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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2010

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission file number: 001-14895

AVI BioPharma, Inc.

(Exact name of registrant as specified in its charter)

Oregon	**93-0797222**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)
3450 Monte Villa Parkway, Suite 101 Bothell, Washington	**98021**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (425) 354-5038

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Exchange on Which Registered
Common Stock, $0.0001 par value	**The NASDAQ Stock Market LLC (The NASDAQ Global Market)**

Securities registered pursuant to Section 12(g) of the Act:
None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☐ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☒
Non-accelerated filer	☐ (Do not check if a smaller reporting company)	Smaller reporting company	☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant as of June 30, 2010 was approximately $136,667,337.

The number of outstanding shares of the registrant's common stock as of the close of business on February 28, 2011 was 112,561,377.

DOCUMENTS INCORPORATED BY REFERENCE

The issuer has incorporated into Part III of this Annual Report on Form 10-K, by reference, portions of its definitive Proxy Statement for its 2011 annual meeting.

AVI BioPharma, Inc.
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PART I

Item 1. Business.

Forward-Looking Information

This Annual Report on Form 10-K, including the "Management's Discussion and Analysis of Financial Condition and Results of Operation" section in Item 7, and other materials accompanying this Annual Report on Form 10-K contain forward-looking statements or incorporate by reference forward-looking statements. The statements contained in this Annual Report on Form 10-K that are not purely historical are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements are identified by words such as "believe," "anticipate," "expect," "intend," "plan," "will," "may," and other similar expressions. You should read these statements carefully because they discuss future expectations, contain projections of future results of operations or financial condition, or state other "forward-looking" information. These statements relate to our future plans, objectives, expectations, intentions and financial performance and the assumptions that underlie these statements. These forward-looking statements include, but are not limited to:

- *our expectations regarding the development and clinical benefits of our product candidates;*
- *the results of our research and development efforts and the efficacy of our PMO chemistries and other RNA-based technology;*
- *our expectations regarding our ability to become a leading developer and marketer of RNA-based therapeutics;*
- *our expectations regarding the results of pre-clinical and clinical testing of our product candidates;*
- *our ability to initiate a Phase II clinical trial for AVI-4658 in the first half of 2011 and a pivotal Phase III clinical trial for AVI-4658 in the second half of 2012;*
- *our ability to initiate Phase I clinical trials in 2011 for our three leading anti-viral product candidates (AVI-6002, AVI-6003 and AVI-7100);*
- *the receipt of any required approval from the U.S. Food and Drug Administration, or FDA, or other regulatory approval for our products;*
- *the effect of regulation by FDA and other agencies;*
- *our intention to introduce new products;*
- *our expectations regarding the markets for our products;*
- *acceptance of our products, if introduced, in the marketplace;*
- *the impact of competitive products, product development, commercialization and technological difficulties;*
- *our expectations regarding partnering opportunities and other strategic transactions;*
- *the extent of protection that our patents provide and our pending patent applications may provide, if patents issue from such applications, to our technologies and programs;*
- *our plans to file additional patent applications to enhance and protect our existing intellectual property portfolio;*
- *our ability to invalidate some or all of the claims covered by patents issued to competitors;*
- *our estimates regarding our future revenues, research and development expenses, other expenses, payments to third parties and growth in staffing levels;*
- *our estimate regarding how long our existing cash, cash equivalents and short-term investments, exclusive of receipt of future proceeds pursuant to our contracts with the U.S. government, will be sufficient to finance our operations;*

- *our expectations about funding from the government and other sources; and*
- *the adequacy of funds to support our future operations and our future capital needs.*

All forward-looking statements are based on information available to us on the date of this Annual Report on Form 10-K and we will not update any of the forward-looking statements after the date of this Annual Report on Form 10-K, except as required by law. Our actual results could differ materially from those discussed in this Annual Report on Form 10-K. The forward-looking statements contained in this Annual Report on Form 10-K, and other written and oral forward-looking statements made by us from time to time, are subject to certain risks and uncertainties that could cause actual results to differ materially from those anticipated in the forward-looking statements. Factors that might cause such a difference include, but are not limited to, those discussed in the following discussion and within Part I, Item 1A "Risk Factors" of this Annual Report on Form 10-K.

Overview

We are a biopharmaceutical company focused on the discovery and development of unique RNA-based therapeutics for the treatment of both rare and infectious diseases. Applying our proprietary, highly-differentiated and innovative platform technologies, we are able to target a broad range of diseases and disorders through distinct RNA-based mechanisms of action. We are primarily focused on rapidly advancing the development of our potentially disease-modifying Duchenne muscular dystrophy drug candidates with the intent to realize the product opportunities of such candidates and provide significant clinical benefits. We are also focused on developing therapeutics for the treatment of infectious diseases. By building on the research under our infectious disease programs funded by the U.S. government and leveraging our highly-differentiated, proprietary technology platforms, we are seeking to further develop our research and development competencies and capabilities and identify additional product candidates. We believe that our organizational capabilities will enable us to achieve these goals and become a leading developer and marketer of RNA-based therapeutics for the treatment of both rare and infectious diseases.

Our highly-differentiated RNA-based technologies work at the most fundamental level of biology and potentially could have a meaningful impact across a broad range of human diseases and disorders. Our lead program focuses on the development of disease modifying therapeutic candidates for Duchenne muscular dystrophy, or DMD, a rare genetic muscle wasting disease caused by the absence of dystrophin, a protein necessary for muscle function. AVI-4658 is our lead therapeutic candidate for DMD and is intended to target a substantial group of individuals with DMD. If we are successful in our development efforts, AVI-4658 will address a severe unmet medical need. Data from 17 of the 19 individuals enrolled in our Phase Ib/II trial in the United Kingdom and treated systemically with AVI-4658 demonstrated some generation of novel dystrophin, and one participant exhibited the first ever reported increase in dystrophin positive muscle fibers to greater than 50% of normal. Restoration of dystrophin expression and dystrophin positive fibers is believed to be critical for successful disease modifying treatment of individuals with DMD. We intend to initiate a Phase II trial for AVI-4658 in the first half of 2011 with an objective of entering a pivotal trial in the second half of 2012.

We are also leveraging the capabilities of our RNA-based technology platforms to develop therapeutics for the treatment of infectious diseases. The U.S. Department of Defense, or DoD, has provided significant financial support for the development of therapeutics for Ebola, Marburg, Dengue and influenza. In 2010, we were awarded contracts totaling more than $300 million for the research of select therapeutic candidates. We have attracted DoD's support based in part on our ability to rapidly respond to pathogenic threats by quickly identifying, manufacturing and evaluating novel therapeutic candidates, as discussed in greater detail in the section captioned "—Development Programs—Anti-Viral Programs—Influenza Program" below.

We employ our highly-differentiated and innovative RNA-based technology platforms in both our DMD and infectious disease programs. The basis for our novel RNA-based therapeutics is our phosphorodiamidate-linked morpholino oligomer, or PMO, chemistries. By applying our technologies, we are able to target a broad range of diseases and disorders through distinct RNA-based mechanisms of action. Unlike

other RNA-based therapeutics, our technologies can be used to selectively up-regulate or down-regulate the production of a target protein, or direct the expression of novel proteins involved in human diseases and disorders. Further, we believe the charge-neutral nature of our PMO-based molecules may have the potential to reduce untargeted immune modulatory effects often seen in alternative RNA-based technologies, as well as certain other off-target effects as seen in a recent trial. As a result of our significant scientific advances generated over years of research and development, we believe that our highly-differentiated, proprietary and innovative RNA-based technology platforms, based on charge neutral morpholino oligomers, may represent a significant improvement over traditional RNA-based technologies.

We were incorporated in the State of Oregon on July 22, 1980. Our executive office is located at 3450 Monte Villa Parkway, Suite 101, Bothell, Washington 98021 and our telephone number is (425) 354-5038. Our common stock trades on The NASDAQ Global Market under the symbol "AVII."

This Annual Report on Form 10-K includes our trademarks and registered trademarks, including PMO *plus*™, PMO-X™, AVI BioPharma®, Cytoporter® , NeuGene® and Kepler Pharmaceuticals®. Each other trademark, trade name or service mark appearing in this Annual Report on Form 10-K belongs to its holder.

Where You Can Find Additional Information

We make available free of charge through our investor relations website, www.avibio.com, our annual reports, quarterly reports, current reports, proxy statements and all amendments to those reports as soon as reasonably practicable after such material is electronically filed or furnished with the SEC. These reports may also be obtained without charge by contacting Investor Relations, AVI BioPharma, Inc., 3450 Monte Villa Parkway, Suite 101, Bothell, Washington 98021, e-mail: investorrelations@avibio.com. Our Internet website and the information contained therein or incorporated therein are not intended to be incorporated into this Annual Report on Form 10-K. In addition, the public may read and copy any materials we file or furnish with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549 or may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. Moreover, the SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding reports that we file or furnish electronically with them at www.sec.gov.

Objectives and Business Strategy

We believe that our highly-differentiated RNA-based technology platforms can be used to develop novel pharmaceutical products that treat a broad range of diseases and address key unmet medical needs. We intend to leverage our RNA-based technology platforms, organizational capabilities and resources to become a leading developer and marketer of RNA-based therapeutics, including for the treatment of both rare and infectious diseases, with a diversified portfolio of product candidates and approved products. In pursuit of this objective, we intend to pursue the following activities:

- advancing the development of AVI-4658 and our other drug candidates for the treatment of DMD to realize the product opportunities of such candidates and provide significant clinical benefits;
- successfully executing our government funded infectious disease therapeutic programs and building on and leveraging our experience with such programs to further develop our research and development competences and capabilities and garner additional external funding; and
- leveraging our highly-differentiated, proprietary RNA-based technology platforms to identify additional product candidates and explore various strategic opportunities, including potential partnering, licensing or collaboration arrangements with industry partners.

Development Programs

Our RNA-based drug programs are being clinically evaluated for the treatment of DMD and have also demonstrated promising anti-viral activity in infectious diseases such as Ebola, Marburg, Dengue and H1N1 influenza in certain animal models. Our lead product candidates are at various stages of development summarized below.

Program	Indication	Mechanism	Chemistry	Development Stage	Developer / Collaborator
AVI-4658	DMD (exon 51)	Alternative Splicing	PMO	Phase Ib/II	Proprietary
AVI-6002	Ebola virus	Translation Suppression	PMO*plus*™	Open IND	Proprietary/ U.S. Government
AVI-6003	Marburg virus	Translation Suppression	PMO*plus*™	Open IND	Proprietary/ U.S. Government
AVI-6006	Dengue virus	Translation Suppression	PMO*plus*™	Preclinical	Proprietary/ U.S. Government
AVI-7100	H1N1 influenza virus	Translation Suppression	PMO*plus*™	Preclinical	Proprietary/ U.S. Government

In the table above, under the heading "Development Stage," "Phase Ib/II" indicates clinical safety testing, dosage testing and initial efficacy testing in a limited participant population, "Open IND" indicates that the program is authorized to enter Phase I studies, but human dosing has not yet begun, and "Preclinical" indicates that the program is not authorized to, and has not yet, entered human clinical trials. For purposes of the table, "Development Stage" indicates the most advanced stage of development that has been completed or is ongoing.

Duchenne Muscular Dystrophy Program

DMD is one of the most common fatal genetic disorders affecting children around the world. DMD is a devastating and incurable muscle-wasting disease associated with specific inborn errors in the gene that codes for dystrophin, a protein that plays a key structural role in muscle fiber function. The absence of dystrophin in muscle cells leads to significant cell damage and ultimately causes muscle cell death and fibrotic replacement. The disease occurs in approximately one in every 3,500 male births worldwide. Females are rarely affected by the disorder. Initial symptoms, which usually appear between the ages of three and five, include progressive muscle weakness of the legs and pelvis, manifested as difficulty walking, running or climbing stairs, which eventually spreads to the arms, neck, and other areas. By age ten, braces may be required for walking, and many individuals require full-time use of a wheelchair even before age 12. Eventually muscular degeneration progresses to the point of complete paralysis. Disease progression is also typically associated with respiratory muscle dysfunction and a corresponding difficulty in breathing, which may require ventilatory support, and cardiac muscle dysfunction which may lead to heart failure. DMD is ultimately fatal and death usually occurs before the age of 30. There is currently no disease modifying treatment or cure for DMD.

The yearly cost of care for individuals with DMD is high and increases with disease progression. Although DMD is a rare disease, it represents a substantial product opportunity due to the severity and inexorable progression of the symptoms.

Our lead program is designed to address specific gene mutations that result in DMD by forcing the genetic machinery to skip over an adjacent contiguous piece (i.e., one or more exons) of RNA and, thus, restore the ability of the cell to express a new truncated, but functional, dystrophin protein. We believe that the expression of the dystrophin protein may restore, prevent or slow deterioration of muscle function. In addition to our lead product candidate, AVI-4658, which skips exon 51, we have a second product candidate, AVI-4038, which skips exon 50, and contains the identical sequence that was previously being studied preclinically with the PPMO AVI-5038, and we are confirming potential drug candidates for skipping other exons, including 44, 45 and 53.

AVI-4658. AVI-4658 is a PMO-based therapeutic in clinical development for the treatment of individuals with DMD who have an error in the gene coding for dystrophin that can be treated by skipping exon 51. AVI-4658 targets the most frequent series of mutations that cause DMD. It is estimated that these mutations affect approximately 18% of the DMD population that is potentially treatable with exon skipping therapeutics (approximately 85% of the total DMD population). AVI-4658 has been granted orphan drug designation in the United States and European Union. See "—Government Regulation—Orphan Drug Designation and Exclusivity" for additional information.

In October 2010, we announced results from the most recently completed clinical trial of AVI-4658, AVI Study 28. AVI Study 28 was a Phase Ib/II open label, dose-ranging, clinical trial assessing the safety, tolerability, pharmacokinetics and exploratory efficacy of AVI-4658 in ambulatory individuals with DMD. Participants in AVI Study 28 were between the ages of five and 15 with an error in the gene coding for dystrophin, which was amenable to treatment by skipping exon 51. Participants were dosed once per week for 12 weeks. A total of 19 participants were enrolled and these individuals were assigned to one of six dose cohorts of 0.5, 1.0, 2.0, 4.0, 10.0 or 20.0 mg/kg. Of the 19 participants enrolled, 18 received at least ten of the 12 doses planned in this trial. After completion of dosing, participants were followed for an additional 14 weeks. Muscle biopsies were taken before treatment and 17 participants had a second biopsy at week 14, two weeks after administration of the final dose. The primary objective of the trial was to assess the safety of AVI-4658 at these doses over the 26-week duration of the trial. Secondary trial objectives included assessment of plasma pharmacokinetics, urinary elimination and exploratory endpoints evaluating biological activity and clinical performance. This trial was conducted by investigators in the United Kingdom at the University College London Institute of Child Health / Great Ormond Street Hospital in London and at the Royal Victoria Infirmary in Newcastle-Upon-Tyne. Based on AVI Study 28, we have announced that:

- AVI-4658 was well-tolerated in all participants;
- no drug-related serious adverse events or severe adverse events were detected, except that one participant exhibited deteriorating cardiac function, which was considered probably disease related;
- adverse events were mostly mild or moderate in intensity, not dose-related, and none were considered probably or definitely related to AVI-4658;
- there was substantial and novel dystrophin expression and dystrophin-positive fiber generation in three participants (reaching up to 55% of normal in one subject), which tended to be greatest in the highest two dosing cohorts (10.0 and 20.0 mg/kg);
- new dystrophin expression was correctly localized in muscle cells and was accompanied by restoration of the dystrophin-associated glycoprotein complex, or DGC, a protein complex necessary for the proper function of muscle cells;
- reductions in key inflammatory markers, including the presence of inflammatory cells found in tissues, potentially suggest a favorable alteration in the underlying degenerative disease process;
- no immune response to newly made dystrophin was detected; and
- there was general stability in exploratory markers of participant clinical performance, including cardiac, pulmonary and muscle functional assessments.

We are currently planning the initiation of a Phase II trial for AVI-4658 in the first half of 2011. Clinical Study 4658-US-201, or AVI Study 201, is currently planned as an open-label, single center, dose-finding study to assess safety, tolerability and efficacy of 12 once-weekly intravenous doses of AVI-4658 in ambulatory individuals with genotypically-confirmed DMD who have an error in the gene coding for dystrophin that can be treated by skipping exon 51. We are seeking approval to increase the number of once-weekly doses from 12 to 24. A total of up to 16 participants will be enrolled in parallel into one of three cohorts. The first cohort will be composed of four participants who will receive a weekly dose of 50 mg/kg. The second cohort will be composed of four participants who will receive a weekly dose of 30 mg/kg. The third and final cohort will be composed of up to eight participants who will serve as an untreated, matched comparison group over 24 weeks. Muscle

biopsies of all participants receiving AVI-4658 will be performed prior to study treatment. Participants receiving the 50 mg/kg dose will receive a second biopsy at 12 weeks after initiation of treatment, and participants receiving 30 mg/kg will receive a second biopsy at 24 weeks after initiation of treatment. Exploratory clinical measures of ambulation, muscle function and strength will also be captured and evaluated during the course of the trial. The study will occur at the Nationwide Children's Hospital in Columbus, Ohio. We intend to initiate enrollment in mid-2011 and complete the study in 2012.

AVI-5038. AVI-5038 is a PMO-based therapeutic in pre-clinical development for the treatment of individuals with DMD who have an error in the gene coding for dystrophin that can be treated by skipping exon 50. AVI-5038 uses our peptide conjugated phosphorodiamidate morpholino oligomers, or PPMO, chemistry. AVI-5038 targets a series of mutations estimated to be present in approximately 5% of the DMD population that is potentially treatable with exon skipping therapeutics (approximately 85% of the total DMD population). AVI-5038 has been granted orphan drug designation in the United States and European Union. See "—Government Regulation—Orphan Drug Designation and Exclusivity" for additional information.

Previously, we noted unexpected toxicology findings in the kidney as part of our series of preclinical studies for AVI-5038. Based on those findings, we conducted additional preclinical studies and have not alleviated the toxicity problem. We are currently evaluating alternatives regarding the development of AVI-5038, but in parallel the PMO-based therapeutic, AVI-4038, which contains the same base sequence as AVI-5038, and the identical PMO backbone chemistry, but lacks the conjugated peptide, is being considered for further development options.

Anti-Viral Programs

We are implementing our RNA-based technology platforms in our anti-viral programs for the development of therapeutics to treat viruses, such as Ebola, Marburg, Dengue and influenza. We currently have several contracts with the DoD and its agencies funding these anti-viral programs. Our arrangement with DoD supporting the development of our Ebola and Marburg virus drug candidates provides funding through to approval of a New Drug Application, or NDA, by the U.S. Food and Drug Administration, or FDA. Similarly, our arrangement with DoD supporting the development of our H1N1 influenza drug candidate provides funding for both preclinical studies supporting an Investigational New Drug, or IND, application with the FDA and the entry into a Phase I clinical trial. Without continued funding of these programs we may be unable to continue our development efforts and future funding is subject to availability of budgeted funds from DoD. As of December 31, 2010, we had contracts with the U.S. government pursuant to which we are entitled to receive up to an aggregate of $157.1 million for development of our product candidates, of which $76.1 million had been billed or recognized as revenue and $81.0 million of which relates to development that has not yet been completed and has not been billed or recognized as revenue. For a more detailed description of our contracts with the U.S. government, see "Management's Discussion and Analysis of Financial Condition and Results of Operation—U.S. Government Contracts" below and "Note 7—U.S. Government Contracts" of the financial statements included elsewhere in this Annual Report on Form 10-K.

Hemorrhagic Fever Virus Programs. Our anti-viral therapeutic programs use our translation suppression technology and apply our proprietary PMO*plus*™ chemistry backbone, an advanced generation of our base PMO chemistry backbone that selectively introduces positive charges to its backbone to improve selective interaction between the drug and its target. Our translation suppressing technology is based on Translation Suppressing Oligomers, or TSOs, which are PMO-based compounds that stop or suppress the translation of a specific protein by binding to their specific target sequence in mRNA. We plan to pursue development and regulatory approval of our Ebola and Marburg hemorrhagic fever virus product candidates under the FDA's "Animal Rule." The Animal Rule provides that under certain circumstances where it is unethical or not feasible to conduct human efficacy studies, the FDA may grant marketing approval based on adequate and well-controlled animal studies when the results of those studies establish that the drug or biological product is reasonably likely to produce clinical benefit in humans. Demonstration of the product's safety in humans is still required. See "—Government Regulation —Animal Rule" for additional information. Our lead product candidates in our hemorrhagic fever virus program include AVI-6002 (for the Ebola virus infection), AVI-6003 (for Marburg virus infection) and AVI-6006 (for Dengue virus infection).

Ebola virus. AVI-6002 is designed to treat Ebola virus infection. The hemorrhagic fever caused by the Ebola virus is severe and often fatal in humans. The disease was first recognized in 1976 and is one of two members of a family of RNA viruses called Filoviridae. The disease is generally understood to be endemic to parts of Africa. Onset of illness from Ebola virus is abrupt and symptoms include fever, headache, muscle ache, vomiting and stomach pain. Internal and external bleeding may also be observed in some individuals. There are currently no treatments for Ebola virus infection beyond supportive care.

Marburg virus. AVI-6003 is designed to treat Marburg virus infection. Marburg hemorrhagic fever is another severe and potentially fatal disease in humans that was first recognized in 1967. It is also caused by an RNA virus of the filovirus family and is understood to be endemic to Africa. Onset of the disease is often sudden and the symptoms include fever, chills, nausea, vomiting, chest pain and diarrhea. Increasingly severe symptoms may also include massive hemorrhaging and multiple organ dysfunction. There are currently no treatments for Marburg virus infection beyond supportive care.

Treatment of primates infected with Ebola virus with AVI-6002 achieved up to 80% survival and treatment of primates infected with Marburg virus with AVI-6003 achieved 100% survival, compared to control groups where both viruses were universally lethal. In addition to survival, primates treated with AVI-6002 and AVI-6003 demonstrated improvements in levels of viremia, harmful inflammatory indicators and measurements of virus induced liver damage.

Dengue virus. AVI-6006 is designed to treat Dengue virus infection and Dengue hemorrhagic fever, or DHF, which are caused by one of four closely related viruses. DHF is a more severe form of Dengue infection and can be fatal. Dengue virus is spread via the bite of mosquitoes and is now endemic to at least 100 countries in Asia, the Pacific, the Americas, Africa, and the Caribbean. It is estimated that there are up to 100 million cases of DHF worldwide each year. Symptoms of Dengue infection include high fever, severe headache, joint pain, rash and mild bleeding. Symptoms of DHF include a vascular leak and other symptoms similar to Dengue. When the fever declines, additional symptoms may occur including vomiting, severe abdominal pain and difficulty breathing. The fever decline may also mark a period of time when blood vessels start to leak and cause bleeding. We identified effective viral targeting strategies in cell culture studies conducted in collaboration with laboratories that are experts in the Dengue field. The lead compounds were found to be effective in a mouse lethal challenge model and ferret disease model studies.

Influenza Program.

Our anti-viral therapeutic programs are also focused on the development of our product candidates designed to treat pandemic influenza viruses. AVI-7100 is our lead product candidate for the treatment of influenza and employs our PMO *plus*™ technology. In June 2010, we were awarded a contract under DoD's Transformational Medical Technologies, or TMT, program. This contract funds our activities to develop AVI-7100 as a medical countermeasure against the pandemic H1N1 influenza virus. The contract provides for funding to advance the development of AVI-7100 including studies enabling an IND application with the FDA, the study of a pilot intranasal delivery formulation, and the funding of the entry into a Phase I clinical trial to obtain human safety data to support potential use under an Emergency Use Authorization, or EUA. Additional funding under an earlier contract awarded to us via the TMT program is supporting continued preclinical evaluation of AVI-7100 against H1N1 as well as expanded preclinical evaluation against H5N1 (avian flu) and drug resistant H1N1 and H3N2 flu strains. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—U.S. Government Contracts" for additional information.

In June 2009, the World Health Organization, or WHO, declared a pandemic of H1N1 influenza. The virus was first detected in people in the United States in April 2009 and was referred to as "swine flu" because many of the genes in the virus were very similar to those found in flu viruses that circulate in pigs. The severity of the illness associated with the 2009 H1N1 virus ranged from mild to severe. Symptoms of H1N1 influenza include fever, cough, runny nose, headache, chills and fatigue. Many people infected with H1N1 also have respiratory symptoms without a fever. Severe illness and deaths have also occurred. The Centers for Disease Control and

Prevention, or CDC, estimated that between April 2009 and April 2010 there were up to 89 million cases of H1N1 infection in the United States. The CDC also estimated that there were up to 403,000 H1N1-related hospitalizations in the U.S. during the same time period.

The TMT program established a contract with us to conduct a rapid response exercise against a real-world emerging threat like the pandemic H1N1 virus. The intent of the exercise was to demonstrate our capability to efficiently respond to a real-world emerging viral threat by rapidly designing and producing multiple therapeutic candidates and evaluating preclinical efficacy.

Initially the exercise involved identifying target sequences against H1N1, designing several drug candidates utilizing proprietary derivatives of our PMO chemistry, and then manufacturing the candidates in sufficient quantity for limited preclinical testing. We successfully accomplished these steps in approximately one week, demonstrating our ability to rapidly respond to a real-world viral threat utilizing our RNA-based technology platforms. Additionally, we successfully completed a second formal rapid response exercise commissioned by TMT for our Dengue development program. In 11 days, we demonstrated our capability to efficiently respond to a real-world threat. This exercise involved identifying target sequences against the Dengue virus, designing several drug candidates utilizing proprietary derivatives of our PMO chemistry, and then manufacturing the candidates in sufficient quantity for limited preclinical testing.

Subsequently, we evaluated our RNA-based drug candidates in preclinical studies using a mouse model of seasonal flu and identified two lead candidates, including AVI-7100. The two lead candidates were tested in the more advanced ferret model utilizing a fully virulent human pandemic H1N1 virus. The ferret studies included various treatment groups employing the lead candidates administered via intraperitoneal and intranasal dosing routes, a saline control group, a scrambled RNA sequence control group and a control group dosed with Tamiflu, a standard of care drug. While both lead candidates and routes of administration were indicative of activity versus all controls, AVI-7100 demonstrated overall superiority over our other H1N1 candidate.

On March 11, 2011, we received a letter from the FDA indicating that our initial response to a clinical hold letter from the FDA for AVI-7100 was incomplete. The letter requested additional information related to our background technology to clarify information that we provided in our previous response to the clinical hold letter. We are working to respond on an expedited basis to provide the FDA with this information. If the FDA is satisfied with our follow-up response we believe we will be able to initiate our Phase I clinical trial on AVI-7100 in the first half of 2011.

Discovery Stage Program Overview

Our PMO-chemistries work at a fundamental level of biology through distinct mechanisms by targeting RNA, the carrier of genetic information. Our RNA-based platform technologies are highly-differentiated from other RNA technologies, including antisense, siRNA and RNAi. Unlike these technologies, which result in down-regulation of gene expression, ours can be used to selectively up-regulate or down-regulate the expression of proteins involved in human diseases and disorders, or direct the production of novel proteins with clinically relevant properties.

In the research we have conducted using our RNA-based technologies we have evaluated compounds against diseases and disorders including:

- select genetic diseases;
- viruses, including Dengue and polio;
- gram negative and positive bacteria, including burkholderia and anthrax; and
- toxins, including ricin.

One of our drug candidates is in clinical development, while our others are at preclinical or discovery stage. Additional potential applications include therapeutics against infectious diseases, dermatological disorders,

cancer, inflammatory disease and other applications with significant relevance to human health. Our technologies may also have applications in connection with other therapeutic approaches such as stem cell therapy.

AVI Chemistry Technology

Our core chemistry is based on phosphorodiamidate-linked morpholino oligomers, or PMOs. PMOs are synthetic molecules based on a fundamental redesign of the natural nucleic acid structure of DNA and RNA. PMOs bind to complementary sequences of RNA by standard Watson-Crick nucleic acid base-pairing. Structurally, the key difference between PMOs and naturally occurring DNA and RNA is that while PMOs have standard nucleic acid bases, those bases are bound to synthetic morpholine rings instead of deoxyribose (in DNA) or ribose (in RNA) rings, and they are linked through phosphorodiamidate groups instead of phosphate groups. Replacement of anionic phosphates with the neutrally charged phosphorodiamidate groups eliminates ionization in the usual physiological pH range, thus PMOs in organisms or cells are uncharged molecules. Because of these modifications, PMOs are very resistant to degradation by plasma and intracellular enzymes and control gene expression by steric blockade of targeted RNA. Unlike other RNA-based technologies, including siRNAs, PMOs do not need to interact with RNA-Induced Silencing Complex, or RISC, or the RNase H enzyme to be biologically active. In this way, PMOs operate fundamentally differently from other RNA-based technologies.

We have developed three new PMO-based chemistry platforms in addition to our original PMO-based technology. These new modified chemistries have been specifically designed to allow for molecular modulation and “dial-in” of desired performance attributes in drug candidates that align to specific therapeutic applications. We believe that the novel, favorable characteristics intrinsic in these new platforms will allow for the development of drug candidates with superior drug-like properties.

PPMO. The first of these novel chemistries is based on peptide conjugated phosphorodiamidate morpholino oligomers, or PPMOs, in which cellular uptake of the active PMO’s component, as well as its potency and specificity of tissue targeting, may be significantly enhanced.

PMOplus™. The second of these chemistries, PMO*plus*™, includes the addition of selectively introduced positive charges to certain monomers in the core PMO backbone. We believe that while PMO*plus*™ has potentially broad therapeutic applications, it may be particularly effective in overcoming the viral mutations that make certain RNA viruses drug-resistant.

PMO-X™. The third of these chemistries, PMO-X™, further enhances the favorable properties of our core PMO chemistries by introducing novel, selective, and proprietary backbone chemistry modifications which allow us to physicochemically tune the biologic performance properties of new oligomers. We believe PMO-X™ may provide enhanced in vivo potency for our drug candidates and provide greater flexibility in modulation of their tissue targeting, cellular delivery and uptake.

We intend to continue to support our internal research and development efforts in order to advance our proprietary chemistries and to develop new analogues that may provide additional benefits in key characteristics of drug performance.

AVI Mechanisms

The Human Genome Project revealed that humans have far fewer genes than would have been predicted from the number of unique proteins that are expressed in the human proteome. The genetic information stored in human DNA is not contiguous. Short DNA stretches, called exons that code for fragments of the protein are separated by long non-coding pieces of DNA called introns. During processing of precursor or pre-mRNA, which is copied from the DNA template, introns are removed and exons spliced together to create the mature mRNA. Thus, in mRNA, the genetic information is contiguous in spliced together exons and from this a functional protein can be made. Pre-mRNA splicing can also follow alternative paths, such that different exons are combined, creating multiple mRNAs from the same pre-mRNA and, hence, generate multiple proteins, all from the same gene. Latest estimates

indicate that approximately 90% of all human genes are alternatively spliced and therefore code for a number of different proteins from a single gene. Thus, for the majority of genes, alternative splicing produces multiple proteins that can have slightly or profoundly different functions. Some pairs of splice variants code for proteins that have exactly opposite effects. Alternative splicing pathways are involved in many different diseases such that pathological protein isoforms are overproduced and the physiological isoforms are decreased.

Our PMO-based molecules have intrinsic design flexibility and therefore can be constructed for distinct bio-mechanistic purposes. Our programs currently apply our PMO technologies to bind to either specifically targeted pre-mRNAs or mRNAs. Through this selective targeting, two distinct biologic mechanisms of action can be initiated: (1) modulation of pre-mRNA splicing (also commonly described as splice switching, exon skipping or directed alternative splicing) and (2) inhibition of mRNA translation (also commonly described as translation suppression). Further, our PMO-based molecules are neutrally charged, which reduces untargeted immune modulatory effects often seen in alternative RNA-based technologies.

Splice Switching Oligomers. Splice Switching Oligomers, or SSOs, are PMO-based compounds that can direct the natural alternative splicing mechanism of pre-mRNA by forcing the cellular splicing machinery towards specific desired splicing outcomes and producing an mRNA for a desired protein. We believe that the emerging field of directed alternative splicing represents a novel and very promising mechanism for gene regulation. Our SSOs exploit pre-mRNA splicing to control gene function and may produce a therapeutic benefit by both systemically or locally suppressing the production of targeted disease-associated proteins, as well as systemically or locally increasing production of favorable proteins, changing the quantitative balance of different protein isoforms in vivo, or directing the expression of novel human proteins (i.e., proteins that are structurally and immunologically fully human, but which are not natively seen in the human body). For example, our SSO technology application is being used in our DMD program and data from 17 of the 19 individuals enrolled and treated systemically with AVI-4658 in our Phase Ib/II clinical trial demonstrated some generation of novel dystrophin, and one participant exhibited the first ever reported increase in dystrophin positive muscle fibers to greater than 50% of normal. We believe this powerful mechanism may provide significant benefits when used for intervention in disease-causing processes.

By targeting elements in pre-mRNA that are essential for splicing, SSO compounds force the cellular machinery to skip over targeted exons, creating an altered mRNA template. SSOs can be designed to prevent formation of harmful proteins and/or help to restore beneficial proteins. For example, when an exon contains a disease-causing mutation or when one or more exons are missing from the gene sequence entirely, directed skipping of targeted exons in the pre-mRNA may allow for production of an altered protein with a desired therapeutic functionality. This approach represents a potential approach to overcome the devastating consequences of certain disease-causing mutations, such as those found in DMD.

Directed alternative splicing has emerged as a ubiquitous and dynamic mechanism for gene regulation. Supported by a growing stream of new insights and discoveries derived from the fields of genomics, bioinformatics and molecular biology, we believe that this area promises to be a rich source of therapeutic applications. The ability to repair mRNA and restore missing essential protein is unique to SSO technology. Antisense and siRNA based technologies can only reduce the level of undesirable proteins.

Translation Suppressing Oligomers. Translation Suppressing Oligomers, or TSOs, are PMO-based compounds that interfere with gene expression and other RNA-dependent cellular processes by binding to their specific target sequence in mRNA. The primary application of TSOs is to stop or suppress the translation of a specific protein through this binding process, thus selectively inhibiting the translation of the targeted protein and thereby reducing its harmful effect. Our TSO compounds demonstrate tight and selective RNA binding and act by a direct steric-blocking mechanism instead of by RNAse H-mediated or RISC-mediated RNA degradation.

Material Agreements and Strategic Alliances

We believe that our RNA-based technology could be broadly applicable for the potential development of pharmaceutical products in many therapeutic areas. To further exploit our core technology, we may periodically

enter into research, development or commercialization alliances with pharmaceutical and biotechnology companies for specific molecular targets or selected disease indications. We may also selectively pursue opportunities to access certain intellectual property rights that complement our internal portfolio through license agreements or other arrangements.

U.S. Department of Defense Agreements

We currently have several contracts with the U.S. Department of Defense, or DoD, and its agencies funding our programs. For a more detailed description of our contracts with the U.S. government, see "Management's Discussion and Analysis of Financial Condition and Results of Operation—U.S. Government Contracts" below and "Note 7—U.S. Government Contracts" of the financial statements included elsewhere in this Annual Report on Form 10-K.

University of Western Australia

In November 2008, we entered into an exclusive license with the University of Western Australia, or UWA, for certain patents and technical information relating to the use of certain antisense sequences for the treatment of DMD. The license grants us specific rights to the treatment of DMD by inducing the skipping of certain exons defined in the agreement. Unless earlier terminated in accordance with the terms of the agreement, such agreement will expire on the expiration date of the last to expire patent within the patents licensed to us under the agreement. Our clinical candidate, AVI-4658, falls under the scope of this agreement. Any future drug candidates developed for the treatment of DMD by exon skipping may or may not fall under the scope of this agreement.

Under the agreement, we are required to meet certain performance diligence obligations related to development and commercialization of products developed under license. We believe we are currently in compliance with these obligations. We made an initial upfront payment to UWA on execution of the license. We may be required to make additional payments to UWA of up to $150,000 based on successful achievement of certain regulatory-related milestones and also may be required to pay royalties ranging from a fraction of a percent to the low single digits on net sales of products covered by issued patents licensed from UWA during the term of the agreement. As of December 31, 2010, we have not made, and are not under any current obligation to make, any such milestone or royalty payments to UWA. We believe, however, that a milestone payment obligation of $10,000 to UWA may be triggered in 2011.

Strategic Alliances

Isis—Ercole Agreement

In May 2003, Ercole Biotechnology, Inc., or Ercole, and Isis Pharmaceuticals, or Isis, entered into a collaboration and license agreement related to RNA splicing. We assumed Ercole's obligations under this agreement when we acquired Ercole in March 2008. This agreement contains several cross-licenses between the parties granting each party certain exclusive and nonexclusive rights under a selected set of the other parties' patents and patent applications for the research, development, and commercialization of antisense therapeutics using RNA splicing with respect to certain gene targets.

Subject to the satisfaction of certain milestones triggering the obligation to make any such payments, we may be obligated to make milestone payments to Isis of up to $23.4 million in the aggregate for each product developed under a licensed patent under this agreement.

As of December 31, 2010, we have not made, and are not under any current obligation to make, any such milestone payments, as the conditions triggering any such milestone payment obligations have not been satisfied. The range of percentage royalty payments required to be made by us under the terms of this agreement is from a fraction of a percent to mid single digits. We believe that our DMD, Ebola, Marburg and influenza programs will not fall under the scope of this agreement and therefore will not be subject to milestone or royalty obligations under its provisions.

Subject to the satisfaction of certain milestones triggering the obligation to make any such payments, Isis may be obligated to make milestone payments to us of up to $21.1 million in the aggregate for each product developed under a licensed patent under this agreement. As of December 31, 2010, Isis has not made, and is not under any current obligation to make, any such milestone payments, as the conditions triggering any such milestone payment obligations have not been satisfied. The percentage royalty payments required to be made by Isis under the terms of this agreement is a fraction of a percent. As to any product commercialized under the agreement, the agreement will terminate on the expiration date of the last to expire licensed patent covering such product. Research collaboration activity defined in the agreement expired in 2006.

Eleos Agreement

In January 2007, we entered into a cross-license agreement with Eleos Inc., or Eleos, for the development of antisense products targeting p53, a well-studied human protein that controls cellular response to genetic damage. Under the terms of the agreement, we granted Eleos an exclusive license to certain of our intellectual property related to treatment of cancer with p53-related drugs. In return, Eleos granted us an exclusive license to its intellectual property related to treatment of most viral diseases with drugs that target p53. The companies are sharing rights under their respective intellectual property rights licensed under the agreement in other medical fields where targeting p53 may be therapeutically useful. Subject to the satisfaction of certain development and commercialization milestones, Eleos may be obligated to make milestone payments of up to $19.5 million in the aggregate with respect to products resulting from Eleos' use of our intellectual property licensed to Eleos under the agreement. Additionally, subject to the satisfaction of certain development and commercialization milestones, we may be obligated to make milestone payments of up to $19.5 million in the aggregate with respect to products resulting from our use of the intellectual property Eleos licensed to us under the agreement. As of December 31, 2010, neither we nor Eleos have made, and neither we nor Eleos are under any current obligation to make, any such milestone payments, as the conditions triggering any such milestone payment obligations have not been satisfied. Percentage royalty payments required to be made by Eleos to us under the terms of this agreement range from low single digits to the low double digits on net sales of products covered by or otherwise resulting from Eleos' use of our intellectual property licensed to Eleos under the agreement. We are required to pay to Eleos a low double digits percentage royalty on net sales of products covered or otherwise resulting from our use of Eleos' intellectual property licensed to us under the agreement. We recognized $125,000 in revenue from this agreement in each of the fiscal years ending December 31, 2010, 2009 and 2008. This agreement will terminate as of the later of (1) the expiration date of the last to expire patent licensed under the agreement having claims covering a product resulting from the use of the AVI or Eleos intellectual property licensed under the agreement, and (2) 10 years from the date of the first commercial sale of a product using either our or Eleos intellectual property licensed under the agreement.

Charley's Fund Agreement

In October 2007, Charley's Fund, Inc., or Charley's Fund, a nonprofit organization that funds drug development and discovery initiatives specific to DMD, awarded us a $2.45 million research grant. Pursuant to the related sponsored research agreement, the grant would support the development of product candidates using our proprietary exon skipping technologies to overcome the effects of certain genetic errors in the dystrophin gene. The sponsored research agreement was amended in May 2009. Under the terms of the May 2009 amendment, subject to the satisfaction of certain milestones, Charley's Fund agreed that it would pay up to an additional $3.0 million over and above the $2.0 million it had already paid to us at the time of the execution of the amendment. As of December 31, 2010, Charley's Fund has made an aggregate of $3.3 million in payments to us. Revenue associated with this research and development arrangement is recognized based on proportional performance method, using the payment received method. We recognized $0, $0 and $23,000 in revenue from Charley's Fund for the years ended December 31, 2010, 2009 and 2008, respectively.

Under the terms of the sponsored research agreement, as amended, if we and any of our strategic partners elect to discontinue the development and commercialization of any product containing any molecular candidate arising or derived from the research sponsored by Charley's Fund for reasons other than safety or efficacy, we must grant to Charley's Fund an exclusive, royalty-bearing, fully-paid, worldwide license, with right of

sublicense, to any such product. Depending on whether and when Charley's Fund obtains a license to any such product, percentage royalty payments on net sales required to be made by Charley's Fund to us under the terms of the sponsored research agreement, as amended, would be in the mid single digits. Under the terms of the sponsored research agreement, as amended, if we are able to successfully commercialize any molecular candidate arising or derived from the research sponsored by Charley's Fund either through sales of products or through licensing or partnership arrangements with a third party that include rights for such third party to sell, distribute, promote or market such products or the underlying intellectual property, then we are obligated to repay the research funds paid to us by Charley's Fund, up to an amount equal to the total amount of funds provided by Charley's Fund to us. In connection with this repayment obligation, we agreed that we would pay a mid range single-digit percentage royalty on net sales of products containing any molecular candidate arising or derived from the research sponsored by Charley's Fund and a mid-teens amount of any upfront cash and/or milestone payments received from a licensing or partnership arrangement with a third party with respect to such products (in each case, up to an amount equal to the total amount of funds provided by Charley's Fund to us). This agreement will terminate by its own terms at the completion of the research being sponsored by Charley's Fund. The AVI technology upon which the agreement is based is covered by certain patents, the last of which expires following the termination of the agreement.

Previously, we noted unexpected toxicology findings in the kidney as part of our series of preclinical studies for AVI-5038. We have conducted additional preclinical studies and have not alleviated the toxicity problem. Pursuant to the terms of our agreement with Charley's Fund, the receipt of additional funds is tied to the satisfaction of certain clinical milestones. Because of the toxicity issues with AVI-5038, satisfaction of the additional milestones under the agreement is unlikely. We are currently evaluating alternatives regarding the development of AVI-5038, but in parallel the PMO-based therapeutic, AVI-4038, which contains the same base sequence as AVI-5038, and the identical PMO backbone chemistry, but lacks the conjugated peptide, is being considered for further development options.

Manufacturing

We believe we have developed proprietary manufacturing techniques that could allow synthesis and purification of our product candidates to support up to Phase II clinical development. We have entered into certain manufacturing and supply arrangements with third party suppliers which will in part utilize these techniques to support development of certain of our product candidates. We have additionally contracted with several suppliers of commercial active pharmaceutical ingredients, or APIs, to develop, scale-up the manufacture process, and ultimately manufacture our products to support commercialization. We do not have, and do not intend to establish in the near term, any of our own internal manufacturing capability to support our product candidates.

For our Ebola and Marburg hemorrhagic fever virus development programs, we have entered into supply agreements with two multinational manufacturing firms for the production of the API for Ebola and Marburg therapeutics. There is a limited number of companies that can produce PMO in the quantities and with the quality and purity that we require for our development efforts. If we are required to seek alternative supply arrangements, the resulting delays and potential inability to find a suitable replacement could materially and adversely impact our business.

We also have supply arrangements with several preferred manufacturing firms for the production of the custom raw materials required for PMO production. We believe there are several contract manufacturers capable of manufacturing these materials, and as our products advance, more suppliers might become necessary; however, establishing a relationship with alternative suppliers can be a lengthy process and might cause delays in our development efforts and could materially and adversely impact our business.

Manufacturers and suppliers of product candidates are subject to the FDA's current Good Manufacturing Practices, or cGMP, requirements, and other rules and regulations prescribed by foreign regulatory authorities. We depend on our third party suppliers and manufacturers for continued compliance with cGMP requirements and applicable foreign standards.

Sales and Marketing Strategy

We have not obtained regulatory approval for any of our product candidates. If we obtain approval for any of our products, we may retain all or certain commercialization rights to those products, and / or enter into arrangements with other pharmaceutical or biotechnology companies for the marketing and sale of our products.

Patents and Proprietary Rights

Our success depends in part upon our ability to protect our core technology and intellectual property. To accomplish this, we rely on a combination of intellectual property rights, including patents, trade secrets, copyrights and trademarks, and contractual protections.

We seek appropriate patent protection for our proprietary technologies by filing patent applications in the United States and other countries. As of February 28, 2011, we owned or held exclusive or partially exclusive licenses to approximately 189 U.S. and corresponding foreign patents and 181 U.S. and corresponding foreign patent applications. We intend to protect our proprietary technology with additional filings as appropriate.

Our patents and patent applications are directed to our product candidates as well as to our RNA-based technology platforms. Although we believe our patents and patent applications provide us with a competitive advantage, the patent positions of biotechnology and pharmaceutical companies can be uncertain and involve complex legal and factual questions. We and our corporate collaborators may not be able to develop patentable products or processes or obtain patents from pending patent applications. Even if patent claims are allowed, the claims may not issue, or in the event of issuance, may not be sufficient to protect the technology owned by or licensed to us or our corporate collaborators. For example, we are aware of a European patent to which Prosensa has rights that may provide the basis for Prosensa or other parties that have rights to patent to assert that our drug AVI-4658 infringes on such patent. We are currently opposing this patent in the Opposition Division of the European Patent Office and believe that we may be able to invalidate some or all of the claims covered by this patent and non-U.S. foreign equivalents.

Our clinical product candidates are protected by composition and use patents and patent applications. Patent protection afforded by the patents and patent applications covering our product candidates will expire over various time frames.

Some of our patents on core technologies expired in 2008, including a patent for our basic PMO chemistry. However, as we continue to advance the research supporting our PMO-based technologies, we believe that the patented and likely patentable improvements we are developing will provide the necessary basis for freedom to develop and commercialize our products. We also rely on trade secrets and proprietary know-how, especially when we do not believe that patent protection is appropriate or can be obtained. Our policy is to require each of our employees, consultants and advisors to execute a confidentiality and inventions assignment agreement before beginning their employment, consulting or advisory relationship with us. These agreements provide that the individual must keep confidential and not disclose to other parties any confidential information developed or learned by the individual during the course of their relationship with us except in limited circumstances. These agreements also provide that we shall own all inventions conceived by the individual in the course of rendering services to us.

We are the owner of three registered trademarks in the United States for AVI BioPharma®, Cytoporter® and NeuGene®. We have two pending trademark applications for PMOplus™ and PMO-X™. We are the owner of international trademark registrations for Kepler Pharmaceuticals ® in Europe, Australia, Japan, New Zealand, Norway and Switzerland. We have pending international trademark applications for AVI BioPharma in the European Union and Australia.

We have licensed certain technology to supplement and support certain of our core technologies. We have certain obligations and minimum royalties under those agreements, which costs are not material to our business.

Our commercial success will depend in part on obtaining and maintaining patent protection and trade secret protection of the use, formulation and structure of our product candidates, and the methods used to manufacture them, as well as successfully defending these patents against third-party challenges. Our ability to protect our product candidates from unauthorized making, using, selling, offering to sell or importing by third parties is dependent on the extent to which we have rights under valid and enforceable patents that cover these activities.

We do not have patents or patent applications in every jurisdiction where there is a potential commercial market for our product candidates. For each of our programs, our decision to seek patent protection in specific foreign markets, in addition to the United States, is based on many factors, including:

- our available resources;
- the size of the commercial market;
- the presence of a potential competitor in the market;
- and whether the legal authorities in the market effectively enforce patent rights.

We continually evaluate our patent portfolio and patent strategy and believe our owned and licensed patents and patent applications provide us with a competitive advantage; however, if markets where we do not have patents or patent applications become commercially important, our business may be adversely affected.

The patent positions of pharmaceutical, biotechnology and other life sciences companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in biotechnology patents has emerged to date in the United States, and tests used for determining the patentability of patent claims in all technologies are in flux. The pharmaceutical, biotechnology and other life sciences patent situation outside the United States is even more uncertain. Changes in either the patent laws or in interpretations of patent laws in the United States and other countries may diminish the value of our intellectual property. Accordingly, we cannot predict the breadth of claims that may be allowed or enforced in the patents that we own or have licensed or in third-party patents.

Government Regulation

The testing, manufacturing, labeling, advertising, promotion, distribution, export and marketing of our products are subject to extensive regulation by governmental authorities in the United States and in other countries. In the United States, the FDA, under the Federal Food, Drug and Cosmetic Act, or FDCA, and its implementing regulations, regulates pharmaceutical products. Failure to comply with applicable U.S. requirements may subject us to administrative or judicial sanctions, such as FDA refusal to approve pending NDAs, withdrawal of approval of approved products, warning letters, untitled letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, civil penalties and/or criminal prosecution.

Drug Approval Process

To obtain FDA approval of a product candidate, we must, among other things, submit data providing substantial evidence of safety and efficacy of the product, as well as detailed information on the manufacture and composition of the product candidate and proposed labeling. The testing and collection of data and the preparation of necessary applications are expensive and time-consuming. The FDA may not act quickly or favorably in reviewing these applications, and we may encounter significant difficulties or costs in our efforts to obtain FDA approvals that could delay or preclude us from marketing our products.

The steps required before a drug may be approved for marketing in the United States generally include:

- preclinical laboratory tests and animal tests;
- submission to the FDA of an Investigational New Drug Application, or IND, for human clinical testing, which must become effective before human clinical trials commence;

- adequate and well-controlled human clinical trials to establish the safety and efficacy of the drug product for each indication;
- the submission to the FDA of a New Drug Application, or NDA;
- satisfactory completion of an FDA inspection of the manufacturing facilities at which the product is made to assess compliance with cGMP;
- potential FDA audit of the nonclinical and clinical trial sites that generated the data in support of the NDA; and
- FDA review and approval of the NDA.

Preclinical studies may include laboratory evaluations of the product chemistry, toxicity, and formulation, as well as animal studies to assess the potential safety and efficacy of the product candidate. The conduct of the preclinical tests and formulation of the compounds for testing must comply with federal regulations and requirements. The results of the preclinical studies, together with manufacturing information and analytical data, are submitted to the FDA as part of the IND, which must become effective before clinical trials may be commenced. The IND will become effective automatically 30 days after receipt by the FDA, unless the FDA raises concerns or questions about the conduct of the clinical trials as described in the protocol submitted as part of the IND prior to that time. In this case, the trials are placed on clinical hold, and the IND sponsor and the FDA must resolve any outstanding concerns before clinical trials can proceed. For example, on March 11, 2011, we received a letter from the FDA indicating that our initial response to a clinical hold letter from the FDA for AVI-7100 was incomplete. The letter requested additional information related to our background technology to clarify information that we provided in our previous response to the clinical hold letter. We are working to respond on an expedited basis to provide the FDA with this information. If the FDA is satisfied with our follow-up response we believe we will be able to initiate our Phase I clinical trial on AVI-7100 in the first half of 2011.

Clinical trials involve the administration of the product candidate to healthy volunteers or participants under the supervision of a qualified principal investigator. Clinical trials are conducted under protocols detailing the objectives of the study, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated. Each protocol must be submitted to the FDA as part of the IND. Clinical trials must be conducted in accordance with the FDA's good clinical practices requirements and state subject rights laws. Further, each clinical trial must be reviewed and approved by an independent institutional review board, or IRB, at or servicing each institution at which the clinical trial will be conducted. The IRB will consider, among other things, clinical trial design, participant informed consent, ethical factors, the safety of human subjects, and the possible liability of the institution. The FDA may order the partial, temporary or permanent discontinuation of a clinical trial at any time or impose other sanctions if it believes that the clinical trial is not being conducted in accordance with FDA requirements or presents an unacceptable risk to the clinical trial subjects. The IRB may also require the clinical trial at that site to be halted, either temporarily or permanently, for failure to comply with the IRB's requirements, or may impose other conditions.

Clinical trials typically are conducted in three sequential phases prior to approval, but the phases may overlap. A fourth, or post-approval, phase may include additional clinical studies. These phases generally include the following:

- *Phase I*. Phase I clinical trials involve the initial introduction of the drug into human subjects, frequently healthy volunteers. These studies are designed to determine the safety of usually single doses of the compound and determine any dose limiting intolerance , as well as evidence of the metabolism and pharmacokinetics of the drug in humans. Phase I studies usually involve less than 100 subjects and are most commonly conducted in healthy adult volunteers.
- *Phase II*. Phase II clinical trials usually involve studies in a limited patient population to evaluate the efficacy of the drug for specific, targeted indications, to determine dosage tolerance and optimal dosage, and to identify possible adverse effects and safety risks. Phase II studies usually involve patients with the disease under investigation and numbers may vary from several dozen to several hundred.

- *Phase III*. If a compound is found to be potentially effective and to have an acceptable safety profile in Phase II (or sometimes Phase I) studies, the clinical trial program will be expanded to further confirm clinical efficacy, optimal dosage and safety within an expanded patient population which may involve geographically dispersed clinical trial sites. Phase III studies usually include several hundred to several thousand patients. Generally, two adequate and well-controlled Phase III clinical trials are required by the FDA for approval of an NDA.
- *Phase IV*. Phase IV clinical trials are studies required of or agreed to by a sponsor that are conducted after the FDA has approved a product for marketing. These studies are used to gain additional experience from the treatment of patients in the intended therapeutic indication and to document a clinical benefit in the case of drugs approved under accelerated approval regulations. If the FDA approves a product while a company has ongoing clinical trials that were not necessary for approval, a company may be able to use the data from these clinical trials to meet all or part of any Phase IV clinical trial requirement. Failure to promptly conduct Phase IV clinical trials could result in withdrawal of approval for products approved under accelerated approval regulations.

A company seeking marketing approval for a new drug in the United States must submit to the FDA the results of the preclinical and clinical trials, together with, among other things, detailed information on the manufacture and composition of the product candidate and proposed labeling, in the form of an NDA, including payment of a user fee. The FDA reviews all NDAs submitted before it accepts them for filing and may request additional information rather than accepting an NDA for filing. Once the submission is accepted for filing, the FDA begins an in-depth review of the NDA. Under the goals and policies agreed to by the FDA under the Prescription Drug User Fee Act, or PDUFA, the FDA has ten months in which to complete its initial review of a standard NDA and respond to the applicant, and six months for a priority NDA. The FDA does not always meet its PDUFA goal dates for standard and priority NDAs. The review process and the PDUFA goal date may be extended by three months if the FDA requests or the NDA sponsor otherwise provides additional information or clarification regarding information already provided in the submission within the last three months before the PDUFA goal date. If the FDA's evaluations of the NDA and the clinical and manufacturing procedures and facilities are favorable, the FDA may issue an approval letter. If the FDA finds deficiencies in the NDA, it may issue a complete response letter, which contains the conditions that must be met in order to secure final approval of the NDA. If and when those conditions have been met to the FDA's satisfaction, the FDA will issue an approval letter, authorizing commercial marketing of the drug for certain indications. If the FDA's evaluation of the NDA submission and the clinical and manufacturing procedures and facilities is not favorable, the FDA may refuse to approve the NDA. Sponsors that receive a complete response letter may submit to the FDA information that represents a complete response to the issues identified by the FDA. Resubmissions by the NDA sponsor in response to a complete response letter trigger new review periods of varying length (typically two to six months) based on the content of the resubmission. The FDA may also refer an application to an appropriate advisory committee, typically a panel of clinicians, for review, evaluation and a recommendation as to whether the application should be approved. The FDA is not bound by the recommendations of the advisory committee.

The FDA has various programs, including fast track, priority review, and accelerated approval (Subpart H), that are intended to expedite or simplify the process for reviewing drugs, and/or provide for approval on the basis of surrogate endpoints or restricted distribution. Generally, drugs that may be eligible for one or more of these programs are those for serious or life-threatening conditions, those with the potential to address unmet medical needs, and those that provide meaningful benefit over existing treatments. We were granted fast track status for AVI-4658 in 2007. We cannot be sure that any of our other drug candidates will qualify for any of these programs, or that, if a drug does qualify, that the review time will be shorter than a standard review.

Often, even after a drug has been approved by the FDA for sale, the FDA may require that certain post-approval requirements be satisfied, including the conduct of additional clinical studies. If such post-approval conditions are not satisfied, the FDA may withdraw its approval of the drug. In addition, holders of an approved NDA are required to:

- report certain adverse reactions to the FDA;

- submit annual and periodic reports summarizing product information and safety data;
- comply with certain requirements concerning advertising and promotional labeling for their products; and
- continue to have quality control and manufacturing procedures conform to cGMP after approval.

The FDA periodically inspects the sponsor's records related to safety reporting and/or manufacturing; this latter effort includes assessment of compliance with cGMP. Accordingly, manufacturers must continue to expend time, money, and effort in the area of production and quality control to maintain cGMP compliance. Discovery of problems with a product after approval may result in restrictions on a product, manufacturer, or holder of an approved NDA, including withdrawal of the product from the market.

Many other countries and jurisdictions have similar drug development and regulatory review processes. We have conducted clinical trials in the United Kingdom and intend to submit for marketing approval in countries other than the United States. Therefore, we will have to comply with the legal and regulatory requirements in the countries where we conduct trials and submit for marketing approval.

Animal Rule

In the case of product candidates that are intended to treat rare life-threatening diseases, such as infection caused by exposure to various hemorrhagic fever viruses, conducting controlled clinical trials to determine efficacy may be unethical or unfeasible. Under regulations issued by the FDA in 2002, often referred to as the animal rule, the approval of certain such products can be based on clinical data from trials in healthy subjects that demonstrate adequate safety, and immunogenicity and efficacy data from adequate and well-controlled animal studies. Human trials demonstrating the safety of the product are generally also required. Among other requirements, the animal studies must establish that the drug or biological product is reasonably likely to produce clinical benefits in humans. Because the FDA must agree that data derived from animal studies may be extrapolated to establish safety and effectiveness in humans, seeking approval under the animal rule adds significant time, complexity and uncertainty to the testing and approval process. No animal model is established as predicting human outcomes in the prevention or treatment of any filovirus disease. We have yet to demonstrate the predictive value of our animal studies to the FDA's satisfaction. In addition, products approved under the animal rule are subject to additional requirements including post-marketing study requirements, restrictions imposed on marketing or distribution or requirements to provide information to patients.

Emergency Use Authorization

The Secretary of the Department of Health and Human Services, or DHHS, may, under certain circumstances, issue an Emergency Use Authorization, or EUA that would permit the use of unapproved drug products. Before an EUA may be issued, the Secretary must declare an emergency based on one of the following grounds:

- a determination by the Secretary of Department of Homeland Security that there is a domestic emergency, or a significant potential for a domestic emergency, involving a heightened risk of attack with a specified biological, chemical, radiological or nuclear agent or agents;
- a determination by the Secretary of the DoD that there is a military emergency, or a significant potential for a military emergency, involving a heightened risk to United States military forces of attack with a specified biological, chemical, radiological, or nuclear agent of agents; or
- a determination by the Secretary of the DHHS of a public health emergency that effects or has the significant potential to affect, national security, and that involves a specified biological, chemical, radiological, or nuclear agent or agents, or a specified disease or condition that may be attributable to such agent or agent.

In order to be the subject of an EUA, the FDA Commissioner must conclude that, based on the totality of scientific evidence available, it is reasonable to relieve that the product may be effective in diagnosing, treating,

or preventing a disease attributable to the agents described above; that the product's potential benefits outweigh its potential risks; and that there is no adequate, approved alternative to the product.

Although an EUA may not be issued until after an emergency has been declared by the Secretary of the DHHS, the Agency strongly encourages an entity with a possible candidate product, particularly one at an advanced stage of development, to contact the FDA Center responsible for the candidate product even before a determination of actual or potential emergency. Such an entity may submit a request for consideration that includes data to demonstrate that, based on the totality of scientific evidence available, it is reasonable to believe that the product may be effective in diagnosing, treating, or preventing the serious or life-threatening disease or condition. We may submit such a request for consideration with respect to our product candidates intended to treat Marburg and Ebola.

Orphan Drug Designation and Exclusivity

Some jurisdictions, including the United States and Europe, may designate drugs for relatively small patient populations as orphan drugs. The FDA may grant orphan drug designation to drugs intended to treat a rare disease or condition that affects fewer than 200,000 individuals in the United States, or more than 200,000 individuals in the United States for which there is no reasonable expectation that the cost of developing and making available in the United States a drug for this type of disease or condition will be recovered from sales in the United States for that drug. In the United States, orphan drug designation must be requested before submitting an application for marketing approval. An orphan drug designation does not shorten the duration of the regulatory review and approval process. The approval of an orphan designation request does not alter the standard regulatory requirements and process for obtaining marketing approval. Safety and efficacy of a compound must be established through adequate and well-controlled studies. If a product which has an orphan drug designation subsequently receives the first FDA approval for the indication for which it has such designation, the product is entitled to orphan drug exclusivity period, which means the FDA may not grant approval to any other application to market a different drug for the same indication for a period of seven years, except in limited circumstances, such as where an alternative product demonstrates clinical superiority to the product with orphan exclusivity. In addition, holders of exclusivity for orphan drugs are expected to assure the availability of sufficient quantities of their orphan drugs to meet the needs of patients. Failure to do so could result in the withdrawal of marketing exclusivity for the drug. An additional six months of exclusivity may be granted to a sponsor of an NDA, if the sponsor conducted a pediatric study or studies of such product. This process is initiated by FDA as a written request for pediatric studies that applies to sponsor's product. If the sponsor conducts qualifying studies and the studies are accepted by the FDA, then an additional six months of pediatric exclusivity will attach to any other regulatory exclusivity or patent protection applicable to any drug product containing the same active moiety as the drug studied and for which the party submitting the studies holds the NDA. Competitors may receive approval of different drugs or biologics for the indications for which the orphan product has exclusivity. We have been granted orphan drug designation for AVI-4658 and AVI-5038 in the U.S. and European Union.

The European Orphan Drug Regulation is considered for drugs intended to diagnose, prevent or treat a life-threatening or very serious condition afflicting five or fewer out of 10,000 people in the EU, including compounds that for serious and chronic conditions would likely not be marketed without incentives due to low market return on the sponsor's development investment. The medicinal product considered should be of significant benefit to those affected by the condition. Benefits of being granted orphan drug status are significant, including eight years of data exclusivity, two years of marketing exclusivity and a potential one year extension of both. The EU Community and Member States may not accept or grant for ten years a new marketing authorization or application for another drug for the same therapeutic indication as the orphan drug, although the ten year period can be reduced to six years if, at the end of the fifth year, available evidence establishes that the product is sufficiently profitable not to justify maintenance of market exclusivity. A supplementary protection certificate may extend the protection six months beyond patent expiration if that is later than the orphan drug exclusivity period. To apply for the supplementary protection, a pediatric investigation plan, or PIP, must be included in the market application. In Europe all drugs now seeking a marketing authorization need to have a PIP agreed with the EMA before it can be approved, even if is a drug being developed specifically for a pediatric indication. If a product is developed solely for use in the pediatric population, then a Pediatric Use Marketing

Authorization, or PUMA, may provide eight years of data exclusivity and ten years of marketing exclusivity. This PUMA applies to our DMD compounds, AVI-4658 and AVI-5038.

Other Regulatory Requirements

In addition to regulation by the FDA and certain state regulatory agencies, we are also subject to a variety of foreign regulations governing clinical trials and the marketing of other products. Outside of the United States, our ability to market a product depends upon receiving a marketing authorization from the appropriate regulatory authorities. The requirements governing the conduct of clinical trials, marketing authorization, pricing and reimbursement vary widely from country to country. In any country, however, we will only be permitted to commercialize our products if the appropriate regulatory authority is satisfied that we have presented adequate evidence of safety, quality and efficacy. Whether or not FDA approval has been obtained, approval of a product by the comparable regulatory authorities of foreign countries must be obtained prior to the commencement of marketing of the product in those countries. The time needed to secure approval may be longer or shorter than that required for FDA approval. The regulatory approval and oversight process in other countries includes all of the risks associated with regulation by the FDA and certain state regulatory agencies as described above.

Pharmaceutical Pricing and Reimbursement

In both U.S. and foreign markets, our ability to commercialize our products successfully, and to attract commercialization partners for our products, depends in significant part on the availability of adequate financial coverage and reimbursement from third party payors, including, in the United States, governmental payors such as the Medicare and Medicaid programs, managed care organizations, and private health insurers. Third party payors are increasingly challenging the prices charged for medicines and examining their cost effectiveness, in addition to their safety and efficacy. We may need to conduct expensive pharmacoeconomic studies in order to demonstrate the cost effectiveness of our products. Even with the availability of such studies, our products may be considered less safe, less effective or less cost-effective than alternative products, and third party payors may not provide coverage and reimbursement for our product candidates, in whole or in part.

Political, economic and regulatory influences are subjecting the healthcare industry in the United States to fundamental changes. There have been, and we expect there will continue to be, legislative and regulatory proposals to change the healthcare system in ways that could significantly affect our business, including the Patient Protection and Affordable Care Act of 2010. We anticipate that the U.S. Congress, state legislatures and the private sector will continue to consider and may adopt healthcare policies intended to curb rising healthcare costs. These cost containment measures include:

- controls on government funded reimbursement for drugs;
- controls on healthcare providers;
- challenges to the pricing of drugs or limits or prohibitions on reimbursement for specific products through other means;
- reform of drug importation laws; and
- expansion of use of managed care systems in which healthcare providers contract to provide comprehensive healthcare for a fixed cost per person.

We are unable to predict what additional legislation, regulations or policies, if any, relating to the healthcare industry or third party coverage and reimbursement may be enacted in the future or what effect such legislation, regulations or policies would have on our business. Any cost containment measures, including those listed above, or other healthcare system reforms that are adopted could have a material adverse effect on our business prospects.

Competition

The pharmaceutical and biotechnology industries are intensely competitive, and any product candidate developed by us would compete with existing drugs and therapies. There are many pharmaceutical companies,

biotechnology companies, public and private universities, government agencies and research organizations that compete with us in developing various approaches to the treatment of rare and infectious diseases. Many of these organizations have substantially greater financial, technical, manufacturing and marketing resources than we have. Several of them have developed or are developing therapies that could be used for treatment of the same diseases that we are targeting. In addition, many of these competitors have significantly greater commercial infrastructures than we have. Our ability to compete successfully will depend largely on:

- our ability to complete clinical development and obtain regulatory approvals for our product candidates;
- the efficacy, safety and reliability of our product candidates;
- the timing and scope of regulatory approvals;
- product acceptance by physicians and other health care providers;
- protection of our proprietary rights and the level of generic competition;
- the speed at which we develop product candidates;
- our ability to supply commercial quantities of a product to the market;
- obtaining reimbursement for product use in approved indications;
- our ability to recruit and retain skilled employees; and
- the availability of substantial capital resources to fund development and commercialization activities.

DMD Program Competition. Currently, no product has been approved for the treatment of DMD. Several other companies including, but not limited to, Prosensa in collaboration with GlaxoSmithKline plc, or GSK, Acceleron Pharma Inc., in collaboration with Shire PLC, and PTC Therapeutics, Inc., in collaboration with Genzyme Corporation, have product candidates in development for the treatment of DMD.

The Prosensa / GSK program has commenced treatment in a Phase III clinical study in ambulant individuals with DMD who have a dystrophin gene mutation amenable to treatment by skipping exon 51. Prosensa's candidate for skipping exon 51, PRO-51, utilizes the same exon skipping mechanism of action as AVI-4658, but the compound uses a different chemistry, 2'O-methyl-phosphorothioate, which has the potential for different performance, safety and tolerability characteristics than AVI-4658. This randomised, placebo controlled study will enroll 180 participants who will be dosed for 48 weeks. The primary efficacy endpoint is a measure of muscle function using the six minute walking distance test. The Prosensa / GSK product candidate may, or may not, prove to be safer and more efficacious than, and it could gain marketing approval before, our lead DMD product candidate, AVI-4658.

The Acceleron Pharma / Shire program focuses on ACE-031. ACE-031 is a recombinant fusion protein therapeutic, which, by inhibiting signaling through a cell surface receptor called activin receptor type IIB, is designed to build muscle and increase strength, for the potential treatment of DMD and other neuromuscular disorders. ACE-031 has the potential to benefit all individuals with DMD irrespective of the underlying genetic mutation and may, or may not, prove to be safer and more efficacious than AVI-4658. ACE-031 is not disease-modifying and it may also be complementary to therapy with AVI-4658.

The PTC Therapeutics / Genzyme program is focused on the development of PTC124, or Ataluren, an orally active small molecule therapeutic that works by enabling the formation of functioning protein in genetic disorders caused by a nonsense mutation. Ataluren has the potential to treat approximately 15% of individuals with DMD that have point mutations which create premature termination codons and cannot be treated by exon skipping. AVI-4658 does not address these types of point mutations and, thus, Ataluren is not in direct competition with AVI-4658.

Hemorrhagic Fever Virus Programs. No specific treatment has been proven effective, and no vaccine currently exists for either Ebola or Marburg. Investigational compounds cannot be tested on humans except in outbreak environments so these agents must be tested extensively and meet strict government regulations. Vaccine development is in the early stages in both the biotech industry (e.g., Tekmira Pharmaceuticals Corp.) and by U.S. government agencies (e.g., the National Institute of Allergy and Infectious Diseases and the Centers for Disease Control and Prevention), although no IND is currently open. We are commencing initial human safety studies during 2011.

Currently, there are no therapeutics or vaccines approved for the treatment or prevention of Dengue fever. Patient care is focused on supportive treatment aimed at limiting the complications of the infection. While the WHO considers the prevention of Dengue to be a priority research area, there has been no successful development of a vaccine. There are several Dengue vaccines in clinical trials, but there are currently no Dengue specific anti-viral therapeutics that have advanced beyond preclinical testing.

Influenza Program. Currently, four therapeutic products for influenza have received market approval from the FDA: (1) oseltamivir (Tamiflu), a Roche Holding and Gilead product; (2) zanamivir (Relenza), a GlaxoSmithKline product; and (3) amantadine and (4) rimantadine, both generic products which are no longer recommended in the United States due to the high levels of resistance to these drugs exhibited by influenza. In addition to these products, Daiichi Sankyo's laninamivir and BioCryst's peramivir were launched in 2010 in Japan. Currently, BioCryst's peramivir is in a Phase III trial supported in part by funds from DHHS. In addition, other companies including, Toyama Chemical (a subsidiary of Fujifilm), have influenza therapeutic compounds in development. Toyama Chemical's favipiravir is in a Phase II clinical trial in the United States and has completed a Phase III trial in Japan.

In addition to therapeutic products, other companies are focusing development efforts on universal influenza vaccines, including BiondVax Pharmaceuticals Ltd., which initiated a Phase IIa trial of its universal influenza vaccine candidate in October 2010. Successful development of a universal influenza vaccine could lead to a reduction in the number of influenza cases and, therefore, the market size.

Platform Technology. We believe that other biotechnology and pharmaceutical companies share a focus on RNA-based drug discovery and development. Competitors with respect to our RNA-based technologies include, but are not limited to, Alnylam Pharmaceuticals, Inc., Isis Pharmaceuticals, Inc., Prosensa, and Santaris Pharma A/S. We are unaware of any other commercial organization that is developing therapeutics based on a PMO chemistry platform.

Research and Development

We devote a substantial portion of our resources to developing new product candidates. During 2010, 2009 and 2008, we expended approximately $36.0 million, $24.4 million and $27.3 million, respectively, on research and development activities.

Employees

As of December 31, 2010, we had 98 employees, 43 of which hold advanced degrees. Of these employees, 66 are engaged directly in research and development activities and 32 are in administration. We anticipate modest growth in staffing in 2011. None of our employees are covered by collective bargaining agreements and we consider relations with our employees to be good.

Item 1A. Risk Factors.

Factors That Could Affect Future Results

Set forth below and elsewhere in this Annual Report on Form 10-K, and in other documents we file with the SEC are descriptions of risks and uncertainties that could cause actual results to differ materially from the results contemplated by the forward-looking statements contained in this Annual Report on Form 10-K. Because of the following factors, as well as other variables affecting our operating results, past financial performance should not be considered a reliable indicator of future performance and investors should not use historical trends to anticipate results or trends in future periods. The risks and uncertainties described below are not the only ones facing us. Other events that we do not currently anticipate or that we currently deem immaterial also affect our results of operations and financial condition.

Risks Relating to Our Business

Our product candidates are at an early stage of development, and it is possible that none of our product candidates will ever become commercial products.

Our product candidates are in relatively early stages of development. These product candidates will require significant further development, financial resources and personnel to obtain regulatory approval and develop into commercially viable products, if at all. Currently, AVI-4658 is in clinical trials, we have open INDs for AVI-6002 in Ebola and AVI-6003 in Marburg, and the rest of our product candidates are in preclinical development. Our IND for AVI-7100 for the treatment of influenza is currently subject to a clinical hold. Providing the evidence required by the FDA to demonstrate that AVI-7100 is safe to use in humans has delayed, and may continue to delay, our clinical development of AVI-7100. Providing the FDA with additional evidence of the safety of the product will require additional time and resources and may not ultimately result in a lifting of the clinical hold, which would materially limit our ability to develop and commercialize this product candidate. We expect that much of our effort and many of our expenditures over the next several years will be devoted to development activities associated with AVI-4658 in Duchenne muscular dystrophy, or DMD, AVI-6002 in Ebola, AVI-6003 in Marburg and AVI-7100 in influenza. With current resources, we may be restricted or delayed in our ability to develop other clinical and preclinical product candidates.

Our ability to commercialize any of our product candidates, including AVI-4658, depends on first receiving required regulatory approvals, and it is possible that we may never receive regulatory approval for any of our product candidates based on an inability to adequately demonstrate the safety and effectiveness of our product candidates, lack of funding, changes in the regulatory landscape or other reasons. Even if a product candidate receives regulatory approval, the resulting product may not gain market acceptance among physicians, patients, healthcare payers and the medical community. Assuming that any of our product candidates receives the required regulatory approvals, commercial success will depend on a number of factors, including:

- establishment and demonstration of clinical efficacy and safety to the medical community;
- cost-effectiveness of the product;
- the availability of adequate reimbursement by third parties, including governmental payors such as the Medicare and Medicaid programs, managed care organizations, and private health insurers;
- the product's potential advantage over alternative treatment methods;
- whether the product can be produced in commercial quantities at acceptable costs;
- marketing and distribution support for the product; and
- any exclusivities applicable to the product.

Although we have been granted orphan status for two of our product candidates, we are not guaranteed to receive orphan exclusivity based on that status and would not enjoy such exclusivity in the event that another

entity could get approval of the same product for the same indication before we receive approval. Furthermore, pediatric exclusivity only attaches if another exclusivity exists for the product, so if no other regulatory exclusivity or patent protection exists for the product once it is approved, we would not receive the benefit of any pediatric exclusivity.

If we are unable to develop and commercialize any of our product candidates, if development is delayed or if sales revenue from any product candidate that receives marketing approval is insufficient, we may never reach sustained profitability.

If we are unable to obtain or maintain required regulatory approvals, we will not be able to commercialize our product candidates, our ability to generate revenue will be materially impaired and our business will not be successful.

The research, testing, manufacturing, labeling, approval, selling, marketing and distribution of drug products are subject to extensive regulation by the FDA in the United States, and other regulatory authorities in other countries, with regulations differing from country to country. Marketing of our product candidates in the United States or foreign countries is not permitted until we obtain marketing approval from the FDA or other foreign regulatory authorities, and we may never receive regulatory approval for the commercial sale of any of our product candidates. Obtaining marketing approval is a lengthy, expensive and uncertain process and approval is never assured. We have never prepared or filed the applications necessary to gain regulatory approvals. Further, the FDA and other foreign regulatory agencies have substantial discretion in the approval process, and determining when or whether regulatory approval will be obtained for any product candidate we develop. In this regard, even if we believe the data collected from clinical trials of our product candidates are promising, such data may not be sufficient to support approval by the FDA or any other foreign regulatory authority. In addition, the FDA or their advisors may disagree with our interpretations of data from preclinical studies and clinical trials. Regulatory agencies may approve a product candidate for fewer conditions than requested or may grant approval subject to the performance of post-approval studies for a product candidate. Similarly, regulatory agencies may not approve the labeling claims that are necessary or desirable for the successful commercialization of our product candidates.

In addition, changes in regulatory requirements and guidance may occur and we may need to amend clinical trial protocols or other approval strategies to reflect these changes. Amendments may require us to resubmit our clinical trial protocols to IRBs for reexamination, which may impact the costs, timing or successful completion of a clinical trial. Changes in our approval strategies may require additional studies that were not originally planned. Due to these and other factors, such as the fact that a product utilizing our RNA-based technologies has never been approved by any regulatory authority, our current product candidates or any of our other future product candidates could take a significantly longer time to gain regulatory approval than we expect or may never gain regulatory approval, which could delay or eliminate any potential product revenue by delaying or terminating the potential commercialization of our product candidates.

If we receive regulatory approval for our product candidates, we will also be subject to ongoing FDA obligations and oversight, including adverse event reporting requirements, marketing restrictions and potential other post-marketing obligations, all of which may result in significant expense and limit our ability to commercialize such products. The FDA's policies may also change and additional government regulations may be enacted that could prevent or delay regulatory approval of our product candidates or further restrict or regulate post-approval activities. We cannot predict the likelihood, nature or extent of adverse government regulation that may arise from future legislation or administrative action, either in the United States, or abroad. If we are not able to maintain regulatory compliance, we may be subject to civil and criminal penalties, we may not be permitted to market our products and our business could suffer. Any delay in, or failure to, receive or maintain regulatory approval for any of our product candidates could harm our business and prevent us from ever generating meaningful revenues or achieving profitability. We will need to obtain regulatory approval from authorities in foreign countries to market our product candidates in those countries. We have not filed for

regulatory approval to market our product candidates in any foreign jurisdiction. Approval by one regulatory authority does not ensure approval by regulatory authorities in other jurisdictions. If we fail to obtain approvals from foreign jurisdictions, the geographic market for our product candidates would be limited.

Our clinical trials may fail to demonstrate acceptable levels of safety and efficacy of our product candidates, which could prevent or significantly delay their regulatory approval.

To obtain the requisite regulatory approvals to market and sell any of our product candidates, we must demonstrate, through extensive preclinical and clinical studies, that the product candidate is safe and effective in humans. Ongoing and future clinical trials of our product candidates may not show sufficient safety or efficacy to obtain regulatory approvals.

Phase I clinical trials generally are not designed to test the efficacy of a product candidate but rather are designed to test safety, to study pharmacokinetics and pharmacodynamics and to understand the product candidate's side effects at various doses and dosing schedules in healthy volunteers. Delays in establishing the appropriate dosage levels can lead to delays in the overall clinical development of a product candidate. As of the date of this Annual Report on Form 10-K, we do not believe that we have identified a consistently effective dose of AVI-4658 for individuals with DMD. We are expeditiously moving to start a U.S.-based clinical trial for AVI-4658 at higher doses in the first half of 2011 to further explore and identify a more consistently effective dose that may be more appropriate for future clinical trials and that can serve as a basis for approval by governmental regulatory authorities; however, we cannot assure you that these efforts will be successful. If a consistently effective dose is found in the U.S. based clinical trial, we will expect to engage in discussions with regulatory authorities about the design and subsequent execution of any further studies which may be required. Regulatory authorities might require more extensive clinical trials than anticipated and conforming to any guidance regulatory authorities provide does not guarantee receipt of marketing approval, even if we believe our clinical trials are successful. Such additional clinical trials might include an open label "extension study" for all participants who have previously received AVI-4658, as well as other participants (e.g., non-ambulatory participants) and any additional placebo-controlled "pivotal" study or studies. If we are not able to establish an optimal dosage in this trial we may need to conduct additional dose-ranging trials before conducting our pivotal trials of the product.

Furthermore, success in preclinical and early clinical trials does not ensure that later larger-scale trials will be successful nor does it predict final results. Acceptable results in early trials may not be reproduced in later trials. For example, pivotal trials for AVI-4658 and AVI-7100 will likely involve a larger number of participants to achieve statistical significance, will be expensive and will take a substantial amount of time to complete. As a result, we may conduct lengthy and expensive clinical trials of our product candidates, only to learn that the product candidate is not an effective treatment or is not superior to existing approved therapies, or has an unacceptable safety profile, which could prevent or significantly delay regulatory approval for such product candidate.

The Animal Rule is a new and seldom-used approach to seeking approval of a new drug and may not be a viable pathway for seeking approval of our infectious disease product candidates.

We plan to develop the therapeutic product candidates to treat Ebola and Marburg viruses in the United States using the Animal Rule mechanism. There is no guarantee that the FDA will agree to this approach to the development of our infectious disease product candidates, and if they do not we will have to take a more traditional approach to the development of these products, which may not be possible given ethical considerations and other limitations associated with these deadly diseases. Pursuant to the Animal Rule, the sponsor of a drug product must demonstrate efficacy in humans through animal models. No animal model is established as predicting human outcomes in the prevention or treatment of any filovirus disease. We have yet to demonstrate the predictive value of our animal studies to the FDA's satisfaction. If we fail to do so, we will have

to demonstrate efficacy of AVI-6002 and AVI-6003 through adequate well-controlled trials in humans in order to obtain regulatory approval of these products in the United States, which will greatly add to the time and expense required to commercialize these products. Furthermore, the Animal Rule mechanism has become available only relatively recently and has been infrequently used. We do not have any experience successfully navigating this approach to drug approval. The Animal Rule approach has yet to be well tested generally and is currently under evaluation by the FDA. Even if the Animal Rule represents a viable approach to seeking approval of these products, it may present challenges for gaining final regulatory approval for these product candidates, including an extended timeline to approval and less predictable study requirements.

We rely on U.S. government contracts to support several important research and development programs and substantially all of our revenue. If the U.S. government fails to fund such programs on a timely basis or at all, or such contracts are terminated, the results of our operations would be materially and adversely affected.

We rely on U.S. government contracts and awards to fund several of our development programs, including those for the Ebola, Marburg and influenza viruses and for substantially all of our current revenue.

The funding of U.S. government programs is subject to Congressional appropriations. Congress generally appropriates funds on a fiscal year basis even though a program may extend over several fiscal years. Consequently, programs are often only partially funded initially and additional funds are committed only as Congress makes further appropriations. If appropriations for one of our programs become unavailable or are reduced or delayed, our contracts may be terminated or adjusted by the government, which could have a negative impact on our future revenue under such contract or subcontract. From time to time, when a formal appropriation bill has not been signed into law before the end of the U.S. government's fiscal year, Congress may pass a continuing resolution that authorizes agencies of the U.S. government to continue to operate, generally at the same funding levels from the prior year, but does not authorize new spending initiatives, during a certain period. During such a period, or until the regular appropriation bills are passed, delays can occur in government procurement due to lack of funding and such delays can affect our operations during the period of delay.

In addition, U.S. government contracts generally also permit the government to terminate the contract, in whole or in part, without prior notice, at the government's convenience or for default based on performance. If one of our contracts is terminated for convenience, we would generally be entitled to payments for our allowable costs and would receive some allowance for profit on the work performed. If one of our contracts is terminated for default, we would generally be entitled to payments for our work that has been completed to that point. A termination arising out of our default could expose us to liability and have a negative impact on our ability to obtain future contracts.

The termination of one or more of these government contracts, whether due to lack of funding, for convenience, or otherwise, or the occurrence of delays or product failures in connection with one or more of these contracts, could negatively impact our financial condition. Furthermore, we can give no assurance that we would be able to procure new U.S. government contracts to offset the revenue lost as a result of termination of any of our existing contracts. Even if our contracts are not terminated and are completed, there is no assurance that we will receive future government contracts.

Our U.S. government contracts may be terminated and we may be liable for penalties under a variety of procurement rules and regulations and changes in government regulations or practices could adversely affect our profitability, cash balances or growth prospects.

We must comply with laws and regulations relating to the formation, administration and performance of U.S. government contracts, which affect how we do business with our customers. Such laws and regulations may potentially impose added costs on our business and our failure to comply with them may lead to penalties and the termination of our U.S. government contracts. Some significant regulations that affect us include:

- the Federal Acquisition Regulation and supplements, which regulate the formation, administration and performance of U.S. government contracts;

- the Truth in Negotiations Act, which requires certification and disclosure of cost and pricing data in connection with contract negotiations; and
- the Cost Accounting Standards, which impose accounting requirements that govern our right to reimbursement under certain cost-based government contracts.

Our contracts with the U.S. government are subject to periodic review and investigation. If such a review or investigation identifies improper or illegal activities, we may be subject to civil or criminal penalties or administrative sanctions, including the termination of contracts, forfeiture of profits, the triggering of price reduction clauses, suspension of payments, fines and suspension or debarment from doing business with U.S. government agencies. We could also suffer harm to our reputation if allegations of impropriety were made against us, which would impair our ability to win awards of contracts in the future or receive renewals of existing contracts.

In addition, U.S. government agencies routinely audit and review their contractors' performance on contracts, cost structure, pricing practices and compliance with applicable laws, regulations and standards. They also review the adequacy of, and a contractor's compliance with, its internal control systems and policies, including the contractor's purchasing, property, estimating, compensation and management information systems. Such audits may result in adjustments to our contract costs, and any costs found to be improperly allocated will not be reimbursed. We have recorded contract revenues for the periods presented in this Annual Report on Form 10-K based upon costs we expect to realize upon final audit; however, we do not know the outcome of any future audits and adjustments and, if future audit adjustments exceed our estimates, our results of operations could be adversely affected. Additionally, we may be required to enter into agreements and subcontracts with third parties, including suppliers, consultants and other third party contractors in order to satisfy our contractual obligations pursuant to our agreements with the U.S. government. Negotiating and entering into such arrangements can be time-consuming and we may not be able to reach agreement with such third parties. Any such agreement also has to be compliant with the terms of our government grants. Any delay or inability to enter into such arrangements or entering into such arrangements in a manner that is non-compliant with the terms of our grants, may result in violations of our contracts with the U.S. government.

Clinical trials for our product candidates are expensive and time consuming, may take longer than we expect or may not be completed at all, and their outcomes are uncertain.

We have completed a Phase Ib/II clinical trial for AVI-4658 in the UK and announced results in October 2010. We expect to commence additional trials of AVI-4658 and other product candidates in the future, including the initiation of a Phase II trial in AVI-4658 in the first half of 2011. Each of our clinical trials requires the investment of substantial planning, expense and time and the timing of the commencement, continuation and completion of these clinical trials may be subject to significant delays relating to various causes, including scheduling conflicts with participating clinicians and clinical institutions, difficulties in identifying and enrolling participants who meet trial eligibility criteria, failure of participants to complete the clinical trial, delay or failure to obtain IRB or regulatory approval to conduct a clinical trial at a prospective site, unexpected adverse events and shortages of available drug supply. Participant enrollment is a function of many factors, including the size of the relevant population, the proximity of participants to clinical sites, the eligibility criteria for the trial, the existence of competing clinical trials and the availability of alternative or new treatments. We depend on medical institutions and clinical research organizations, or CROs, to conduct our clinical trials in compliance with Good Clinical Practice, or GCP, and to the extent they fail to enroll participants for our clinical trials, fail to conduct the study to GCP standards or are delayed for a significant time in the execution of our trials, including achieving full enrollment, we may be affected by increased costs, program delays or both, which may harm our business. In addition, we conduct clinical trials in foreign countries which may subject us to further delays and expenses as a result of increased drug shipment costs, additional regulatory requirements and the engagement of foreign CROs, as well as expose us to risks associated with less experienced clinical investigators who are unknown to the FDA, and different standards of medical care. Foreign currency transactions insofar as changes in the relative value of

the U.S. dollar to the foreign currency where the trial is being conducted may impact our actual costs. In addition, for some programs (e.g., DMD and Ebola and Marburg infections) there are currently no approved drugs to compare against and an agreement about how to measure efficacy has yet to be reached with the FDA and then demonstrated.

Clinical trials must be conducted in accordance with FDA or other applicable foreign government guidelines and are subject to oversight by the FDA, other foreign governmental agencies and IRBs at the medical institutions where the clinical trials are conducted. In addition, clinical trials must be conducted with supplies of our product candidates produced under cGMP and other requirements in foreign countries, and may require large numbers of participants. The FDA or other foreign governmental agencies or we ourselves could delay, suspend or halt our clinical trials of a product candidate for numerous reasons, including:

- deficiencies in the trial design;
- deficiencies in the conduct of the clinical trial, including failure to conduct the clinical trial in accordance with regulatory requirements or clinical protocols;
- deficiencies in the clinical trial operations or trial sites resulting in the imposition of a clinical hold;
- the product candidate may have unforeseen adverse side effects, including fatalities, or a determination may be made that a clinical trial presents unacceptable health risks;
- the time required to determine whether the product candidate is effective may be longer than expected;
- fatalities or other adverse events arising during a clinical trial that may not be related to clinical trial treatments;
- the product candidate may appear to be no more effective than current therapies;
- the quality or stability of the product candidate may fall below acceptable standards;
- our inability to produce or obtain sufficient quantities of the product candidate to complete the trials;
- our inability to reach agreement on acceptable terms with prospective CROs and trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- our inability to obtain IRB approval to conduct a clinical trial at a prospective site;
- our inability to obtain regulatory approval to conduct a clinical trial;
- lack of adequate funding to continue the clinical trial, including the occurrence of unforeseen costs due to enrollment delays, requirements to conduct additional trials and studies and increased expenses associated with the services of our CROs and other third parties;
- our inability to recruit and enroll individuals to participate in clinical trials for reasons including competition from other clinical trial programs for the same or similar indications; or
- our inability to retain participants who have initiated a clinical trial but may be prone to withdraw due to side effects from the therapy, lack of efficacy or personal issues, or who are lost to further follow-up.

In addition, we may experience significant setbacks in advanced clinical trials, even after promising results in earlier trials, such as unexpected adverse events that occur when our product candidates are combined with other therapies and drugs or given to larger populations, which often occur in later-stage clinical trials. In addition, clinical results are frequently susceptible to varying interpretations that may delay, limit or prevent regulatory approvals. Also, patient advocacy groups and parents of trial participants may demand additional clinical trials or continued access to drug even if our interpretation of clinical results received thus far leads us to determine that additional clinical trials or continued access are unwarranted. Any disagreement with patient advocacy groups or parents of trial participants may require management’s time and attention and may result in

legal proceedings being instituted against us, which could be expensive, time-consuming and distracting, and may result in delay of the program. Negative or inconclusive results or adverse medical events, including participant fatalities that may be attributable to our product candidates, during a clinical trial may necessitate it to be redesigned, repeated or terminated. Further, some of our clinical trials may be overseen by an independent data safety monitoring board, or DSMB, and the DSMB may determine to delay or suspend one or more of these trials due to safety or futility findings based on events occurring during a clinical trial.

We have incurred net losses since our inception and we may not achieve or sustain profitability.

We incurred a net loss of $32.2 million for the year ended December 31, 2010 and $25.2 million for the year ended December 31, 2009. As of December 31, 2010, our accumulated deficit was $307.6 million. Our losses have resulted principally from expenses incurred in research and development of our technology and products and from general and administrative expenses that we have incurred while building our business infrastructure. We expect to continue to incur significant operating losses in the future as we continue our research and development efforts and seek to obtain regulatory approval of our products. Our ability to achieve profitability depends on our ability to raise additional capital, partner one or more programs, complete development of our products, obtain regulatory approvals and market our products. It is uncertain when, if ever, we will become profitable.

We will need additional funds to conduct our planned research and development efforts. If we fail to continue to attract significant capital or fail to enter into strategic relationships, we may be unable to continue to develop our product candidates.

We will require additional capital from time to time in the future in order to continue the development of product candidates in our pipeline and to expand our product portfolio. The actual amount of funds that we will need will be determined by many factors, some of which are beyond our control. These factors include the success of our research and development efforts, the status of our pre-clinical and clinical testing, costs relating to securing regulatory approvals and the costs and timing of obtaining new patent rights, regulatory changes and competitive and technological developments in the market. An unforeseen change in these factors, or others, might increase our need for additional capital.

We would expect to seek additional financing from the sale and issuance of equity or debt securities, and we cannot predict that financing will be available when and as we need financing or that, if available, the financing terms will be commercially reasonable. If we are unable to obtain additional financing when and if we require, or on commercially reasonable terms, it would have a material adverse effect on our business and results of operations.

If we are able to consummate such financings, the trading price of our common stock could be adversely affected and/or the terms of such financings may adversely affect the interests of our existing shareholders. To the extent we issue additional equity securities, our existing shareholders could experience substantial dilution in their economic and voting rights. For example, in connection with our December 2007, January 2009 and August 2009 financings, we sold an aggregate of 49.2 million shares of our common stock and issued warrants to purchase an additional 29.7 million shares of our common stock.

Further, we may also enter into relationships with pharmaceutical or biotechnology companies to perform research and development with respect to our RNA-based technologies, research programs or to conduct clinical trials and to market our product candidates. We currently do not have a strategic relationship with a third party to perform research or development using our RNA-based technologies or assist us in funding the continued development and commercialization of any of our programs or drug candidates other than that with the U.S. government. If we are unable to enter into partnerships or strategic relationships with respect to our technologies or any of our programs or drug candidates on favorable terms it may impede our ability to discover, develop and commercialize product candidates.

We currently rely on third-party manufacturers and other third parties for production of our drug products and our dependence on these manufacturers may impair the advancement of our research and development programs and the development of our product candidates.

We do not currently have the internal ability to manufacture the product candidates that we need to conduct our clinical trials and we rely upon a limited number of manufacturers to supply our product candidates. We may also need to rely on manufacturers for the production of our product candidates to support our research and development programs. In addition, we rely on other third parties to perform additional steps in the manufacturing process, including filling and labeling of vials and storage of our product candidates. For the foreseeable future, we expect to continue to rely on contract manufacturers and other third parties to produce, fill vials and store sufficient quantities of our product candidates for use in our research and development programs and clinical trials. For example, for our Ebola and Marburg hemorrhagic fever virus development programs, we have entered into supply agreements with two multinational manufacturing firms for the production of the API for Ebola and Marburg therapeutics. There is a limited number of companies that can produce PMO in the quantities and with the quality and purity that we require for our development efforts. If we are required to seek alternative supply arrangements, the resulting delays and potential inability to find a suitable replacement could materially and adversely impact our business.

Our product candidates require precise high-quality manufacturing. The failure to achieve and maintain high quality standards, including failure to detect or control anticipated or unanticipated manufacturing errors could result in patient injury or death or product recalls. Contract drug manufacturers often encounter difficulties involving production yields, quality control and quality assurance and shortages of qualified personnel. If our contract manufacturers or other third parties fail to deliver our product candidates for our research and development programs and for clinical use on a timely basis, with sufficient quality, and at commercially reasonable prices, and we fail to find replacement manufacturers or to develop our own manufacturing capabilities, we may be required to delay or suspend clinical trials, research and development programs or otherwise discontinue development and production of our product candidates. In addition, we depend on outside vendors for the supply of raw materials used to produce our product candidates. If the third-party suppliers were to cease production or otherwise fail to supply us with quality raw materials and we are unable to contract on acceptable terms for these raw materials with alternative suppliers, our ability to have our product candidates manufactured and to conduct preclinical testing and clinical trials of our product candidates would be adversely affected.

We do not yet have all of the agreements necessary for the supply of our product candidates in quantities sufficient for commercial sale and we may not be able to establish or maintain sufficient commercial manufacturing arrangements on commercially reasonable terms. Securing commercial quantities of our product candidates from contract manufacturers will require us to commit significant capital and resources. We may also be required to enter into long-term manufacturing agreements that contain exclusivity provisions and/or substantial termination penalties. In addition, contract manufacturers have a limited number of facilities in which our product candidates can be produced and any interruption of the operation of those facilities due to events such as equipment malfunction or failure or damage to the facility by natural disasters could result in the cancellation of shipments, loss of product in the manufacturing process or a shortfall in available product candidates.

Our contract manufacturers are required to produce our clinical product candidates under current Good Manufacturing Practice, or cGMP, conditions in order to meet acceptable standards for our clinical trials. If such standards change, the ability of contract manufacturers to produce our product candidates on the schedule we require for our clinical trials may be affected. In addition, contract manufacturers may not perform their obligations under their agreements with us or may discontinue their business before the time required by us to successfully produce and market our product candidates. We and our contract manufacturers are subject to periodic unannounced inspection by the FDA and corresponding state and foreign authorities to ensure strict compliance with cGMP and other applicable government regulations and corresponding foreign standards. We do not have control over a third-party manufacturer’s compliance with these regulations and standards. Any

difficulties or delays in our contractors' manufacturing and supply of product candidates or any failure of our contractors to maintain compliance with the applicable regulations and standards could increase our costs, cause us to lose revenue, make us postpone or cancel clinical trials, prevent or delay regulatory approval by the FDA and corresponding state and foreign authorities, prevent the import and/or export of our product candidates, or cause our products to be recalled or withdrawn.

We may not be able to successfully scale-up manufacturing of our product candidates in sufficient quality and quantity, which would delay or prevent us from developing our product candidates and commercializing resulting approved drug products, if any.

To date, our product candidates have been manufactured in small quantities for preclinical studies and early stage clinical trials. In order to conduct larger or late-stage scale clinical trials for a product candidate and for commercialization of the resulting drug product if that product candidate is approved for sale, we will need to manufacture it in larger quantities. We may not be able to successfully increase the manufacturing capacity for any of our product candidates, whether in collaboration with third-party manufacturers or on our own, in a timely or cost-effective manner or at all. If a contract manufacturer makes improvements in the manufacturing process for our product candidates, we may not own, or may have to share, the intellectual property rights to those improvements. Significant scale-up of manufacturing may require additional validation studies, which are costly and which the FDA must review and approve. In addition, quality issues may arise during those scale-up activities because of the inherent properties of a product candidate itself or of a product candidate in combination with other components added during the manufacturing and packaging process, or during shipping and storage of the finished product or active pharmaceutical ingredients. If we are unable to successfully scale-up manufacture of any of our product candidates in sufficient quality and quantity, the development of that product candidate and regulatory approval or commercial launch for any resulting drug products may be delayed or there may be a shortage in supply, which could significantly harm our business.

We rely on third parties to provide services in connection with our preclinical and clinical development programs. The inadequate performance by or loss of any of these service providers could affect our product candidate development.

Several third parties provide services in connection with our preclinical and clinical development programs, including in vitro and in vivo studies, assay and reagent development, immunohistochemistry, toxicology, pharmacokinetics, clinical assessments, data monitoring and management and statistical analysis and other outsourced activities. If these service providers do not adequately perform the services for which we have contracted or cease to continue operations and we are not able to quickly find a replacement provider or we lose information or items associated with our product candidates, our development programs may be delayed.

Our RNA-based, or antisense, technology has not been incorporated into a commercial product and is still at a relatively early stage of development.

Our RNA-based platforms, utilizing proprietary antisense technology, have not been incorporated into a commercial product and are still at a relatively early stage of development. This antisense technology is used in all of our therapeutic candidates, including AVI-4658. We are conducting toxicology, pharmacology, pharmacokinetics and other preclinical studies and, although we have initiated clinical trials for AVI-4658, additional preclinical studies may be required for AVI-4658 and before other product candidates enter human clinical trials. For example, we noted unexpected toxicology findings in the kidney as part of our series of preclinical studies for AVI-5038, our preclinical PPMO drug candidate for DMD that is based on a different chemistry, derived from the PMO chemistry used in AVI-4658. Based on those findings, we conducted additional preclinical work to help clarify the therapeutic index of AVI-5038, but have not yet alleviated the toxicity problem. In addition, preclinical models to study participant toxicity and activity of compounds are not necessarily predictive of toxicity or efficacy of these compounds in the treatment of human disease and there may be substantially different results in clinical trials from the results obtained in preclinical studies. Any failures or setbacks utilizing our antisense technology, including adverse effects resulting from the use of this technology

in humans, could have a detrimental impact on our internal product candidate pipeline and our ability to maintain and/or enter into new corporate collaborations regarding these technologies, which would negatively affect our business and financial position.

We intend to increase the size of our workforce and if we fail to manage our growth effectively, our growth prospects and operating results could be adversely affected.

Our ability to perform our U.S. government contracts, growth prospects and operating results depend on highly-skilled personnel to conduct research and product development activities and we intend to recruit, hire and retain additional personnel in the near term. Competition for qualified personnel in our industry, particularly those with experience with either rare or infectious diseases that we target, or may target in the future, is intense. In addition, we expect to meet some of our short-term personnel needs by engaging contractors who may be difficult to retain if they are offered permanent positions with other companies. If we are unable to attract, assimilate or retain such personnel or manage our growth effectively, our continued growth, expansion and ability to advance our proprietary programs and perform our U.S. government contracts would be adversely affected.

We rely on highly skilled personnel, and if we are unable to retain or motivate key personnel or hire qualified personnel, our operations may be adversely affected.

Our operations and our ability to execute our business strategy are highly dependent on the efforts of our executive management team. In April 2010, our chief executive officer and president resigned in connection with the settlement with a group of our shareholders. Following his departure, our board of directors appointed J. David Boyle II, our chief financial officer, to serve as interim chief executive officer and president. In December 2010, our board of directors appointed Christopher Garabedian, a member of the board of directors, to serve as the president and chief executive officer beginning in January 2011. In connection with Mr. Garabedian's appointment, Mr. Boyle returned to the chief financial officer position. If the transition in executive leadership is not smooth, the resulting disruption could negatively affect our operations and impede our ability to execute our strategic plan. In addition, although the members of our senior management team have employment agreements with us, these agreements may not provide sufficient incentives for these officers to continue employment with us. The loss of one or more of the members of our senior management team could adversely affect our operations.

Recent changes in our executive leadership and board of directors and any similar changes in the future may serve as a significant distraction for our management.

As previously disclosed on April 20, 2010, we entered into a settlement agreement with a shareholder group that had sought a special meeting of our shareholders to replace certain members of our board of directors. In connection with such settlement agreement, among other things, we experienced the change in our executive leadership described above and our board of directors underwent significant change. Such changes, or any other future changes in the executive leadership of the company, may disrupt our operations as our company adjusts to the reallocation of responsibilities and assimilates new leadership and, potentially, differing perspectives on our strategic direction. The dispute with the shareholder group required the expenditure of significant time and resources by us and if we are involved in a similar dispute in the future, we may incur significant additional expenditures and it may be a significant distraction for our management and employees.

Asserting, defending and maintaining our intellectual property rights could be challenging and costly, and our failure to do so could harm our ability to compete and impair the outcome of our operations. The pharmaceutical, biotechnology and academic environments are highly competitive and competing intellectual property could limit our ability to protect our products.

Our success will depend in significant part on our existing 189 patents (domestic and foreign) issued or licensed to us and 181 (domestic and foreign) pending patent applications and our ability to obtain additional patents and licenses in the future. We license patents from other parties for certain complementary technologies.

We cannot be certain that pending patent applications will result in patents being issued in the United States or foreign countries. In addition, the patents that have been or will be issued may not afford meaningful protection for our technology and products. Competitors may develop products similar to ours that do not conflict with our patents. Pharmaceutical research and development is highly competitive; others may file patents first that cover our products or technology. We are aware of a European patent to which Prosensa has rights that may provide the basis for Prosensa or other parties that have rights to the patent to assert that our drug AVI-4658 infringes on such patent. We are currently opposing this patent in the Opposition Division of the European Patent Office and believe that we may be able to invalidate some or all of the claims covered by this patent and non-U.S. foreign equivalents. Final resolution of this opposition proceeding may take a number of years.

Our success will also depend partly on our ability to operate without infringing upon the proprietary rights of others as well as our ability to prevent others from infringing on our proprietary rights. We may be required at times to take legal action to protect our proprietary rights and, despite our best efforts, we may be sued for infringing on the patent rights of others. We have not received any communications or other indications from owners of related patents or others that such persons believe our products or technology may infringe on their patents. Patent litigation is costly and, even if we prevail, the cost of such litigation could adversely affect our financial condition. If we do not prevail, in addition to any damages we might have to pay, we could be required to stop the infringing activity or obtain a license. If any patent related to our products or technology issues, and if our activities are determined to be covered by such a patent, we cannot assure you that we will be able to obtain or maintain a license, which could have a material adverse effect on our business, financial condition, operating results and ability to obtain and/or maintain our strategic business relationships.

Others may challenge our patents and, as a result, our patents could be narrowed or invalidated. The patent position of pharmaceutical and biotechnology firms, as well as academia, is generally highly uncertain, involves complex legal and factual questions, and has recently been the subject of much litigation. No consistent policy has emerged from the U.S. Patent and Trademark Office, or USPTO, or the courts regarding the breadth of claims allowed or the degree of protection afforded under biotechnology patents. In addition, there is a substantial backlog of pharmaceutical and biotechnology patent applications at the USPTO and the approval or rejection of patents may take several years.

To help protect our proprietary rights in unpatented trade secrets, we require our employees, consultants and advisors to execute confidentiality agreements and invention assignment agreements. However, such agreements may not provide us with adequate protection if confidential information is used or disclosed improperly. In addition, in some situations these agreements may conflict with, or be subject to, the rights of third parties with whom our employees, consultants or advisors have prior employment or consulting relationships. Further, others may independently develop substantially equivalent proprietary information and techniques, or otherwise gain access to our trade secrets.

Our research collaborators may publish data and information to which we have rights. If we cannot maintain the confidentiality of our technology and other confidential information in connection with our collaborations, then our ability to receive patent protection or protect our proprietary information may be impaired.

We face intense competition and rapid technological change, which may result in others discovering, developing or commercializing competing products before or more successfully than we do.

The biotechnology and pharmaceutical industries are highly competitive and subject to significant and rapid technological change. We are aware of many pharmaceutical and biotechnology companies that are actively engaged in research and development in areas related to antisense technology and other RNA technologies or that are developing alternative approaches to or therapeutics for the disease indications on which we are focused. Some of these competitors are developing or testing product candidates that now, or may in the future, compete directly with our product candidates. For example, we believe that companies including Alnylam Pharmaceuticals, Isis Pharmaceuticals, and Santaris share a focus on RNA-based drug discovery and development. Competitors with respect to our exon skipping DMD program, or AVI-4658, include Prosensa and GlaxoSmithKline, or GSK, and other companies such as Acceleron have also been working on DMD programs.

A European based clinical trial evaluating the systemic administration of the Prosensa/GSK lead DMD drug candidate started several months before the start of our similar clinical trial, although the full biological results from this trial have yet to be made publically available. The Prosensa/GSK drug candidate may, or may not, prove to be safer or more efficacious than our product candidate and it could gain marketing approval before our product candidate. This might affect our ability to successfully complete a clinical development program or market AVI-4658 once approved. This competition may also extend to other exon skipping drugs for DMD limiting our ability to gain market share. We also face significant competition with respect to our influenza program from many different companies, including large biopharmaceutical companies that have both marketed products like Tamiflu ® and other products in various stages of development.

Other potential competitors include large, fully integrated pharmaceutical companies and more established biotechnology companies that have significantly greater resources and expertise in research and development, manufacturing, testing, obtaining regulatory approvals and marketing. Also, academic institutions, government agencies and other public and private research organizations conduct research, seek patent protection and establish collaborative arrangements for research, development, manufacturing and marketing. It is possible that these competitors will succeed in developing technologies that are more effective than our product candidates or that would render our technology obsolete or noncompetitive. Our competitors may, among other things:

- develop safer or more effective products;
- implement more effective approaches to sales and marketing;
- develop less costly products;
- obtain quicker regulatory approval;
- have access to more manufacturing capacity;
- develop products that are more convenient and easier to administer;
- form more advantageous strategic alliances; or
- establish superior proprietary positions.

We may be subject to clinical trial claims and our insurance may not be adequate to cover damages.

We currently have no products that have been approved for commercial sale; however, the current and future use of our product candidates by us and our corporate collaborators in clinical trials, and the sale of any approved products in the future, may expose us to liability claims. These claims might be made directly by consumers or healthcare providers or indirectly by pharmaceutical companies, our corporate collaborators or others selling such products. We may experience financial losses in the future due to product liability claims. We have obtained limited general commercial liability insurance coverage for our clinical trials. We intend to expand our insurance coverage to include the sale of commercial products if we obtain marketing approval for any of our product candidates. However, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against all losses. If a successful product liability claim or series of claims is brought against us for uninsured liabilities or in excess of insured liabilities, our assets may not be sufficient to cover such claims and our business operations could be impaired.

Our operations involve the use of hazardous materials, and we must comply with environmental laws, which can be expensive, and may affect our business and operating results.

Our research and development activities involve the use of hazardous materials, including organic and inorganic solvents and reagents. Accordingly, we are subject to federal, state, and local laws and regulations governing the use, storage, handling, manufacturing, exposure to, and disposal of these hazardous materials. In addition, we are subject to environmental, health and workplace safety laws and regulations, including those governing laboratory procedures, exposure to blood-borne pathogens, and the handling of biohazardous materials. Although we believe that our activities conform in all material respects with such environmental laws, there can be no assurance that violations of these laws will not occur in the future as a result of human error,

accident, equipment failure, or other causes. Liability under environmental, health and safety laws can be joint and several and without regard to fault or negligence. The failure to comply with past, present, or future laws could result in the imposition of substantial fines and penalties, remediation costs, property damage and personal injury claims, loss of permits or a cessation of operations, and any of these events could harm our business and financial conditions. We expect that our operations will be affected by other new environmental and health and workplace safety laws on an ongoing basis, and although we cannot predict the ultimate impact of any such new laws, they may impose greater compliance costs or result in increased risks or penalties, which could harm our business.

Risks Related to Our Common Stock

Provisions of our articles of incorporation, bylaws and Oregon corporate law might deter acquisition bids for us that might be considered favorable and prevent or frustrate any attempt to replace or remove the then current management and board of directors.

Certain provisions of our articles of incorporation and bylaws may make it more difficult for a third party to acquire control of us or effect a change in our board of directors and management. These provisions include:

- classification of our board of directors into two classes, with one class elected each year;
- prohibit cumulative voting of shares in the election of directors;
- prohibit shareholder actions by less than unanimous written consent;
- provide that the board of directors is expressly authorized to make, alter or repeal our bylaws;
- establish advance notice requirements for nominations for election to our board or for proposing matters that can be acted upon by shareholders at shareholder meetings; and
- the ability of our board of directors to authorize the issuance of undesignated preferred stock, the terms and rights of which may be established and shares of which may be issued without shareholder approval, including rights superior to the rights of the holders of common stock.

In addition, the Oregon Control Share Act and Business Combination Act may limit parties that acquire a significant amount of voting shares from exercising control over us for specific periods of time. These provisions could discourage, delay or prevent a transaction involving a change of control, even if doing so would benefit our shareholders. These provisions also could discourage proxy contests and make it more difficult for shareholders to elect directors of their choosing or cause us to take other corporate actions, such as replacing or removing management or members of our board of directors.

Our stock price is volatile and may fluctuate due to factors beyond our control.

The market prices for, and trading volumes of, securities of biotechnology companies, including our securities, have been historically volatile. The market has from time to time experienced significant price and volume fluctuations unrelated to the operating performance of particular companies. The market price of our common stock may fluctuate significantly due to a variety of factors, including:

- positive or negative results of testing and clinical trials by ourselves, strategic partners, or competitors;
- delays in entering into strategic relationships with respect to development and/or commercialization of our product candidates or entry into strategic relationships on terms that are not deemed to be favorable to our company;
- technological innovations or commercial product introductions by ourselves or competitors;
- changes in government regulations;
- developments concerning proprietary rights, including patents and litigation matters;
- public concern relating to the commercial value or safety of any of our products;
- financing or other corporate transactions;

- comments by securities analysts;
- the perception that shares of our common stock may be delisted from The NASDAQ Stock Market; or
- general market conditions in our industry or in the economy as a whole.

In addition, the stock market has recently experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of individual companies. Broad market and industry factors may seriously affect the market price of companies' stock, including ours, regardless of actual operating performance. In addition, in the past, following periods of volatility in the overall market and the market price of a particular company's securities, securities class action litigation has often been instigated against these companies. Such litigation, if instigated against us, could result in substantial costs and a diversion of our management's attention and resources.

Our common stock is listed on The NASDAQ Global Market and we may not be able to maintain that listing, which may make it more difficult for investors to sell shares of our common stock.

Our common stock is listed on The NASDAQ Global Market. The NASDAQ Global Market has several quantitative and qualitative requirements with which companies must comply in order to maintain this listing, including a $1.00 minimum bid price per share and $50 million minimum value of listed securities. In the past our stock price has traded near, and at times below, the $1.00 minimum bid price required for continued listing on NASDAQ. For example, the trading price for our common stock was $0.99 as recently as May 11, 2009. Although NASDAQ in the past has provided relief from the $1.00 minimum bid price requirement as a result of the weakness in the stock market, it may not do so in the future. If we fail to maintain compliance with NASDAQ's listing standards, and our common stock becomes ineligible for listing on The NASDAQ Stock Market the liquidity and price of our common stock would be adversely affected.

If our common stock was delisted, the price of our stock and the ability of our shareholders to trade in our stock would be adversely affected. In addition, we would be subject to a number of restrictions regarding the registration of our stock under U.S. federal securities laws, and we would not be able to allow our employees to exercise their outstanding options, which could adversely affect our business and results of operations. If we are delisted in the future from The NASDAQ Global Market, there may be other negative implications, including the potential loss of confidence by actual or potential collaboration partners, suppliers and employees and the loss of institutional investor interest in our company.

We expect our quarterly operating results to fluctuate in future periods, which may cause our stock price to fluctuate or decline.

Our quarterly operating results have fluctuated in the past, and we believe they will continue to do so in the future. Some of these fluctuations may be more pronounced than they were in the past as a result of the issuance of warrants to purchase 29.7 million shares of our common stock by us in December 2007 and January and August 2009. Each of these warrants is classified as a derivative liability. Accordingly, the fair value of the warrants is recorded on our consolidated balance sheet as a liability, and such fair value is adjusted at each financial reporting date with the adjustment to fair value reflected in our consolidated statement of operations. The fair value of the warrants is determined using the Black-Scholes option valuation model. Fluctuations in the assumptions and factors used in the Black-Scholes model can result in adjustments to the fair value of the warrants reflected on our balance sheet and, therefore, our statement of operations. Due to the classification of such warrants and other factors, quarterly results of operations are difficult to forecast, and period-to-period comparisons of our operating results may not be predictive of future performance. In one or more future quarters, our results of operations may fall below the expectations of securities analysts and investors. In that event, the market price of our common stock could decline. In addition, the market price of our common stock may fluctuate or decline regardless of our operating performance.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

A description of the facilities we own and/or occupy is included in the following table. We believe that our current facilities are suitable and have sufficient capacity to meet the projected needs of our business for the next 12 months or that additional space is readily available. Except as noted below, all of our properties are currently being used in the operation of our business.

Location of Property	Square Footage	Lease Expiration Date	Purpose	Other Information
3450 Monte Villa Parkway, Suite 101, Bothell, WA 98021	19,108	November 2014	Laboratory and office space	Corporate headquarters
19909 120th Avenue NE, Suite 101, Bothell, WA 98011	8,398	December 2012	Office space	Administrative office
4575 SW Research Way, Suite 200, Corvallis, OR 97333	53,000	December 2020	Laboratory and office space	Primary laboratory
1749 SW Airport Avenue, Corvallis, OR 97330	34,000	N/A – facility is owned	Currently unoccupied; acquired with intention of providing future expansion space for the manufacture of potential products and components	Property listed for sale in September 2009

Item 3. Legal Proceedings.

As of the date hereof, we are not a party to any material legal proceedings with respect to us, our subsidiaries, or any of our material properties. In the normal course of business, we may from time to time be named as a party to various legal claims, actions and complaints, including matters involving employment, intellectual property, effects from the use of therapeutics utilizing our technology, or others. It is impossible to predict with certainty whether any resulting liability would have a material adverse effect on our financial position, results of operations or cash flows.

Item 4. (Removed and Reserved).

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Market Information

Our Common Stock is quoted on The NASDAQ Global Market under the symbol "AVII." The following table sets forth the high and low sales prices as reported by The NASDAQ Global Market for each quarterly period in the two most recent years:

	High	Low
Year Ended December 31, 2009		
First Quarter	$1.55	$ 0.52
Second Quarter	1.98	0.66
Third Quarter	2.73	1.20
Fourth Quarter	2.08	1.33
Year Ended December 31, 2010		
First Quarter	$ 1.80	$1.16
Second Quarter	1.88	1.11
Third Quarter	2.24	1.44
Fourth Quarter	2.20	1.72

Holders

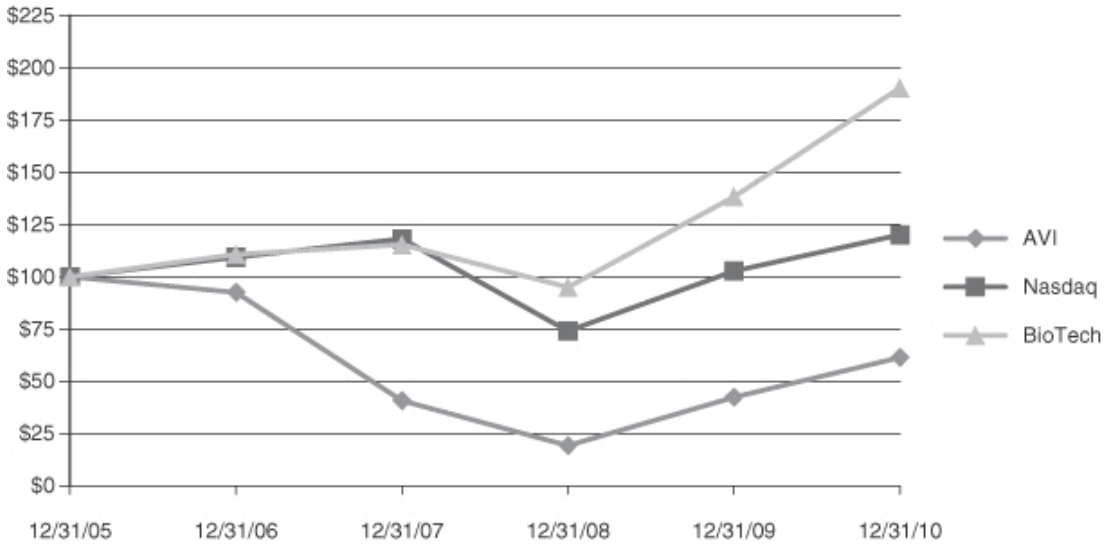
As of February 28, 2011, we had 592 shareholders of record of our common stock.

Dividends

We have neither declared nor paid cash dividends on our common stock in 2010 or 2009. We currently expect to retain future earnings, if any, to finance the operation and expansion of our business, and we do not anticipate paying any cash dividends in the foreseeable future. Any future determination related to our dividend policy will be made at the discretion of our board of directors.

Performance Graph

The following graph compares the performance of our Common Stock for the periods indicated with the performance of the NASDAQ Composite Index and the Amex Biotech Index. This graph assumes an investment of $100 on December 31, 2005 in each of the our common stock, the NASDAQ Composite Index and the Amex Biotech Index, and assumes reinvestment of dividends, if any. The stock price performance shown on the graph below is not necessarily indicative of future stock price performance.



	AVII	NASDAQ Composite Index	Amex Biotech Index
End of Fiscal 2005	$100.00	$ 100.00	$ 100.00
End of Fiscal 2006	92.71	109.52	110.77
End of Fiscal 2007	40.87	118.33	115.51
End of Fiscal 2008	19.13	74.01	95.04
End of Fiscal 2009	42.32	102.89	138.36
End of Fiscal 2010	61.45	120.29	190.57

Recent Sales of Unregistered Securities.

None.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers.

None.

Item 6. Selected Financial Data.

The following selected financial data is derived from our audited financial statements and should be read in conjunction with, and is qualified in its entirety by, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operation," and Item 8, "Financial Statements and Supplementary Data."

	Year Ended December 31,				
	2010	2009	2008	2007	2006
			(in thousands)		
Operations data:					
Revenues	$ 29,420	$ 17,585	$ 21,258	$ 10,985	$ 115
Research and development	35,972	24,396	27,331	31,058	25,346
General and administrative	14,382	8,696	11,469	13,035	7,753
Acquired in-process research and development	—	—	9,916	—	—
Operating loss	(20,934)	(15,507)	(27,458)	(33,108)	(32,984)
Interest (expense) income, and other net	259	(454)	344	984	1,910
Decrease (increase) on warrant valuation	(11,502)	(9,198)	3,161	4,956	2,386
Net loss	(32,177)	(25,159)	(23,953)	(27,168)	(28,688)
Net loss per share—basic and diluted	$ (0.29)	$ (0.27)	$ (0.34)	$ (0.50)	$ (0.54)
Balance sheet data:					
Cash and investments	$ 33,767	$ 48,446	$ 11,474	$ 25,074	$ 33,152
Working capital	(8,019)	17,803	9,756	18,959	25,596
Total assets	45,976	60,027	25,536	38,638	40,863
Shareholders' equity (deficit)	(2,817)	23,630	15,732	26,382	32,519

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operation.

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our financial statements and related notes included elsewhere in this Annual Report on Form 10-K. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those discussed below. Factors that could cause or contribute to such differences include, but are not limited to, those identified below, and those discussed in the section titled "Risk Factors" included elsewhere in this Annual Report on Form 10-K. Throughout this discussion, unless the context specifies or implies otherwise, the terms "AVI", "we", "us" and "our" refer to AVI BioPharma, Inc. and its subsidiaries.

Overview

We are a biopharmaceutical company focused on the discovery and development of unique RNA-based therapeutics for the treatment of both rare and infectious diseases. Applying our proprietary, highly-differentiated and innovative platform technologies, we are able to target a broad range of diseases and disorders through distinct RNA-based mechanisms of action. We are primarily focused on rapidly advancing the development of our Duchenne muscular dystrophy drug candidates. We are also focused on developing therapeutics for the treatment of infectious diseases and leveraging our RNA-based technology platforms to identify additional product candidates and explore various strategic opportunities.

Our lead program focuses on the development of disease modifying therapeutic candidates for Duchenne muscular dystrophy, or DMD, a rare genetic muscle wasting disease caused by the absence of dystrophin, a protein necessary for muscle function. AVI-4658 is our lead therapeutic candidate for DMD and is intended to target a substantial group of individuals with DMD. We are also leveraging the capabilities of our RNA-based technology platforms to develop therapeutics for the treatment of infectious diseases. The U.S. Department of Defense, or DoD, has provided significant financial support for the development of therapeutics for Ebola, Marburg, Dengue and influenza, as described in greater detail below.

The basis for our novel RNA-based therapeutics is our phosphorodiamidate-linked morpholino oligomer, or PMO, chemistries. By applying our technologies, we are able to target a broad range of diseases and disorders through distinct RNA-based mechanisms of action. Unlike other RNA-based therapeutics, our technologies can be used to selectively up-regulate or down-regulate the production of a target protein, or direct the expression of novel proteins involved in human diseases and disorders. We believe that these broad capabilities represent highly competitive RNA-based technology platforms and a strong intellectual property position, which we are leveraging to identify additional product candidates and explore various strategic opportunities. As of February 28, 2011, we owned or held exclusive or partially exclusive licenses to approximately 189 U.S. and corresponding foreign patents and 181 U.S. and corresponding foreign patent applications.

On June 4, 2010, we were awarded a new contract with the U.S. Defense Threat Reduction Agency, or DTRA, an agency of the U.S. Department of Defense, or DoD, to advance the development of AVI-7100 as a medical countermeasure against the pandemic H1N1 influenza virus in cooperation with the Transformational Medical Technologies program, or TMT, of the DoD. The contract provides for funding of up to $18.0 million to advance the development of AVI-7100, including studies enabling an Investigational New Drug, or IND, application with the U.S. Food and Drug Administration, or FDA, the study of an intranasal delivery formulation and the funding of the entry into a Phase I clinical program to obtain human safety data to support potential use under an Emergency Use Authorization.

On July 14, 2010, we were awarded a new contract with the DoD Chemical and Biological Defense Program through the U.S. Army Space and Missile Defense Command for the advanced development of our hemorrhagic fever virus therapeutic candidates, AVI-6002 and AVI-6003, for Ebola and Marburg viruses, respectively. The contract is funded as part of the TMT program, which was established to develop innovative platform-based solutions countering biological threats. The contract is structured into four segments with potential funding of up to approximately $291 million. Activity under the first segment began in July 2010 and

provides us funding of up to approximately $80 million. Activities under the first segment include Phase I studies in healthy volunteers as well as preclinical studies, and are scheduled over an 18-month period. After completion of the first segment, and each successive segment, TMT has the option to proceed to the next segment for either or both AVI-6002 and AVI-6003. If TMT exercises its options for all four segments, contract activities would include all clinical and licensure activities necessary to obtain FDA regulatory approval of each therapeutic candidate and would provide for a total funding award to us of up to approximately $291 million. Under an earlier contract, we completed development activities that culminated in the opening of IND applications for both AVI-6002 and AVI-6003.

In October 2010, we were awarded five cash grants totaling approximately $1.2 million under the U.S. government's Qualifying Therapeutic Discovery Project, or QTDP, program. We were awarded grants for all five of the project applications submitted for our DMD program and infectious disease programs. The QTDP was part of the March 2010 Patient Protection and Affordable Care Act and provides a tax credit or grant equal to 50 percent of eligible costs and expenses for tax years 2009 and 2010. Under the program, a total of $1 billion in grant or tax credits was made available to companies with 250 or fewer employees. The grant we received for each application was approximately $244,000.

On April 20, 2010, our chief executive officer and president, Leslie Hudson, Ph.D., tendered his resignation at the request of our board of directors. Pursuant to his separation agreement, Dr. Hudson will receive total cash severance payments of $1,412,170 (comprised of two times the sum of (1) his annual base salary in effect as of the separation date ($494,000), (2) the average of his last two annual bonuses ($188,669), and (3) the annual cost of Pfizer retiree healthcare coverage for him and his spouse ($23,000). The cash severance payments are paid to Dr. Hudson in 24 equal monthly installments, less required deductions and withholdings following the effective date of the separation agreement. In addition, as of the effective date of the separation agreement, unvested options to purchase 1,166,833 shares of our common stock and 116,500 shares of restricted stock previously granted to Dr. Hudson became fully vested and exercisable, which resulted in a charge to stock compensation expense of $1,181,000 in the second quarter of 2010.

From our inception in 1980, we have devoted our resources primarily to fund our research and development efforts. As the result of new Influenza, Ebola and Marburg U.S. government research contracts, we expect future revenues and research and development cost to increase. We have been unprofitable since inception and, other than limited interest, license fees, grants and research contracts, we have had no material revenue from the sale of products or other sources, other than from government grants and research contracts, and we do not expect material revenue for the foreseeable future. We expect to continue to incur losses for the foreseeable future as we continue our research and development efforts and seek to enter additional collaborative efforts. As of December 31, 2010, our accumulated deficit was $307.6 million.

In March 2008, we acquired all of the stock of Ercole Biotechnology, Inc. ("Ercole") in exchange for 5,811,721 shares of our common stock, which was valued at approximately $8.4 million, and the assumption of approximately $1.8 million in liabilities of Ercole. We also issued warrants to purchase our common stock (also classified as equity), which were valued at $437,000, in exchange for certain outstanding warrants issued by Ercole. From 2006 to the time of the acquisition, we and Ercole had collaborated with respect to the development drug candidates, including AVI-4658.

U.S. Government Contracts

In the periods presented, substantially all of the revenue generated by our company was derived from research contracts with the U.S. government. As of December 31, 2010, we had contracts with the U.S. government pursuant to which we are entitled to receive up to an aggregate of $157.1 million for development of our product candidates, of which $76.1 million had been billed or recognized as revenue and $81.0 million of which relates to development that has not yet been completed and has not been billed or recognized as revenue. The following is a description of such contracts.

January 2006 Agreement (Ebola and Marburg Host Factors, Dengue, Anthrax and Ricin)

In January 2006, the final version of the 2006 defense appropriations act was enacted, which act included an allocation of $11.0 million to fund our ongoing defense-related programs under four different contracts, all of which were executed in 2007, and the last of which expired in October 2010. Net of government administrative costs, it was anticipated that we would receive up to $9.8 million under this allocation. As of December 31, 2010, we have recognized revenue of $9.7 million with respect to these contracts and do not expect to receive any additional funds under these contracts. Our technology is expected to be used to continue developing RNA-based drugs against Ebola and Marburg viruses.

November 2006 Agreement (Ebola, Marburg and Junín Viruses)

In November 2006, we entered into a two-year research contract with the DTRA pursuant to which we were entitled to $28.0 million to fund development of our antisense therapeutic candidates Ebola, Marburg and Junín hemorrhagic viruses. In May 2009, this contract was amended to extend the term of the contract until November 2009 and to increase funding by $5.9 million to an aggregate of $33.9 million. In September 2009, the contract was amended again to extend the term of the contract to February 2011 and to increase funding by an additional $11.5 million to an aggregate of $45.4 million. In November 2010, we and DTRA agreed that the key activities under this contract had been completed and that further activities under this contract would cease and this contract would be deemed concluded. As of December 31, 2010, we had recognized revenue of $38.4 million with respect to this contract and do not expect further significant revenue.

May 2009 Agreement (H1N1/Influenza)

In May 2009, we entered into a contract with the DTRA to develop swine flu drugs. Under this contract, DTRA will pay up to $4.1 million to our company for the work involving the application of our proprietary PMO and PMOplus™ antisense chemistry and we plan to conduct preclinical development of at least one drug candidate and demonstrate it is effective by testing it on animals. In March 2010, the contract was amended to include testing against additional influenza strains including H5N1 (avian flu), Tamiflu® resistant H1N1 (swine flu) and H3N2 (seasonal flu) and funding increased by $4.0 million to an aggregate of $8.1 million. As of December 31, 2010, we have recognized revenue of $6.9 million with respect to this contract and do not expect to receive additional significant revenue under these contracts in 2011.

June 2010 Agreement (H1N1/Influenza)

On June 4, 2010, we entered into a contract with the DTRA to advance the development of AVI-7100, which was previously designated AVI-7367 and which has been renumbered by us, as a medical countermeasure against the pandemic H1N1 influenza virus in cooperation with the TMT. The contract provides for funding of up to $18.0 million to advance the development of AVI-7100, including studies enabling an IND application with the FDA, the study of an intranasal delivery formulation, and the funding of the entry into a Phase I clinical trial to obtain human safety data to support potential use under an Emergency Use Authorization. As of December 31, 2010, we have recognized revenue of $8.8 million with respect to this contract and expect to receive the remaining funding under this contract in 2011.

July 2010 Agreement (Ebola and Marburg)

On July 14, 2010, we were awarded a new contract with the DoD Chemical and Biological Defense Program through the U.S. Army Space and Missile Defense Command for the advanced development of the our hemorrhagic fever virus therapeutic candidates, AVI-6002 and AVI-6003, for Ebola and Marburg viruses, respectively. The contract is funded as part of the TMT program, which was established to develop innovative platform-based solutions countering biological threats. The contract is structured into four segments for each therapeutic candidate with potential funding of up to approximately $291 million. Activity under the first segment began in July 2010 and provides for funding to us of up to approximately $80 million. Activities under the first segment include Phase I studies in healthy volunteers as well as preclinical studies, and are scheduled over an 18-month period.

After completion of the first segment, and each successive segment, TMT has the option to proceed to the next segment for either or both AVI-6002 and AVI-6003. If TMT exercises its options for all four segments, contract activities would include all clinical and licensure activities necessary to obtain FDA regulatory approval of each therapeutic candidate and would provide for a total funding award to us of up to approximately $291 million over a period of approximately six years. Under an earlier contract, we completed development activities that culminated in the opening of IND applications for both AVI-6002 and AVI-6003. As of December 31, 2010, we have recognized revenue of $9.8 million with respect to the July 2010 Agreement.

The following table sets forth the impact on revenue of each of the contracts with the U.S. government and other revenue on our results of operations for the years ended December 31, 2010, 2009 and 2008.

	Year Ended December 31,		
	2010	2009	2008
		(in thousands)	
January 2006 Agreements (*Ebola and Marburg host factor, Dengue, Anthrax and Ricin*)	$ 519	$ 2,288	$ 4,251
November 2006 Agreement (*Ebola, Marburg and Junín Viruses*)	3,204	10,421	16,760
May 2009 Agreement (*H1N1*)	5,171	1,716	—
June 2010 Agreement (*H1N1*)	8,809	—	—
July 2010 Agreement (*Ebola and Marburg*)	9,822	—	—
Grants	1,622	725	53
Other Agreements	273	2,435	194
Total	$29,420	$17,585	$21,258

Key Financial Metrics

Revenue

Government Research Contract Revenue. Substantially all of our revenue was generated from U.S. government research contracts. See "Note 7—U.S. Government Contracts" of the financial statements included elsewhere in this Annual Report on Form 10-K. We recognize revenue from U.S. government research contracts during the period in which the related expenses are incurred and present such revenues and related expenses gross in the consolidated financial statements.

License Arrangements. License arrangements may consist of non-refundable upfront license fees, data transfer fees, research reimbursement payments, exclusive licensed rights to patented or patent pending compounds, technology access fees, various performance or sales milestones and future product royalty payments. Some of these arrangements are multiple element arrangements.

We defer recognition of non-refundable upfront fees if we have continuing performance obligations without which the technology, right, product or service conveyed in conjunction with the non-refundable fee has no utility to the licensee that is separate and independent of our performance under the other elements of the arrangement. In addition, if we have continuing involvement through research and development services that are required because our know-how and expertise related to the technology is proprietary to us, or can only be performed by us, then such up-front fees are deferred and recognized over the period of continuing involvement. As of December 31, 2010, we had deferred revenue of $3.3 million, which represents up-front fees received from third parties pursuant to certain contractual arrangements and will be recognized as performance obligations are satisfied.

As the result of recent new government research contracts for H1N1/Influenza, Ebola and Marburg, we expect future revenues to increase in the near term.

Expenses

Research and Development. Research and development expense consists of costs associated with research activities as well as costs associated with our product development efforts, conducting preclinical studies, and clinical trial and manufacturing costs.

Direct research and development expenses associated with our programs include clinical trial site costs, clinical manufacturing costs, costs incurred for consultants and other outside services, such as data management and statistical analysis support, and materials and supplies used in support of the clinical programs. Indirect costs of our clinical program include salaries, stock based compensation, and an allocation of our facility costs. As the result of recent new government research contracts for H1N1 Influenza, Ebola and Marburg, we expect future research and development costs to increase.

The amount and timing of future research and development expense will depend on our ability to obtain U.S. government awards to fund the advanced development of our antiviral therapeutic candidates. Without such funding, we would likely drastically reduce our spending in these areas. Future research and development expenses may also increase if our internal projects, such as DMD, enter later stage clinical development. Our research and development programs are at an early stage and may not result in any approved products. Product candidates that appear promising at early stages of development may not reach the market for a variety of reasons. Similarly, any of our product candidates may be found to be ineffective during clinical trials, may take longer to complete clinical trials than we have anticipated, may fail to receive necessary regulatory approvals, and may prove impracticable to manufacture in commercial quantities at reasonable cost and with acceptable quality.

As a result of these uncertainties and the other risks inherent in the drug development process, we cannot determine the duration and completion costs of current or future clinical stages of any of our product candidates. Similarly, we cannot determine when, if, or to what extent we may generate revenue from the commercialization and sale of any product candidate. The timeframe for development of any product candidate, associated development costs, and the probability of regulatory and commercial success vary widely.

General and Administrative. General and administrative expense consists principally of salaries, benefits, stock-based compensation expense, and related costs for personnel in our executive, finance, information technology, business development and human resource functions. Other general and administrative expenses include an allocation of our facility costs and professional fees for legal, consulting and accounting services.

Interest Income (Expense) and Other, Net. Interest income and other income or expense, net, consists of interest on our cash, cash equivalents and short-term investments and rental income and other income. Our cash equivalents consist of money market investments and our short term investments consist of certificates of deposit which are included in other current assets. Interest expense includes interest paid on our mortgage loan related to the Corvallis property held for sale. Other income includes rental income on sublease facilities.

Change in Fair Value of Warrants. Warrants issued in connection with our December 2007 and January and August 2009 financings are classified as liabilities as opposed to equity due to their settlement terms. These warrants are non-cash liabilities; we are not required to expend any cash to settle these liabilities. The fair market value of these warrants was recorded on the balance sheet at issuance and the warrants are marked to market each financial reporting period, with changes in the fair value recorded as a gain or loss in our statement of operations. The fair value of the warrants is determined using the Black-Scholes option-pricing model, which requires the use of significant judgment and estimates for the inputs used in the model. For more information, see “Note 9—Warrants” of the financial statements included elsewhere in this Annual Report on Form 10-K.

Critical Accounting Policies and Estimates

The discussion and analysis of our financial condition and results of operations are based upon our financial statements included elsewhere in this Annual Report on Form 10-K. The preparation of our financial statements in accordance with accounting principles generally accepted in the United States, or GAAP, requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and related disclosure of contingent assets and liabilities for the periods presented. Some of these judgments can be subjective and complex, and, consequently, actual results may differ from these estimates. For any given individual estimate or assumption we make, there may also be other estimates or assumptions that are reasonable. We believe that the estimates and judgments upon which we rely are reasonable based upon historical experience and information available to us at the time that we make these estimates and judgments. To the extent there are material differences between these estimates and actual results, our financial statements will be affected. Although we believe that our judgments and estimates are appropriate, actual results may differ from these estimates.

The policies that we believe are the most critical to aid the understanding of our financial results include:

- revenue recognition;
- impairment of long-lived assets;
- stock-based compensation; and
- accounting for and valuation of warrants classified as liabilities.

Revenue Recognition

We have historically generated revenue from our U.S. government research contracts and other license arrangements. For a more detailed description of our revenue recognition policies, see "—Key Financial Metrics" above and "Note 2—Summary of Significant Accounting Policies" of the financial statements included elsewhere in this Annual Report on Form 10-K.

Long-Lived Asset Impairment

Long-lived assets held and used by us and intangible assets with determinable lives are reviewed for impairment whenever events or circumstances indicate that the carrying amount of assets may not be recoverable in accordance with GAAP pronouncements. For more information, see "Note 2—Summary of Significant Accounting Policies" of the financial statements included elsewhere in this Annual Report on Form 10-K.

Stock Compensation Expense

To determine stock-based compensation costs, we apply the provisions of Financial Accounting Standards Board, or FASB, Accounting Standards Codification, or ASC, Topic 718, Share-Based Payments. We use the Black-Scholes option pricing model for determining the estimated fair value for stock-based awards on the date of grant, which requires the use of subjective and complex assumptions to determine the fair value of stock-based awards, including the option's expected term and the price volatility of the underlying stock. We recognize the value of the portion of the awards that is ultimately expected to vest as expense over the requisite vesting periods on a straight-line basis for the entire award. Stock options granted to employees are service-based and prior to December 31, 2010 typically vest over a three year period, with one-third of the underlying shares vesting on each anniversary of grant, and have a ten year term. Beginning in January 2011, stock options will typically vest over a four year period, with one fourth of the underlying shares vesting on the first anniversary of the grant and 1/48th of the underlying shares vesting monthly thereafter, such that the underlying shares will be fully vested on the fourth anniversary of the grant. Compensation expense of $3.2 million is shown in the operating activities section of the statements of cash flows. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. The following table summarizes the weighted average assumptions used in determining the fair value of stock options granted:

	Year Ended December 31,		
	2010	2009	2008
Risk-free interest rate	1.4% -3.8%	1.2% -1.8%	1.1% -3.4%
Expected dividend yield	—%	—%	—%
Expected lives	5.3 -8.0 years	3.6 -9.1 years	3.6 -9.1 years
Expected volatility	82.5% - 90.3%	92.0% - 94.4%	81.0% - 90.7%

The risk free interest rate is estimated using an average of treasury bill interest rates over a historical period commensurate with the expected life of the option that correlates to the prevailing interest rates at the time of grant. The expected dividend yield is zero as we have not paid any dividends to date and do not expect to pay dividends in the future. The expected lives are estimated using expected and historical exercise behavior. The expected volatility is estimated using calculated volatility of our common stock over a historical period commensurate with the expected life of the option. The amounts estimated according to the Black-Scholes option pricing model may not be indicative of the actual values realized upon the exercise of these options by the holders.

The assumptions used in calculating the fair value of stock-based compensation expense represent management's best estimates, but these estimates involve inherent uncertainties and the application of management judgment. As a result, if factors change and we use different assumptions, our stock-based compensation expense could be materially different in the future. See "Note 3—Stock Compensation" of the audited financial statements included elsewhere in this Annual Report on Form 10-K for a further discussion of stock-based compensation.

Warrant Liability

In December 2007 and January and August of 2009, we issued warrants to purchase an aggregate of 29.7 million shares of our common stock in connection with a registered direct offering of our common stock and warrants. These warrants are classified as a liability due to their settlement terms. These warrants are non-cash liabilities; we are not required to expend any cash to settle these liabilities.

The fair value of the warrants is recorded on our consolidated balance sheet as a liability, and such fair value is adjusted at each financial reporting period with the adjustment to fair value reflected in our consolidated statement of operations. The fair value of the warrants is determined using the Black-Scholes option pricing model. Fluctuations in the assumptions and factors used in the Black-Scholes model can result in adjustments to the fair value of the warrants reflected on our balance sheet and, therefore, our statement of operations. If, for

example, the market value of our common stock or its volatility at December 31, 2010 were 10% higher or lower than used in the valuation of such warrants, our valuation of the warrants would have increased by up to $5.2 million or decreased up to $5.1 million, respectively, with such difference reflected in our statement of operations.

Results of Operations for the years ended December 31, 2010, 2009 and 2008

The following table sets forth selected consolidated statements of operations data for each of the periods indicated:

Summary of Results for Fiscal Years 2010, 2009 and 2008

	Year Ended December 31,		
	2010	2009	2008
	(in thousands, except per share amounts)		
Operations data:			
Revenues	$ 29,420	$ 17,585	$ 21,258
Research and development	35,972	24,396	27,331
General and administrative	14,382	8,696	11,469
Acquired in-process research and development	—	—	9,916
Operating loss	(20,934)	(15,507)	(27,458)
Interest (expense) income, and other net	259	(454)	344
Decrease (increase) on warrant valuation	(11,502)	(9,198)	3,161
Net loss	(32,177)	(25,159)	(23,953)
Net loss per share - basic and diluted	$ (0.29)	$ (0.27)	$ (0.34)

Revenue

Revenue for 2010 increased by $11.8 million, or 67%, compared to 2009 due to the increase from the new Ebola and Marburg contract of $9.8 million, increases in revenue from the H1N1 contracts of $12.3 million, and an increase of $1.2 million from the U.S. government's Qualifying Therapeutic Discovery Project, partially offset by a $11.5 million decrease in revenue from the 2006 Ebola, Marburg and Junín contract and decreases in Children's National Medical Center contract related to DMD.

Revenue for 2009 decreased by $3.7 million, or 17%, compared to 2008 due to a decline in revenues from the 2006 Ebola, Marburg and Junín research contract.

Research and Development Expenses

Research and development expenses for 2010 increased by $11.6 million, or 47%, compared to 2009 due primarily to $5.6 million in costs related to the July 2010 Ebola and Marburg government contract and $4.2 million in costs related to the June 2010 H1N1 government contract. Both of these contracts were new in 2010. Additionally, $5.5 million is related to the increased production of therapeutic drug substance, a $1.5 million increase in costs for the 2009 H1N1 government contract offset by a $4.3 million decline in spending related to the 2006 Ebola, Marburg and Junín government contracts and a $0.9 million decline in all other R&D accounts for the total increase in research and development costs for 2010.

Research and development expenses for 2009 decreased by $2.9 million, or 11%, compared to 2008 due primarily to lower activity with respect to U.S. government research projects.

General and Administrative Expenses

General and administrative expenses for 2010 increased by $5.7 million, or 65%, compared to 2009. This significant increase in 2010 was due to $2.6 million in severance costs and stock compensation expense related to the departure in April 2010 of our former chief executive officer and an increase of $2.0 million of higher employee costs related to the increase in new staff hired to execute the new Ebola, Marburg and H1N1 government contracts. Other increases included legal costs of $0.9 million, facilities expense of $0.4 million for the addition of our new Bothell, Washington facilities, and a $0.4 million loss on the write down of the property held for sale, partially offset by a $0.6 million decrease in professional consulting costs.

General and administrative expenses for 2009 decreased by $2.8 million, or 24%, compared to 2008. The decrease was due primarily to non-cash costs related to common stock issued to Ercole executives in connection with the 2008 acquisition of Ercole, 2008 severance and stock compensation expenses related to the resignation of former executive officers, and relocation costs for new executive officers.

Interest Income (Expense) and Other, Net

The increase in interest income (expense) and other, net for 2010 compared to 2009 was attributable to increased interest income on invested cash of $0.1 million and $0.1 million from increased rental income from the sublease of excess space in our Corvallis, Oregon facility, compared to $0.5 million in patents abandonments and impairment of property held for sale that occurred in 2009.

Interest income (expense) and other, net for 2009 declined $0.8 million, compared to 2008 primarily due to declines in market rates of interest on our interest earning investments and the write off of patents and property held for sale.

Change in Fair Value of Warrant Liability

The increase in fair value of warrant liability of $11.5 million in 2010 compared to the increase in fair value of warrant liability of $9.2 million in 2009 was primarily attributable to the changes in our stock price. The increase in fair value of warrant liability of $9.2 million in 2009 compared to the decrease in fair value of warrant liability of $3.2 million in 2008 was attributable to the issuance of new warrants in 2009 and changes in our stock price.

Net Loss

The increase in net loss of $7.0 million, or 28% for 2010 compared to 2009 was primarily attributable to an increase in general and administrative costs and the increase in the warrant liability, partially offset by an increase in interest and rent income.

The increase in net loss of $1.2 million for 2009 compared to 2008 was attributable primarily to the increase in the fair value of warrant liability, partially off-set by a combined reduction of research and development costs and general and administration costs, and a reduction of one-time costs for acquired in process research and development of $9.9 million related to the acquisition of Ercole Biotech.

Liquidity and Capital Resources

At December 31, 2010, cash and cash equivalents were $33.6 million, compared to $48.3 million at December 31, 2009. Our principal sources of liquidity are revenue from our U.S. government research contracts and equity financings. Our principal uses of cash are research and development expenses, general and administrative expenses and other working capital requirements. Based on the factors described below, we believe that our currently available cash, cash equivalents and short-term investments, exclusive of receipt of future proceeds pursuant to our contracts with the U.S. government, are sufficient to finance our operations for at least the next 12 months.

Sources of Funds

Our primary source of revenue is from development of product candidates pursuant to our contracts with the U.S. government. Government funding is subject to the U.S. government's appropriations process and the U.S. government has the right under our contracts with them to terminate such contracts for convenience. If U.S. government funding is not received or is delayed, our results of operations could be materially and adversely affected and we may need to seek additional sources of capital. We do not generate any revenue from non-government, commercial sale of our pharmaceutical product candidates.

In January 2009, we sold approximately 14.2 million shares of our common stock and also issued warrants to purchase approximately 14.2 million shares of our common stock in an offering registered under the Securities Act of 1933, or the Securities Act. The offering generated net proceeds of approximately $15.5 million. The warrants issued to the investors in the offering have an exercise price of $1.16 per share and are exercisable at any time on or before July 30, 2014. In connection with the offering, we also issued to the placement agent a warrant to purchase approximately 427,000 shares of our common stock at an exercise price of $1.45 per share. The warrant issued to the placement agent is exercisable on or before January 30, 2014.

In August 2009, we sold approximately 24.3 million shares of our common stock and also issued warrants to purchase approximately 9.7 million shares of our common stock in an offering registered under the Securities Act. The offering generated net proceeds of approximately $32.3 million. The warrants issued to the investors in the offering have an exercise price of $1.78 per share and are exercisable at any time on or before August 25, 2014.

We will require additional capital from time to time in the future in order to continue the development of products and to expand our product portfolio. We expect to seek additional financing primarily from, but not limited to, the sale and issuance of equity or debt securities. We cannot assure you that financing will be available when and as needed or that, if available, the financings will be on favorable or acceptable terms. If we are unable to obtain additional financing when and if we require, it would have a material adverse effect on our business and results of operations. To the extent we issue additional equity securities, our existing shareholders could experience substantial dilution.

We have never generated material commercial revenue from the sale of our non-governmental products and cannot offer any assurances that we will be able to do so in the future.

Uses of Funds

From inception in 1980 through the date of this Annual Report on Form 10-K, our accumulated deficit is $307.6 million. Our principal uses of cash have been research and development expenses, general and administrative expenses, costs associated with the acquisition of in-process research and development and other working capital requirements.

Historical Trends

	Year Ended December 31,		
	2010	2009	2008
		(in thousands)	
Cash provided by (used in):			
Operating activities	$(15,209)	$ (8,800)	$ (12,340)
Investing activities	(1,961)	(1,883)	(1,239)
Financing activities	2,484	47,766	(32)
Increase (decrease) in cash and equivalents	$(14,686)	$ 37,083	$(13,611)

Operating Activities. We used $15.2 million of cash in operating activities for the year ended December 31, 2010, an increase of $6.4 million, or 73%, compared to $8.8 million of cash used in operating activities for the year ended December 31, 2009. The increase in net cash used in operating activities during the comparative

periods was primarily attributable to increased research and development costs and higher general and administrative expenses, partially offset by higher revenue. We used $8.8 million of cash in operating activities for the year ended December 31, 2009, a decrease of $3.5 million, or 29%, compared to $12.3 million of cash used in operating activities for the year ended December 31, 2008. The decrease in net cash used in operating activities during the comparative periods was primarily attributable to the reduction in accounts receivable.

Investing Activities. We used $2.0 million of cash in investing activities for the year ended December 31, 2010, an increase of $0.1 million, or 4%, compared to $1.9 million of cash used in investing activities for the year ended December 31, 2009. The majority of the increase in cash used for investing activities was attributable to increased spending on fixed assets with no liquidation of a certificate of deposit in 2010 as occurred in 2009.

We used $1.9 million of cash in investing activities for the year ended December 31, 2009, an increase of $0.6 million, or 52%, compared to $1.2 million of cash used in investing activities for the year ended December 31, 2008. The increase in cash used for investing activities was attributable to increased spending on patents and fixed assets, partially offset by the liquidation of a certificate of deposit.

Financing Activities. We had financing activities of $2.5 million that consisted of stock option and warrant exercises and debt repayment for the year ended December 31, 2010. The $47.8 million of cash generated by financing activities for the year ended December 31, 2009 was attributable to our January and August 2009 equity financings, slightly offset by loan payments for the property held for sale.

Our future expenditures and capital requirements depend on numerous factors, most of which are difficult to project beyond the short term. These requirements include our ability to meet the requirements of our U.S. government research projects, the progress of our research and development programs and our pre-clinical and clinical trials, the time and costs involved in obtaining regulatory approvals, the cost of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights, competing technological and market developments, our ability to establish collaborative arrangements and the terms of any such arrangements, and the costs associated with commercialization of our products. Our cash requirements are expected to continue to increase as we advance our research, development and commercialization programs.

Off-Balance Sheet Arrangements

During the periods presented, we did not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or for another contractually narrow or limited purpose.

Contractual Payment Obligations

In our continuing operations, we have entered into long-term contractual arrangements from time to time for our facilities, the provision of goods and services, and acquisition of technology access rights, among others. The following table presents contractual obligations arising from these arrangements as of December 31, 2010:

	Payments Due By Period				
Contractual Obligations	Total	2011	2012 and 2013	2014 and 2015	2016 and beyond
			(in thousands)		
Operating leases	$ 18,189	$ 2,403	$ 4,441	$ 3,446	$7,899
Royalty payments	1,270	100	160	235	775
	$19,459	$2,503	$4,601	$3,681	$ 8,674

Recent Accounting Pronouncements

See “Note 2—Summary of Significant Accounting Policies—Recent Accounting Pronouncements” of the financial statements included elsewhere in this Annual Report on Form 10-K.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

We had cash, cash equivalents, and short-term investments of $33.8 million and $48.4 million at December 31, 2010 and 2009, respectively. We do not enter into investments for trading or speculative purposes; our cash equivalents are invested in money market accounts and our short-term investments consisted of short-term certificates of deposit. We believe that we do not have any material exposure to changes in the fair value of these assets in the near term due to extremely low rates of investment interest and to the short term nature of our cash, cash equivalents, and short-term investments. Future declines in interest rates, however, would reduce investment income, but are not likely to be a material source of revenue to our company in the foreseeable future. A 0.001% decline in interest rates, occurring January 1, 2010 and sustained throughout the period ended December 31, 2010, would result in a decline in investment income of approximately $41,000 for that same period.

Item 8. Financial Statements and Supplementary Data.

The information required by this Item 8 begins on page F-1 in Item 15 of Part IV of this Annual Report on Form 10-K and is incorporated into this item by reference.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

Disclosure Controls and Procedures

We carried out an evaluation as of the end of the period covered by this Annual Report on Form 10-K, under the supervision and with the participation of our management, including our Chief Executive Officer and our Chief Financial Officer, of the effectiveness of our disclosure controls and procedures pursuant to paragraph (b) of Rule 13a-15 and 15d-15 under the Exchange Act. Based on that review, the Chief Executive Officer and the Chief Financial Officer have concluded that our disclosure controls and procedures are effective to ensure that information required to be disclosed by us in the reports we file or submit under the Exchange Act (1) is recorded, processed, summarized, and reported within the time periods specified in the Securities and Exchange Commission's rules and forms, and (2) is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

We do not expect that our disclosure controls and procedures will prevent all error and all fraud. A control procedure, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control procedure are met. Because of the inherent limitations in all control procedures, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within our company have been detected. These inherent limitations include the realities that judgments in decision making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the control. We considered these limitations during the development of our disclosure controls and procedures, and will continually reevaluate them to ensure they provide reasonable assurance that such controls and procedures are effective.

Internal Control over Financial Reporting

Management's Annual Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting for our company, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act.

Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles, and includes those policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management assessed the effectiveness of our internal control over financial reporting as of December 31, 2010. In making this assessment, management used the criteria in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this assessment, management has concluded that, as of December 31, 2010, our internal control over financial reporting was effective.

The effectiveness of our internal control over financial reporting as of December 31, 2010 has been audited by KPMG LLP, an independent registered public accounting firm, as stated in their report which appears in this Annual Report on Form 10-K.

Changes in Internal Control over Financial Reporting

There have not been any changes in our internal control over financial reporting as defined in Rules 13a–15(f) and 15d–15(f) under the Exchange Act during the quarter ended December 31, 2010 that our certifying officers concluded materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders
AVI BioPharma, Inc:

We have audited AVI BioPharma, Inc.'s (a development stage company) internal control over financial reporting as of December 31, 2010, based on criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). AVI BioPharma, Inc.'s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Managements' Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on AVI BioPharma, Inc.'s internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, AVI BioPharma, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2010, based on criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the balance sheets of AVI BioPharma, Inc. (a development stage company) as of December 31, 2010 and 2009, and the related statements of operations, shareholders' equity (deficit) and comprehensive income (loss), and cash flows for each of the years in the three-year period ended December 31, 2010 and the information included in the cumulative from inception presentations for the period January 1, 2002 to December 31, 2010 (not separately presented herein), and our report dated March 14, 2011 expressed an unqualified opinion on those financial statements. The financial statements of AVI BioPharma, Inc. for the period July 22, 1980 (inception) to December 31, 2001 were audited by other auditors who have ceased operations. Those auditors expressed an unqualified opinion on those financial statements in their report dated February 21, 2002.

/s/ KPMG LLP

Seattle, Washington
March 14, 2011

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information regarding our directors and executive officers required by this item is included in our definitive proxy statement for our 2011 annual meeting of shareholders to be filed with the Commission not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K and is incorporated herein by reference.

Item 11. Executive Compensation.

The information required by this item is included in our definitive proxy statement for our 2011 annual meeting of shareholders to be filed with the Commission not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K and is incorporated herein by reference.

Item 12. SecurityOwnership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information required by this item is included in our definitive proxy statement for our 2011 annual meeting of shareholders to be filed with the Commission not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K and is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information required by this item is included in our definitive proxy statement for our 2011 annual meeting of shareholders to be filed with the Commission not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K and is incorporated herein by reference.

Item 14. Principal Accountant Fees and Services.

The information required by this item is included in our definitive proxy statement for our 2011 annual meeting of shareholders to be filed with the Commission not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K and is incorporated herein by reference.

PART IV

Item 15. Exhibits, Financial Statement Schedules.

(a) The following documents are filed as part of this Annual Report on Form 10-K:

(1) Financial Statements

The following financial statements of the Company and the Report of KPMG LLP, Independent Auditors, are included in Part IV of this Annual Report on Form 10-K on the pages indicated:

(2) Financial Statement Schedules

All schedules are omitted because they are not applicable or the required information is shown in the financial statements or the notes thereto.

(3) Exhibits

The exhibits required by Item 601 of Regulation S-K are listed in paragraph (b) below.

(b) Exhibits.

The following exhibits are filed herewith or are incorporated by reference to exhibits previously filed with the SEC:

		Incorporated by Reference to Filings Indicated				
Exhibit Number	Description	Form	File No.	Exhibit	Filing Date	Filed Herewith
2.1	Agreement and Plan of Merger dated March 12, 2008 by and among AVI BioPharma, Inc., EB Acquisition Corp., Ercole Biotech, Inc. and the Stockholder Representative.	8-K	001-14895	2.1	3/13/08	
3.1	Third Restated and Amended Articles of Incorporation of Antivirals, Inc.	SB-2	333-20513	3.1	1/28/97	
3.2	First Amendment to Third Restated and Amended Articles of Incorporation of Antivirals, Inc.	8-K	000-22613	3.3	9/30/98	
3.3	Articles of Amendment to Article 2 of the Third Restated and Amended Articles of Incorporation of AVI BioPharma, Inc., as amended.	Schedule 14A	001-14895	Appendix B	4/11/02	
3.4	Amended and Restated Bylaws of AVI BioPharma, Inc.					X

Exhibit Number	Description	Incorporated by Reference to Filings Indicated				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
4.1	Form of Specimen Certificate for Common Stock.					X
4.2	Form of Warrant to Purchase Common Stock, issued on December 19, 2007.	8-K	001-14895	4.5	12/13/07	
4.3	Form of Common Stock Purchase Warrant, issued on January 30, 2009.	8-K	001-14895	4.4	1/30/09	
4.4	Form of Common Stock Purchase Warrant, issued on August 25, 2009.	8-K	001-14895	4.1	8/24/09	
10.1†	Employment Agreement with Dwight Weller, Ph.D., dated November 4, 1996.	SB-2	333-20513	10.5	5/29/97	
10.2†	Amendment to Employment Agreement with Dwight Weller, Ph.D., dated December 28, 2008.					X
10.3†	Amendment No. 2 to Employment Agreement with Dwight Weller, Ph.D., dated January 19, 2010.					X
10.4†	Employment Agreement with Patrick Iversen, Ph.D., dated July 14, 1997.	10KSB	000-22613	10.12	3/30/98	
10.5†	Amendment to Employment Agreement with Patrick Iversen, Ph.D., dated December 28, 2008.					X
10.6†	Amendment No. 2 to Employment Agreement with Patrick Iversen, Ph.D., dated January 18, 2010.					X
10.7†	Employment Agreement dated February 8, 2008 by and between AVI BioPharma, Inc. and Leslie Hudson, Ph.D.	10-Q	001-14895	10.63	5/12/08	
10.8†	Employment Agreement dated April 10, 2008 by and between AVI BioPharma, Inc. and Dr. Ryszard Kole.	10-Q	001-14895	10.64	8/11/08	
10.9†	Amendment to Employment Agreement with Dr. Ryszard Kole, dated October 16, 2009.					X
10.10†	Employment Agreement dated July 24, 2008 by and between AVI BioPharma, Inc. and J. David Boyle II.					X
10.11†	Amendment No. 1 to Employment Agreement dated August 1, 2008 by and between AVI BioPharma, Inc. and J. David Boyle II.					X
10.12†	Amendment No. 2 to Employment Agreement with J. David Boyle II, dated November 3, 2009.					X

Exhibit Number	Description	Incorporated by Reference to Filings Indicated				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.13†	Employment Agreement dated January 26, 2009 between AVI BioPharma, Inc. and Stephen Bevan Shrewsbury, M.D.	10-Q	001-14895	10.71	5/11/09	
10.14†	Amendment to Employment Agreement with Stephen Bevan Shrewsbury, M.D., dated October 16, 2009.					X
10.15†	Employment Agreement dated May 15, 2009 between AVI BioPharma, Inc. and Paul Medeiros.					X
10.16†	Amendment to Employment Agreement with Paul Medeiros, dated October 16, 2009.					X
10.17†	Executive Employment Agreement dated December 17, 2010 by and between AVI BioPharma, Inc. and Christopher Garabedian.					X
10.18†	Offer Letter between AVI BioPharma, Inc. and Graham Johnson, B.Sc., Ph.D., dated July 9, 2010					X
10.19	Separation and Release Agreement dated April 20, 2010 between Leslie Hudson and AVI BioPharma, Inc.	8-K	001-14895	10.2	4/22/10	
10.20	Professional Services Agreement between James B. Hicks Ph.D., LLC and AVI BioPharma, Inc., dated October 26, 2007.	10-K	001-14895	10.61	3/17/08	
10.21	Engagement Letter dated January 28, 2009 between AVI BioPharma, Inc. and Rodman & Renshaw, LLC.	8-K	001-14895	1.3	1/30/09	
10.22†	2002 Equity Incentive Plan.	Schedule 14A	001-14895	Appendix A	4/11/02	
10.23†	AVI BioPharma, Inc. Non-Employee Director Compensation Policy.	8-K	001-14895	10.85	10/1/10	
10.24†	Form of Indemnification Agreement.	8-K	001-14895	10.86	10/8/10	
10.25	Technology Transfer Agreement between Anti-Gene Development Group and Antivirals, Inc., dated February 9, 1992.	SB-2	333-20513	10.6	5/29/97	
10.26	License and Option Agreement between Anti-Gene Development Group and Antivirals, Inc., dated February 9, 1993.	SB-2	333-20513	10.8	1/28/97	
10.27	Amendment to Technology Transfer Agreement between Anti-Gene Development Group and Antivirals, Inc. dated January 20, 1997.	SB-2	333-20513	10.7	1/28/97	

Exhibit Number	Description	Incorporated by Reference to Filings Indicated				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.28	2000 Amendment to Technology Transfer Agreement between Anti-Gene Development Group and AVI BioPharma, Inc., dated March 9, 2000.	S-1	333-39542	10.23	6/16/00	
10.29	License Agreement between ImmunoTherapy Corporation, The Ohio State University and The Ohio State University Research Foundation, dated March 12, 1996.	S-4	333-60849	10.17	8/7/98	
10.30	License Agreement between ImmunoTherapy Corporation, The Ohio State University and The Ohio State University Research Foundation, dated December 26, 1996.	S-4	333-60849	10.18	8/7/98	
10.31	Amendment to License Agreement between ImmunoTherapy Corporation and The Ohio State University Research Foundation, dated September 23, 1997.	S-4	333-60849	10.19	8/7/98	
10.32*	Collaboration and License Agreement between Isis Pharmaceuticals and Ercole Biotech, Inc. dated May 16, 2003.	10-K	001-14895	10.78	3/16/10	
10.33*	License Agreement dated January 26, 2006 by and between Chiron Corporation and AVI BioPharma, Inc.	10-Q	001-14895	10.53	5/10/06	
10.34*	License and Development Agreement, dated March 10, 2006, by and between Cook Group Incorporated and AVI BioPharma, Inc.	S-3	333-133211	10.51	4/11/06	
10.35*	Cross License Agreement dated January 8, 2007 by and between Eleos, Inc. and AVI BioPharma, Inc.	10-Q	001-14895	10.58	5/10/07	
10.36	Exclusive License Agreement by and between The University of Western Australia and AVI BioPharma, Inc., dated November 24, 2008.					X
10.37	United States of America Sales, Distribution, and Development Agreement, dated April 4, 2000, between SuperGen, Inc. and AVI BioPharma, Inc.	10-K	001-14895	10.29	3/27/01	
10.38*	Supply Agreement, dated March 10, 2006, by and between Cook Group Incorporated and AVI BioPharma, Inc.	S-3	333-133211	10.50	4/11/06	
10.39	Agreement between AVI BioPharma, Inc. and the U.S. Defense Threat Reduction Agency dated May 5, 2009.	10-Q	001-14895	10.72	8/10/09	
10.40	Amendment of Contract between AVI BioPharma, Inc. and the U.S. Defense Threat Reduction Agency (contract no. HDTRA1-07-C-0010), effective May 29, 2009.	10-Q	001-14895	10.74	8/10/09	

Exhibit Number	Description	Incorporated by Reference to Filings Indicated				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.41	Amendment of Contract between AVI BioPharma, Inc. and the U.S. Defense Threat Reduction Agency (contract no. HDTRA 1-07-C0010), effective September 30, 2009.	10-Q	001-14895	10.77	11/9/09	
10.42*	Amendment of Contract between AVI BioPharma, Inc. and the U.S. Defense Threat Reduction Agency (contract no HDTRA 1-09-C-0046), effective March 25, 2010.	10-Q	001-14895	10.81	5/10/10	
10.43*	Contract Number HDTRA1-10-C-0079 between Defense Threat Reduction Agency and AVI BioPharma, Inc. dated June 4, 2010.	10-Q	001-14895	10.84	8/9/10	
10.44*	Contract Number W9113M-10-C-0056 between U.S. Army Space and Missile Defense Command and AVI BioPharma, Inc. dated July 14, 2010.	10-Q	001-14895	10.86	11/9/10	
10.45*	Sponsored Research Agreement between AVI BioPharma, Inc. and Charley's Fund, Inc., effective October 12, 2007.	10-K	001-14895	10.58	3/17/08	
10.46*	First Amendment to Sponsored Research Agreement between AVI BioPharma, Inc. and Charley's Fund, Inc. dated June 2, 2009.	10-Q	001-14895	10.75	8/10/09	
10.47	Common Stock and Warrant Purchase Agreement, dated April 4, 2000, between SuperGen, Inc. and AVI BioPharma, Inc.	S-3	333-45888	4.1	9/15/00	
10.48	Registration Rights Agreement, dated April 4, 2000, between SuperGen, Inc. and AVI BioPharma, Inc.	S-3	333-45888	4.2	9/15/00	
10.49	Shareholder's Trust Agreement between and among AVI BioPharma, Inc., AVI Shareholder Advocacy Trust, The Shareholder Advocate LLC, and Richard Macary, dated October 29, 2007.	10-K	001-14895	10.59	3/17/08	
10.50	Securities Purchase Agreement dated January 29, 2009 between AVI BioPharma, Inc. and the Purchasers identified on the signature pages thereto.	8-K	001-14895	10.67	1/30/09	
10.51†	Letter Agreement Regarding Board of Director Representation dated January 29, 2009 between AVI BioPharma, Inc. and Eastbourne Capital Management, LLC.	8-K	001-14895	10.68	1/30/09	
10.52	Commercial Lease between Research Way Investments, Landlord, and Antivirals, Inc., Tenant, effective June 15, 1992.	SB-2	333-20513	10.9	1/28/97	
10.53	Lease Extension and Modification Agreement dated September 1, 1996, by and between Research Way Investments and Antivirals, Inc.					X

Exhibit Number	Description	Incorporated by Reference to Filings Indicated				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.54	Second Lease Extension and Modification Agreement dated January 24, 2006 by and between Research Way Investments and AVI BioPharma, Inc.	10-Q	001-14895	10.55	8/9/06	
10.55	Real Property Purchase Agreement by and between WKL Investments Airport, LLC and AVI BioPharma, Inc., dated March 1, 2007, as amended.	10-Q	001-14895	10.61	8/9/07	
10.56	Lease dated July 24, 2009 by and between BMR-3450 Monte Villa Parkway, LLC and AVI BioPharma, Inc.	10-Q	001-14895	10.76	11/9/09	
10.57	Lease dated October 20, 2010, by and between S/I North Creek VII LLC and AVI BioPharma, Inc.					X
10.58	Settlement Agreement dated April 20, 2010 among AVI BioPharma, Inc. and the Shareholder Group (as defined therein).	8-K	001-14895	10.1	4/22/10	
21.1	Subsidiaries of the Registrant.	10-K	001-14895	21.1	3/16/10	
23.1	Consent of Independent Registered Public Accounting Firm.					X
24.1	Power of Attorney (contained on signature page).					X
31.1	Certification of Christopher Garabedian, President and Chief Executive Officer, pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
31.2	Certification of J. David Boyle II, Chief Financial Officer, pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
32.1	Certification of Christopher Garabedian, President and Chief Executive Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002					X
32.2	Certification of J. David Boyle II, Chief Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X

* Confidential treatment has been granted for portions of this exhibit.
† Indicates management contract or compensatory plan, contract or arrangement.

(c) Financial Statement Schedules.

All schedules are omitted because they are not applicable or the required information is shown in the financial statements or the notes thereto.

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Dated: March 14, 2011

AVI BIOPHARMA, INC.

By: /s/ Christopher Garabedian
Christopher Garabedian
President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Christopher Garabedian, J. David Boyle II and Effie Toshav, and each of them, with full power of substitution and resubstitution and full power to act without the other, as his or her true and lawful attorney-in-fact and agent to act in his or her name, place and stead and to execute in the name and on behalf of each person, individually and in each capacity stated below, and to file, any and all documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing, ratifying and confirming all that said attorneys-in-fact and agents or any of them or their and his or her substitute or substitutes, may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated on March 14, 2011:

Signature	Title
/s/ Christopher Garabedian Christopher Garabedian	President, Chief Executive Officer and Director (Principal Executive Officer)
/s/ J. David Boyle II J. David Boyle II	Senior Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)
/s/ William Goolsbee William Goolsbee	Chairman of the Board
/s/ M. Kathleen Behrens M. Kathleen Behrens, Ph.D.	Director
/s/ Anthony Chase Anthony Chase	Director
/s/ John C. Hodgman John C. Hodgman	Director
/s/ Gil Price Gil Price, M.D.	Director
/s/ Hans Wigzell Hans Wigzell, M.D., Ph.D.	Director

Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders
AVI BioPharma, Inc:

We have audited the accompanying balance sheets of AVI BioPharma, Inc. (a development stage company) as of December 31, 2010 and 2009, and the related statements of operations, shareholders' equity (deficit) and comprehensive income (loss), and cash flows for each of the years in the three-year period ended December 31, 2010 and the information included in the cumulative from inception presentations for the period January 1, 2002 to December 31, 2010 (not separately presented herein). These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. The financial statements of AVI BioPharma, Inc. for the period July 22, 1980 (inception) to December 31, 2001 were audited by other auditors who have ceased operations. Those auditors expressed an unqualified opinion on those financial statements in their report dated February 21, 2002.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of AVI BioPharma, Inc. (a development stage company) as of December 31, 2010 and 2009, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2010 and the information included in the cumulative from inception presentations for the period January 1, 2002 to December 31, 2010 (not separately presented herein), in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of AVI BioPharma, Inc.'s internal control over financial reporting as of December 31, 2010, based on criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report, dated March 14, 2011 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

/s/ KPMG LLP

Seattle, Washington

March 14, 2011

THIS REPORT IS A CONFORMED COPY OF THE REPORT PREVIOUSLY ISSUED BY ARTHUR ANDERSEN LLP AND HAS NOT BEEN REISSUED BY THAT FIRM.

Report of Independent Public Accountants

To the Board of Directors and Shareholders of AVI BioPharma, Inc.

We have audited the accompanying balance sheet of AVI BioPharma, Inc. (an Oregon corporation in the development stage) as of December 31, 2001, and the related statements of operations, shareholders' equity and cash flows for each of the two years in the period ended December 31, 2001 and for the period from inception (July 22, 1980) to December 31, 2001. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of AVI BioPharma, Inc. as of December 31, 2001, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2001 and for the period from inception (July 22, 1980) to December 31, 2001, in conformity with accounting principles generally accepted in the United States.

/s/ Arthur Andersen LLP

Portland, Oregon
February 21, 2002

AVI BioPharma, Inc.
(A Development Stage Company)

Balance Sheets

(in thousands)	December 31, 2010	December 31, 2009
Assets		
Current Assets:		
Cash and cash equivalents	$ 33,589	$ 48,275
Accounts receivable	3,224	2,085
Other current assets	1,025	950
Total Current Assets	37,838	51,310
Property held for sale	1,965	2,372
Property and Equipment, net of accumulated depreciation and amortization of $14,963 and $14,026	2,070	2,466
Patent Costs, net of accumulated amortization of $1,742 and $1,762	3,980	3,759
Other assets	123	120
Total Assets	$ 45,976	$ 60,027
Liabilities and Shareholders' Equity (Deficit)		
Current Liabilities:		
Accounts payable	$ 1,311	$ 1,381
Accrued employee compensation	2,015	922
Long-term debt, current portion	81	77
Warrant valuation	39,111	27,609
Deferred revenue	3,304	3,428
Other liabilities	35	90
Total Current Liabilities	45,857	33,507
Commitments and Contingencies		
Long-term debt, non-current portion	1,842	1,924
Other long-term liabilities	1,094	966
Shareholders' Equity (Deficit):		
Preferred stock, $.0001 par value, 20,000,000 shares authorized; none issued and outstanding	—	—
Common stock, $.0001 par value, 200,000,000 shares authorized; 112,352,452 and 110,495,587 issued and outstanding	11	11
Additional paid-in capital	304,818	299,088
Deficit accumulated during the development stage	(307,646)	(275,469)
Total Shareholders' Equity (Deficit)	(2,817)	23,630
Total Liabilities and Shareholders' Equity (Deficit)	$ 45,976	$ 60,027

See accompanying notes to financial statements.

AVI BioPharma, Inc.
(A Development Stage Company)

Statements of Operations

(in thousands)	Year ended December 31, 2010	2009	2008	July 22, 1980 (Inception) through December 31, 2010
Revenues from license fees, grants and research contracts	$ 29,420	$ 17,585	$ 21,258	$ 89,229
Operating expenses:				
Research and development	35,972	24,396	27,331	266,404
General and administrative	14,382	8,696	11,469	88,402
Acquired in-process research and development	—	—	9,916	29,461
Operating loss	(20,934)	(15,507)	(27,458)	(295,038)
Other non-operating (loss) income:				
Interest (expense) income and other, net	259	(454)	344	8,582
(Increase) decrease on warrant valuation	(11,502)	(9,198)	3,161	(8,052)
Realized gain on sale of short-term securities— available-for-sale	—	—	—	3,863
Write-down of short-term securities— available-for-sale	—	—	—	(17,001)
	(11,243)	(9,652)	3,505	(12,608)
Net loss	$ (32,177)	$(25,159)	$(23,953)	$ (307,646)
Net loss per share—basic and diluted	$ (0.29)	$ (0.27)	$ (0.34)	
Weighted average number of common shares outstanding for computing basic and diluted loss per share	111,233	93,090	69,491	

See accompanying notes to financial statements.

AVI BioPharma, Inc.
(A Development Stage Company)

Statements of Shareholders' Equity (Deficit) and Comprehensive Income (Loss)

(in thousands)	Partnership Units	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Deficit Accumulated During the Development Stage	Total Shareholders' Equity (Deficit)
BALANCE AT JULY 22, 1980 (Inception)	—	—	$ —	$ —	$ —	$ —	$ —
Issuance of partnership units, warrants and common stock	3,615	8,273	1	33,733	—	—	33,734
Compensation expense related to issuance of warrants for common stock and partnership Units	—	—	—	537	—	—	537
Exercise of warrants for partnership units and common stock	42	2,248	—	4,152	—	—	4,152
Exercise of options for common stock	—	1,029	—	4,124	—	—	4,124
Issuance of common stock for ESPP	—	770	—	2,260	—	—	2,260
Issuance of common stock and warrants for cash and securities, net of offering costs	—	47,882	5	176,795	—	—	176,800
Issuance of common stock and warrants for the acquisition of ImmunoTherapy Corporation	—	2,132	—	17,167	—	—	17,167
Issuance of common stock and warrants for services	—	536	—	2,469	—	—	2,469
Compensation expense related to issuance of options for common stock	—	—	—	7,155	—	—	7,155
Stock-based compensation	—	—	—	4,719	—	—	4,719
Conversion of debt into common stock and partnership units	9	10	—	88	—	—	88
Issuance of common stock in exchange for partnership units	(1,810)	1,633	—	—	—	—	—
Withdrawal of partnership net assets upon conveyance of technology	(1,856)	—	—	(177)	—	—	(177)
Common stock subject to rescission, net	—	(64)	—	(289)	—	—	(289)
Comprehensive income (loss):							
Write-down of short-term securities— available-for-sale	—	—	—	—	17,001	—	17,001
Realized gain on sale of short-term securities— available-for-sale	—	—	—	—	(3,766)	—	(3,766)
Unrealized loss on short-term securities— available-for-sale	—	—	—	—	(13,235)	—	(13,235)
Net loss	—	—	—	—	—	(226,357)	(226,357)
Comprehensive loss							(226,357)
BALANCE AT DECEMBER 31, 2007	—	64,449	$ 6	$ 252,733	$ —	$ (226,357)	$ 26,382
Exercise of options for common stock	—	7	—	9	—	—	9
Issuance of common stock for ESPP	—	84	—	72	—	—	72
Issuance of common stock and warrants to vendors	—	324	—	828	—	—	828
Compensation expense to non-employees on issuance of options and warrants to purchase common stock	—	—	—	180	—	—	180
Compensation expense on issuance of restricted stock	—	100	—	166	—	—	166
Stock-based compensation	—	326	—	3,656	—	—	3,656
Issuance of common stock for acquisition of Ercole	—	5,812	1	8,391	—	—	8,392
Comprehensive income (loss):							
Unrealized gain on short-term securities— available-for-sale, net	—	—	—	—	—	—	—
Net loss	—	—	—	—	—	(23,953)	(23,953)
Comprehensive loss							(23,953)

(in thousands)	Partnership Units	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Deficit Accumulated During the Development Stage	Total Shareholders' Equity (Deficit)
BALANCE AT DECEMBER 31, 2008	—	71,102	$ 7	$ 266,035	$ —	$ (250,310)	$ 15,732
Exercise of options for common stock	—	62	—	76	—	—	76
Issuance of common stock for ESPP	—	124	—	85	—	—	85
Issuance of common stock for cash and securities, net of offering costs	—	38,520	4	30,518	—	—	30,522
Compensation expense on issuance of restricted stock	—	427	—	203	—	—	203
Stock-based compensation	—	261	—	2,171	—	—	2,171
Comprehensive income (loss):							
Unrealized gain on short-term securities— available-for-sale, net	—	—	—	—	—	—	—
Net loss	—	—	—	—	—	(25,159)	(25,159)
Comprehensive loss							(25,159)
BALANCE AT DECEMBER 31, 2009	—	110,496	$ 11	$ 299,088	$ —	$ (275,469)	$ 23,630
Exercise of options for common stock	—	1,702	—	2,012	—	—	2,012
Exercise of warrants for common stock	—	308	—	549	—	—	549
Issuance of common stock for cash and securities, net of offering costs	—	—	—	—	—	—	—
Compensation expense on issuance or cancelation of restricted stock	—	(154)	—	64	—	—	64
Stock-based compensation	—	—	—	3,105	—	—	3,105
Comprehensive income (loss):							
Unrealized gain on short-term securities— available-for-sale, net	—	—	—	—	—	—	—
Net loss	—	—	—	—	—	(32,177)	(32,177)
Comprehensive loss							(32,177)
BALANCE AT DECEMBER 31, 2010	—	112,352	$ 11	$ 304,818	$ —	$ (307,646)	$ (2,817)

See accompanying notes to financial statements.

AVI BioPharma, Inc.
(A Development Stage Company)
Statements of Cash Flows

(in thousands)	Year ended December 31, 2010	2009	2008	For the Period July 22, 1980 (Inception) through December 31, 2010
Cash flows from operating activities:				
Net loss	$ (32,177)	$(25,159)	$(23,953)	$ (307,646)
Adjustments to reconcile net loss to net cash flows used in operating activities:				
Depreciation and amortization	1,463	1,379	1,469	19,145
Loss on disposal of assets	776	347	584	2,081
Realized gain on sale of short-term securities— available-for-sale	—	—	—	(3,863)
Write-down of short-term securities—available-for-sale	—	—	—	17,001
Impairment charge on real estate owned	408	128	800	1,336
Stock-based compensation	3,169	2,374	4,830	25,866
Conversion of interest accrued to common stock	—	—	—	8
Acquired in-process research and development	—	—	9,916	29,461
Increase (decrease) on warrant valuation	11,502	9,198	(3,161)	8,052
(Increase) decrease in:				
Accounts receivable and other current assets	(1,211)	2,621	(1,850)	(4,111)
Net increase in accounts payable, accrued employee compensation, and other liabilities	861	312	(975)	6,135
Net cash used in operating activities	(15,209)	(8,800)	(12,340)	(206,535)
Cash flows from investing activities:				
Purchase of property and equipment	(832)	(931)	(369)	(18,701)
Patent costs	(1,122)	(1,063)	(848)	(8,365)
Purchase of marketable securities	(7)	—	(11)	(112,993)
Sale of marketable securities	—	111	—	117,724
Acquisition costs	—	—	(11)	(2,389)
Net cash (used in) provided by investing activities	(1,961)	(1,883)	(1,239)	(24,724)
Cash flows from financing activities:				
Proceeds from sale of common stock, warrants, and partnership units, net of offering costs, and exercise of options and warrants	2,561	47,840	81	265,498
Repayments of long-term debt	(77)	(74)	(113)	(264)
Buyback of common stock pursuant to rescission offering	—	—	—	(289)
Withdrawal of partnership net assets	—	—	—	(177)
Issuance of convertible debt	—	—	—	80
Net cash provided by (used in) financing activities	2,484	47,766	(32)	264,848
Increase (decrease) in cash and cash equivalents	(14,686)	37,083	(13,611)	33,589
Cash and cash equivalents:				
Beginning of period	48,275	11,192	24,803	—
End of period	$ 33,589	$ 48,275	$ 11,192	$ 33,589
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:				
Cash paid during the year for interest	$ 94	$ 97	$ 104	$ 399
SUPPLEMENTAL SCHEDULE OF NONCASH INVESTING ACTIVITIES AND FINANCING ACTIVITIES:				
Short-term securities—available-for-sale received in connection with the private offering	$ —	$ —	$ —	$ 17,897
Change in unrealized gain (loss) on short-term securities—available-for-sale	—	—	—	—
Issuance of common stock and warrants in satisfaction of liabilities	—	—	—	545
Issuance of common stock for building purchase	—	—	—	750
Assumption of long-term debt for building purchase	—	—	—	2,200
Issuance of common stock for Ercole assets	—	—	8,075	8,075
Assumption of liabilities for Ercole assets	—	—	2,124	2,124

See accompanying notes to financial statements.

AVI BioPharma, Inc.
(A Development Stage Company)
NOTES TO FINANCIAL STATEMENTS

1. ORGANIZATION AND NATURE OF BUSINESS:

AVI BioPharma, Inc. (the "Company") is a biopharmaceutical company incorporated in the State of Oregon on July 22, 1980. The mission of the Company is to discover and develop unique RNA-based therapeutics for the treatment of both rare and infectious diseases.

AGDG

Through May 19, 1993, the financial statements included the combined accounts of the Company and Anti-Gene Development Group, a limited partnership founded in 1981 and registered in the State of Oregon ("AGDG"). Substantially all income generated and proceeds from the sale of AGDG partnership units through that date were paid to the Company under the terms of research and development contracts between AGDG and the Company. Significant transactions between the Company and AGDG through that date have been eliminated.

Pursuant to an exchange offer by the Company, each AGDG partner could elect to exchange each AGDG partnership unit held and warrant unit held by such partner for 1,100 shares of Company common stock and warrants to purchase 1,100 shares of Company common stock. As a result of such exchange offer, which was completed in May 1993, the Company issued 1,632,950 shares of its common stock and warrants to purchase 381,700 shares of its common stock. Effective May 19, 1993, the Company and AGDG entered into a technology transfer agreement pursuant to which AGDG conveyed all intellectual property then within its control to the Company. In connection with such conveyance, the Company tendered to AGDG for liquidation all partnership units received pursuant to the exchange offer described above and received a 49.4% undivided interest in the intellectual property. The Company then purchased the remaining undivided interest in the intellectual property in return for giving AGDG the right to receive 4.05% of gross revenues in excess of $200 million, from sales of products, which would, in the absence of the technology transfer agreement, infringe a valid claim under any patent transferred to the Company. The Company also granted to AGDG a royalty-bearing license to make, use and sell small quantities of product derived from the intellectual property for research purposes only.

In March 2000, the Company and AGDG amended the technology transfer agreement to give to AGDG and Gene Tools LLC, related organizations, exclusive, non royalty-bearing rights to in vitro diagnostic applications of the intellectual property. In consideration for this amendment, Gene Tools LLC paid the Company $1.0 million and the royalty rate that the Company is required to pay to AGDG under the technology transfer agreement on future sales of therapeutic products was reduced from 4.05% to 3.00%.

In May 1993, the remaining net assets of AGDG, consisting of $177,000 in cash, ceased to be combined with those of the Company. Pursuant to the technology transfer agreement, AGDG agreed to not sell any additional partnership units, ceased all income generating activities and will not enter into any other research and development contracts with the Company. AGDG currently exists primarily for the purpose of collecting potential future payments from the Company as called for in the technology transfer agreement.

Acquisition of Ercole

In March 2008, the Company acquired all of the stock of Ercole Biotechnology, Inc. ("Ercole") in exchange for 5,811,721 shares of Company common stock, which was valued at approximately $8.4 million, and the assumption of approximately $1.8 million in liabilities of Ercole. The Company also issued warrants to purchase Company common stock, which were valued at $437,000, in exchange for certain outstanding warrants issued by Ercole. These warrants are classified as equity. From 2006 to the time of the acquisition, the Company and Ercole had collaborated with respect to the development drug candidates, including AVI-4658. The total estimated purchase price of $10.2 million has been allocated as follows:

Accounts receivable	$ 76,000
Prepaid expenses	7,000
Fixed assets	10,000
Patents	190,000
Acquired in-process research and development	9,916,000

The pending patents acquired as part of the Ercole acquisition have an expected expiration date of 2028. Acquired in-process research and development consists of other discovery research programs in areas including beta thalassemia and soluble tumor necrosis factor receptor. As these programs were in development at the time of acquisition, there were significant risks associated with completing these projects, and there were no alternative future uses for these projects, the associated value has been considered acquired in-process research and development.

Ercole has been a development stage company since inception and does not have a product for sale. The Company has retained a limited number of Ercole employees and has incorporated in-process technology of Ercole into the Company's processes. The acquisition of Ercole did not meet the definition of a business and it was therefore accounted for as an asset acquisition.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP") and reflect the following significant accounting policies. Management has determined that the Company operates one segment: the development of pharmaceutical products on its own behalf or in collaboration with others.

Estimates and Uncertainties

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates. Significant items subject to such estimates and assumptions include the valuation of liability classified warrants and stock-based awards, long lived asset impairment, and revenue recognition.

Reclassifications

Certain prior year amounts have been reclassified to conform to current year presentation. These changes did not have a significant impact on the Company's net loss, assets, liabilities, shareholders' equity (deficit) or cash flows.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of 90 days or less from the date of purchase to be cash equivalents.

Accounts Receivable

Accounts receivable are stated at invoiced amount and do not bear interest as they are due within 12 months. Because a majority of accounts receivable are from the U.S. government and historically no amounts have been written off, an allowance for doubtful accounts receivable is not considered necessary. The accounts receivable balance included $3.2 million and $0.4 million of receivables that were unbilled at December 31, 2010 and 2009, respectively.

Amounts included in accounts receivable are as follows:

	As of December 31,	
	2010	2009
	(in thousands)	
Research contract	$3,224	$2,085
Total accounts receivable	$3,224	$2,085

Property and Equipment

Property and equipment is stated at cost and depreciated over the estimated useful lives of the assets, generally five years, using the straight-line method. Leasehold improvements are amortized over the shorter of the lease term and the estimated useful life of the asset, generally five years, using the straight-line method. Expenditures for repairs and maintenance are expensed as incurred. Expenditures that increase the useful life or value are capitalized. Expenditures made for equipment specifically utilized and paid for by government research projects are expensed.

Amounts included in property held for sale are as follows:

	As of December 31,	
	2010	2009
	(in thousands)	
Property held for sale	$1,965	$2,372

In 2009, the Company decided to outsource its large scale manufacturing activities and listed for sale the industrial property located in Corvallis, Oregon and recorded a $0.1 million impairment charge to reduce carrying value to fair value less estimated costs to sell. The Company recorded an additional impairment charge of $0.4 million in 2010 to reduce its carrying value to the current appraised value. The Company has used a Level 3 fair value measure with the use of an independent appraisal to estimate the value of this property.

Amounts included in property and equipment are as follows:

	As of December 31,	
	2010	2009
	(in thousands)	
Lab equipment	$ 6,207	$ 5,933
Office equipment	1,188	970
Leasehold improvements	9,638	9,589
	17,033	16,492
Less accumulated depreciation	(14,963)	(14,026)
Property and equipment, net	$ 2,070	$ 2,466

Depreciation expense of $1.2 million was expensed each year in 2010, 2009 and 2008.

Patent Costs

Patent costs consist primarily of legal and filing fees incurred to file patents on proprietary technology developed by the Company. Patent costs are amortized on a straight-line basis over the shorter of the estimated economic lives and the legal lives of the patents, generally 20 years. Patent amortization was $246,000, $225,000 and $257,000 for the years ended December 31, 2010, 2009 and 2008, respectively. The Company also expensed the remaining net book value of previously capitalized patents that were later abandoned of $766,000, $347,000 and $580,000, in 2010, 2009 and 2008, respectively. The Company expects to incur amortization expense of approximately $168,000 per year over the following five fiscal years.

Revenue Recognition

Government Research Contract Revenue. Substantially all of the Company's revenue was generated from U.S. government research contracts. See "Note 7—U.S. Government Contracts." The Company's contracts with the U. S. government are cost plus contracts providing for reimbursed costs and a target fee. The Company recognizes revenue from U.S. government research contracts during the period in which the related expenses are incurred and present such revenues and related expenses gross in the consolidated financial statements.

License Arrangements. License arrangements may consist of non-refundable upfront license fees, data transfer fees, research reimbursement payments, exclusive licensed rights to patented or patent pending compounds, technology access fees, various performance or sales milestones and future product royalty payments. Some of these arrangements are multiple element arrangements.

The Company defers recognition of non-refundable upfront fees if it has continuing performance obligations without which the technology, right, product or service conveyed in conjunction with the non-refundable fee has no utility to the licensee that is separate and independent of Company performance under the other elements of the arrangement. In addition, if the Company has continuing involvement through research and development services that are required because its know-how and expertise related to the technology is proprietary to the Company, or can only be performed by the Company, then such up-front fees are deferred and recognized over the period of continuing involvement.

Research and Development

Research and development expense consists of costs associated with research activities as well as costs associated with the Company's product development efforts, preclinical studies, and clinical trial and manufacturing costs.

Direct research and development expenses associated with the Company's programs include clinical trial site costs, clinical manufacturing costs, costs incurred for consultants and other outside services, such as data management and statistical analysis support, and materials and supplies used in support of the clinical programs. Indirect costs of the Company's clinical program include salaries, stock based compensation, and an allocation of the Company's facility costs.

Research and development expenses are expensed as incurred.

Stock Compensation

The Company issues stock-based compensation to certain employees, officers and directors. GAAP requires companies to account for stock options using the fair value method, which results in the recognition of compensation expense over the vesting period of the awards. See "Note 3 — Stock Compensation" for additional information.

Income Taxes

The Company follows the asset and liability method of accounting for income taxes. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered and settled. A valuation allowance is recorded to reduce the net deferred tax asset to zero because it is more likely than not that the net deferred tax asset will not be realized. The Company recognizes the effect of income tax positions only if those positions are more likely than not of being sustained upon an examination.

Fair Value of Financial Instruments

The Company measures at fair value certain financial assets and liabilities in accordance with a hierarchy of valuation techniques based on whether the inputs to those valuation techniques are observable or unobservable. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect the Company's market assumptions. There are three levels of inputs that may be used to measure fair-value:

- Level 1—quoted prices for identical instruments in active markets;
- Level 2—quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets; and
- Level 3—valuations derived from valuation techniques in which one or more significant value drivers are unobservable.

The Company's assets and liabilities measured at fair value on a recurring basis consisted of the following as of the date indicated:

	Fair Value Measurement as of December 31, 2010			
	Total	Level 1	Level 2	Level 3
		(in thousands)		
Cash equivalents	$33,589	$33,589	$ —	$ —
Total assets	$33,589	$33,589	$ —	$ —

	Fair Value Measurement as of December 31, 2009			
	Total	Level 1	Level 2	Level 3
		(in thousands)		
Cash equivalents	$48,275	$48,275	$ —	$ —
Total assets	$48,275	$48,275	$ —	$ —

	Fair Value Measurement as of December 31, 2010			
	Total	Level 1	Level 2	Level 3
		(in thousands)		
Warrants	$39,111	$ —	$ —	$39,111
Total liabilities	$39,111	$ —	$ —	$39,111

	Fair Value Measurement as of December 31, 2009			
	Total	Level 1	Level 2	Level 3
		(in thousands)		
Warrants	$27,609	$ —	$ —	$27,609
Total	$27,609	$ —	$ —	$27,609

A reconciliation of the change in value of the Company's warrants for the years ended December 31, 2010, 2009 and 2008 is as follows:

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)		
	2010	2009	2008
		(in thousands)	
Balance at January 1	$27,609	$ 1,254	$ 4,415
Total increase (decrease) in liability included in earnings	11,502	9,198	(3,161)
Issuances	—	17,157	—
Balance at December 31	$39,111	$27,609	$ 1,254

See "Note 9—Warrants" for additional information related to the determination of fair value of the warrants. The carrying amounts reported in the balance sheets for accounts receivable, accounts payable, and other current monetary assets and liabilities approximate fair value because of the immediate or short-term maturity of these financial instruments.

Rent Expense

The Company's operating leases for its Corvallis, Oregon and Bothell, Washington facilities provide for scheduled annual rent increases throughout each lease's term. In accordance with GAAP, the Company recognizes the effects of the scheduled rent increases on a straight-line basis over the full term of the leases, which expire in 2020 for the Corvallis, Oregon facility and in 2014 and 2012 for the Company's Bothell, Washington facilities.

During 2010, 2009 and 2008, the Company recognized $33,000, $230,000 and $133,000, respectively, in additional rent expense from the amortization of future scheduled rent increases.

Commitments and Contingencies

As of December 31, 2010, the Company was not a party to any material legal proceedings with respect to itself, its subsidiaries, or any of its material properties. In the normal course of business, the Company may from

time to time be named as a party to various legal claims, actions and complaints, including matters involving employment, intellectual property, effects from the use of therapeutics utilizing its technology, or others. It is impossible to predict with certainty whether any resulting liability would have a material adverse effect on the Company's financial position, results of operations or cash flows.

Long-Lived Asset Impairment

Long-lived assets held and used by the Company and intangible assets with determinable lives are reviewed for impairment whenever events or circumstances indicate that the carrying amount of assets may not be recoverable in accordance with GAAP pronouncements. The Company evaluates recoverability of assets to be held and used by comparing the carrying amount of an asset to future net undiscounted cash flows to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured as the amount by which the carrying amount of the assets exceeds the fair value of the assets. Such reviews assess the fair value of the assets based upon estimates of future cash flows that the assets are expected to generate.

At December 31, 2008, the Company determined that the ongoing decline in the real estate market had adversely impacted the fair value of an industrial property in Corvallis, Oregon, and an impairment charge of $0.8 million was recorded. The fair value estimate of $2.5 million was based on an independent third party appraisal. In November 2009, the Company decided to outsource its large scale manufacturing activities and listed for sale the industrial property in Corvallis and recorded a $0.1 million impairment charge to reduce carrying value to fair value less costs to sell. The Company recorded an additional impairment charge of $0.4 million in 2010 to reduce its carrying value to the current appraised value. The Company currently has this property listed for sale. The Company used a Level 3 fair value measure with the use of an independent appraisal to estimate the value of this property.

In addition, the Company conducts an evaluation of the status of its patents. Pursuant to these evaluations, the Company recorded charges of $766,000, $347,000 and $580,000 in 2010, 2009 and 2008, respectively, for previously capitalized costs related to patents that have expired or were abandoned.

Recent Accounting Pronouncements

In January 2010, the Financial Accounting Standards Board ("FASB"), issued guidance to amend the disclosure requirements related to recurring and nonrecurring fair value measurements. The guidance requires new disclosures on the transfers of assets and liabilities between Level 1 (quoted prices in active market for identical assets or liabilities) and Level 2 (significant other observable inputs) of the fair value measurement hierarchy, including the reasons and the timing of the transfers. The guidance became effective for the Company with the reporting period beginning January 1, 2010, except for the disclosure on the roll forward activities for Level 3 fair value measurements, which will become effective for the Company with the reporting period beginning July 1, 2011. Other than requiring additional disclosures, adoption of this new guidance did not have a material impact on the Company's financial statements.

In April 2010, the FASB issued guidance on applying the milestone method of revenue recognition for milestone payments for achieving specific performance measures when those payments are related to uncertain future events. The scope of this guidance is limited to transactions involving research or development. Under the guidance, the milestone method is a valid application of the proportional performance model for revenue recognition if the milestones are substantive and there is substantive uncertainty about whether the milestone will be achieved. The guidance is effective on a prospective basis to milestones achieved in fiscal years, and interim periods within those years, beginning January 1, 2011. The Company does not expect that this guidance will have a material impact on the Company's financial statements.

In January 2010, the FASB issued guidance to amend the disclosure requirements related to fair value measurements. The guidance requires the disclosure of roll forward activities on purchases, sales, issuance, and

settlements of the assets and liabilities measured using significant unobservable inputs (Level 3 fair value measurements). The guidance will become effective for the Company with the reporting period beginning July 1, 2011. Other than requiring additional disclosures, the Company does not believe the adoption of this new guidance will have a material impact on its financial statements.

3. STOCK COMPENSATION

Stock Options

The Company sponsors a 2002 Equity Incentive Plan (the "Plan") pursuant to which it may issue options to purchase its common stock to the Company's employees, directors and service providers. In general, stock options granted under the Plan prior to December 31, 2010 vest over a three year period, with one-third of the underlying shares vesting on each anniversary of grant, and have a ten year term. Beginning in January 2011, stock options granted under the Plan will vest over a four year period, with one-fourth of the underlying shares vesting on the first anniversary of the grant and 1/48th of the underlying shares vesting monthly thereafter, such that the underlying shares will be fully vested on the fourth anniversary of the grant. As of December 31, 2010, 1,771,426 shares of common stock remained available for future grant under the Plan. Additionally, on January 3, 2011, pursuant to the terms of the Plan, 2,247,049 additional shares of common stock were added to the Plan and became available for future grant.

A summary of the Company's stock option activity with respect to 2010, 2009 and 2008 follows:

	For the year ended December 31,					
	2010		2009		2008	
	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price
Options outstanding at beginning of year	8,932,811	$ 2.79	7,540,873	$ 3.34	6,304,453	$ 4.60
Granted	3,607,365	1.58	2,727,000	1.10	2,743,607	1.27
Exercised	(1,701,630)	1.18	(62,711)	1.68	(6,761)	1.31
Canceled or expired	(2,348,491)	4.42	(1,272,351)	2.72	(1,500,426)	4.82
Options outstanding at end of year	8,490,055	$ 2.14	8,932,811	$ 2.79	7,540,873	$ 3.34
Exercisable at end of year	3,919,519	$ 2.93	5,119,227	$ 3.94	4,779,603	$ 4.18
Vested at December 31, 2010 and expected to vest	8,302,857	$ 2.15				

	Aggregate Intrinsic Value	Weighted Average Remaining Contractual Life (Years)
Options outstanding at end of year	$ 4,352,864	7.03
Exercisable at end of year	$ 1,332,760	4.94
Vested at December 31, 2010 and expected to vest	$4,251,721	6.98

The weighted-average fair value per share of stock-based awards, including stock options and restricted stock grants, granted during the 2010, 2009 and 2008 was $1.11, $1.09 and $1.04, respectively. During the same periods, the total intrinsic value of stock options exercised was $976,000, $105,000 and $2,000, respectively. The total grant date fair value of stock options vested for 2010, 2009 and 2008 was $2,666,000, $1,740,000 and $3,040,000, respectively.

During 2010, 2009 and 2008, $2,011,000, $76,000 and $9,000, respectively, was received upon the exercise of stock options. The Company is obligated to issue shares from the Plan upon the exercise of stock options. The Company does not currently expect to repurchase shares from any source to satisfy its obligations under the Plan.

Valuation Assumptions

Stock-based compensation costs are based on the fair value calculated from the Black-Scholes option-pricing model on the date of grant for stock options. The fair value of stock grants is amortized as compensation expense on a straight-line basis over the vesting period of the grants. Stock options granted to employees are service-based and generally vest as described under "—Stock Options" above.

The fair values of stock options granted during the periods presented were measured on the date of grant using the Black-Scholes option-pricing model, with the following assumptions:

	Year Ended December 31,		
	2010	2009	2008
Risk-free interest rate	1.4% -3.8%	1.2% - 1.8%	1.1% - 3.4%
Expected dividend yield	— %	— %	— %
Expected lives	5.3 - 8.0 years	3.6 - 9.1 years	3.6 - 9.1 years
Expected volatility	82.5% - 90.3%	92.0% - 94.4%	81.0% - 90.7%

The risk-free interest rate is estimated using an average of treasury bill interest rates over a period commensurate with the expected term of the option that correlates to the prevailing interest rates at the time of grant. The expected dividend yield is zero as the Company has not paid any dividends to date and does not expect to pay dividends in the future. The expected lives are estimated using expected and historical exercise behavior. The expected volatility is estimated using historical calculated volatility of the Company's common stock over a period commensurate with the expected term of the option. The amounts estimated according to the Black-Scholes option pricing model may not be indicative of the actual values realized upon the exercise of these options by the holders.

The Company is required to estimate potential forfeiture of stock grants and adjust compensation cost recorded accordingly. The estimate of forfeitures is adjusted over the requisite service period to the extent that actual forfeitures differ, or are expected to differ, from such estimates. Changes in estimated forfeitures are recognized through a cumulative catch-up in the period of change and impact the amount of stock compensation expense to be recognized in future periods.

Restricted Stock Awards

In June 2010 and 2009, the Company granted a total of 20,000 and 25,000 shares of restricted stock, respectively to members of its board of directors. These shares vest on the first anniversary of the date of grant. During 2010 and 2009, the Company recognized compensation expense related to these shares of $26,000 and $17,000, respectively.

In May 2009, the Company granted 100,000 shares of restricted stock to its Chief Business Officer. These shares would have vested upon the achievement of certain performance milestones. No compensation expense related to these shares has been recognized in 2010 or 2009 as the achievement of the performance milestones was not accomplished and the restricted stock was cancelled.

In January 2009, the Company granted 60,000 shares of restricted stock to its Chief Medical Officer. These shares became fully vested 181 days after the date of grant. During 2010 and 2009, the Company recognized compensation expense related to these shares of $0 and $82,000, respectively.

In February 2008, the Company granted 333,000 shares of restricted stock to its former Chief Executive Officer, Leslie Hudson, Ph.D. Of these shares, 100,000 vested immediately and the remaining 233,000 were scheduled to vest over a period of four years. In April 2010, Dr. Hudson tendered his resignation at the request of the board of directors and pursuant to the terms of the related separation agreement, 116,500 shares of previously granted restricted stock immediately became fully vested and exercisable at the effective date of the separation agreement. During 2010, 2009 and 2008, the Company recognized compensation expense related to these shares of $134,000, $64,000 and $166,000, respectively.

	For the year ended December 31,					
	2010		2009		2008	
	Shares	Weighted Average Grant Date Fair Value	Shares	Weighted Average Grant Date Fair Value	Shares	Weighted Average Grant Date Fair Value
	(share data in thousands)					
Restricted stock awards at beginning of year	300	$ 1.09	233	$ 1.09	—	$ —
Granted	20	1.30	446	1.03	333	1.09
Vested	(200)	1.09	(379)	1.02	(100)	1.09
Forfeited or canceled	(100)	1.10	—	—	—	—
Restricted stock awards at end of year	20	$ 1.30	300	$ 1.09	233	$ 1.09

The weighted-average grant-date fair value of restricted stock awards is based on the market price of the Company's common stock on the date of grant. The grant-date fair value of the restricted stock awards made during 2010, 2009 and 2008 was $1.30, $1.03 and $1.09, respectively. The total grant-date fair values of restricted stock awards that vested during 2010, 2009 and 2008 were approximately $219,000, $385,000 and $109,000, respectively.

Stock-based Compensation Expense

The amount of stock-based compensation expense recognized in 2010, 2009 and 2008 related to stock-based compensation was $3,169,000, $2,374,000 and $4,830,000, respectively. A summary of the stock based compensation expense recognized in the statement of operations is as follows:

	Year Ended December 31,		
	2010	2009	2008
	(in thousands)		
Research and development	$ 970	$1,192	$1,689
General and administrative	2,199	1,182	3,141
Total	$3,169	$ 2,374	$ 4,830

As of December 31, 2010, there was $3,266,000 of total unrecognized compensation cost related to non-vested share-based compensation arrangements, including stock options and restricted stock, granted under the Plan. These costs are expected to be recognized over a weighted-average period of 1.8 years.

Pursuant to the terms of the separation agreement between the Company's former Chief Executive Officer and the Company, unvested options previously granted to Dr. Hudson to purchase 1,166,833 shares of common stock and 116,500 shares of restricted stock immediately became fully vested and exercisable at the effective date of the separation agreement. The Company recorded a charge of stock compensation expense of $1,181,000 as a result of the accelerated vesting of these shares in the second quarter of 2010.

In September 2008, the Company's President and Chief Operating Officer departed the Company. In accordance with his employment agreement, the vesting of all of the shares underlying options subject to time-based vesting was accelerated. This acceleration of the vesting of these stock options resulted in additional compensation costs of $382,000 for 2008. In March 2010, such options expired without being exercised.

4. EARNINGS PER SHARE

Basic net loss per share is computed by dividing net loss by the weighted-average number of common shares outstanding. Diluted net loss per share is computed by dividing net loss by the weighted-average number of common shares and dilutive common stock equivalent shares outstanding. Given that the Company was in a loss position for each of the periods presented, there is no difference between basic and diluted net loss per share since the effect of common stock equivalents would be anti-dilutive and are therefore excluded from the diluted net loss per share calculation.

	Year Ended December 31,		
	2010	2009	2008
		(in thousands)	
Net loss	$ (32,177)	$(25,159)	$(23,953)
Weighted average number of shares of common stock and common stock equivalents outstanding:			
Weighted average number of common shares outstanding for computing basic earnings per share	111,233	93,090	69,491
Dilutive effect of warrants and stock options after application of the treasury stock method	*	*	*
Weighted average number of common shares outstanding for computing diluted earnings per share	111,233	93,090	69,491
Net loss per share—basic and diluted	$ (0.29)	$ (0.27)	$ (0.34)

* Warrants and stock options to purchase approximately 38,155,000, 41,266,000 and 17,665,000 shares of common stock as of December 31, 2010, 2009 and 2008, respectively, were excluded from the net loss per share calculation as their effect would have been anti-dilutive.

5. LIQUIDITY

Since its inception in 1980 through December 31, 2010, the Company has incurred losses of approximately $307.6 million, substantially all of which resulted from expenditures related to research and development, general and administrative charges and acquired in-process research and development resulting from two acquisitions. The Company has not generated any material revenue from product sales to date, and there can be no assurance that revenues from product sales will be achieved. Moreover, even if the Company does achieve revenue from product sales, the Company expects to incur operating losses over the next several years.

The Company believes it has sufficient cash to fund operations at least through the next 12 months. The Company believes it will continue to receive funding from government to pursue the development of its product candidates, and has assumed certain revenues from these awards in providing this guidance. Should the Company not continue to receive funding from its current contracts or receive additional funding, or should the timing be delayed, it may have a significant negative impact on the Company's guidance.

At December 31, 2010, cash and cash equivalents were $33.6 million, compared to $48.3 million at December 31, 2009. The Company's principal sources of liquidity have been equity financings and revenue from its U.S. government research contracts. The Company's principal uses of cash have been research and development expenses, general and administrative expenses and other working capital requirements.

In the periods presented, substantially all of the revenue generated by the Company was derived from research contracts with the U.S. government. As of December 31, 2010, the Company had contracts with the U.S. government pursuant to which it is entitled to receive up to an aggregate of $157.1 million for development of its product candidates, of which $76.1 million had been billed or recognized as revenue and $81 million of which relates to development that has not yet been completed and has not been billed or recognized as revenue. See "Note 7—U.S. Government Contracts" for additional information.

In January and August 2009, the Company sold shares of its common stock and also issued warrants to purchase shares of its common stock in offerings registered under the Securities Act of 1933 (the "Securities Act"). See "Note 6 — Equity Financing" for more information.

The likelihood of the long-term success of the Company must be considered in light of the expenses, difficulties and delays frequently encountered in the development and commercialization of new pharmaceutical products, competitive factors in the marketplace as well as the complex regulatory environment in which the Company operates. There can be no assurance that the Company will ever achieve significant revenues or profitable operations.

6. EQUITY FINANCING

In January 2009, the Company sold approximately 14.2 million shares of its common stock and also issued warrants to purchase approximately 14.2 million shares of its common stock in an offering registered under the Securities Act. The offering generated net proceeds of approximately $15.5 million. The warrants issued to the investors in the offering have an exercise price of $1.16 per share and are exercisable at any time on or before July 30, 2014. In connection with the offering, the Company also issued to the placement agent a warrant to purchase approximately 427,000 shares of the Company's common stock at an exercise price of $1.45 per share. The warrant issued to the placement agent is exercisable on or before January 30, 2014.

In August 2009, the Company sold approximately 24.3 million shares of its common stock and also issued warrants to purchase approximately 9.7 million shares of its common stock in an offering registered under the Securities Act. The offering generated net proceeds of approximately $32.3 million. The warrants issued to the investors in the offering have an exercise price of $1.78 per share and are exercisable at any time on or before August 25, 2014.

The warrants issued in connection with the January and August 2009 offerings are classified as a liability due to their settlement terms. Accordingly, the fair value of the warrants is recorded on the consolidated balance sheet as a liability, and such fair value is adjusted at each financial reporting period with the adjustment to fair value reflected in the consolidated statement of operations as described in greater detail in "Note 9—Warrants." These warrants are non-cash liabilities; the Company is not required to expend any cash to settle these liabilities.

7. U.S. GOVERNMENT CONTRACTS

In the periods presented, substantially all of the revenue generated by the Company was derived from research contracts with the U.S. government. The Company's contracts with the U. S. government are cost plus contracts providing for reimbursed costs and a target fee. The Company recognizes revenues from U.S. government research contracts during the period in which the related expenditures are incurred and presents these revenues and related expenses gross in the consolidated financial statements. As of December 31, 2010, the Company had contracts with the U.S. government pursuant to which it is entitled to receive up to an aggregate of $157.1 million for development of its product candidates, of which $76.1 million had been billed or recognized as revenue and $81.0 million of which relates to development that has not yet been completed and has not been billed or recognized as revenue. The following is a description of such contracts.

January 2006 Agreements (Ebola and Marburg Host Factors, Dengue, Anthrax and Ricin)

In January 2006, the final version of the 2006 defense appropriations act was enacted, which act included an allocation of $11.0 million to fund the Company's ongoing defense-related programs under four different contracts, all of which were executed in 2007, and the last of which expired in October 2010. Net of government administrative costs, it was anticipated that the Company would receive up to $9.8 million under this allocation. As of December 31, 2010, the Company had recognized revenue of $9.7 million with respect to these contracts. The Company's technology is expected to be used to continue developing RNA-based drugs against Ebola and Marburg viruses.

November 2006 Agreement (Ebola, Marburg and Junín Viruses)

In November 2006, the Company entered into a two-year research contract with Defense Threat Reduction Agency ("DTRA"), an agency of the U.S. Department of Defense (the "DoD"), pursuant to which the Company was entitled to $28.0 million to fund its development of antisense therapeutics to treat the effects of Ebola, Marburg and Junín hemorrhagic fever viruses. In May 2009, this contract was amended to extend the term of the contract until November 2009 and to increase funding by $5.9 million to an aggregate of $33.9 million. In September 2009, the contract was amended again to extend the term of the contract to February 2011 and to increase funding by an additional $11.5 million to an aggregate of $45.4 million. In November 2010, the Company and DTRA agreed that the key activities under this contract had been completed and that further activities under this contract would cease and this contract would be deemed concluded. As of December 31, 2010, the Company had recognized revenue of $38.4 million with respect to this contract and does not expect significant further revenue.

May 2009 Agreement (H1N1/Influenza)

In May 2009, the Company entered into a contract with DTRA to develop swine flu drugs. Under this contract, DTRA will pay up to $4.1 million to the Company for the work involving the application of the Company's proprietary PMO and PMO *plus*™ antisense chemistry and the Company plans to conduct preclinical development of at least one drug candidate and demonstrate it is effective by testing it on animals. In March 2010, the contract was amended to include testing against additional influenza strains including H5N1 (avian flu), Tamiflu ®-resistant H1N1 (swine flu) and H3N2 (seasonal flu) and funding increased by $4.0 million to an aggregate of $8.1 million. As of December 31, 2010, the Company had recognized revenue of $6.9 million with respect to this contract.

June 2010 Agreement (H1N1/Influenza)

In June 2010, the Company entered into a contract with the DTRA to advance the development of AVI-7100, which was previously designated AVI-7367 and which has been renumbered by the Company, as a medical countermeasure against the pandemic H1N1 influenza virus in cooperation with the Transformational Medical Technologies program ("TMT") of the DoD. The contract provides for funding of up to $18.0 million to advance the development of AVI-7100, including studies enabling an Investigational New Drug ("IND") application with the U.S. Food and Drug Administration ("FDA"), the study of an intranasal delivery formulation, and the funding of the entry into a Phase I clinical trial to obtain human safety data to support potential use under an Emergency Use Authorization. As of December 31, 2010, the Company had recognized revenue of $8.8 million with respect to this contract.

July 2010 Agreement (Ebola and Marburg)

In July 2010, the Company was awarded a new contract with the DoD Chemical and Biological Defense Program through the U.S. Army Space and Missile Defense Command for the advanced development of the Company's hemorrhagic fever virus therapeutic candidates, AVI-6002 and AVI-6003, for Ebola and Marburg viruses, respectively. The contract is funded as part of the TMT program, which was established to develop innovative platform-based solutions countering biological threats. The contract is structured into four segments for each therapeutic candidate with potential funding of up to approximately $291 million. Activity under the first segment, which began in July 2010, provides for funding to the Company of up to approximately $80 million. Activities under the first segment include Phase I studies in healthy volunteers as well as preclinical studies, and are scheduled over an 18-month period.

After completion of the first segment, and each successive segment, TMT has the option to proceed to the next segment for either or both AVI-6002 and AVI-6003. If TMT exercises its options for all four segments, contract activities would include all clinical and licensure activities necessary to obtain FDA regulatory approval

of each therapeutic candidate and would provide for a total funding award to the Company of up to approximately $291 million over a period of approximately six years. Under an earlier contract, the Company completed development activities that culminated in the opening of IND applications for both AVI-6002 and AVI-6003. As of December 31, 2010, the Company had recognized revenue of $9.8 million with respect to the July 2010 Agreement.

The following table sets forth the impact on revenue of each of the contracts with the U.S. government on the Company's results of operations for the periods indicated.

	Year Ended December 31,		
	2010	2009	2008
		(in thousands)	
January 2006 Agreements (*Ebola and Marburg host factor, Dengue, Anthrax and Ricin*)	$ 519	$ 2,288	$ 4,251
November 2006 Agreement (*Ebola, Marburg and Junín Viruses*)	3,204	10,421	16,760
May 2009 Agreement (*H1N1*)	5,171	1,716	—
June 2010 Agreement (*H1N1*)	8,809	—	—
July 2010 Agreement (*Ebola and Marburg*)	9,822	—	—
Grants	1,622	725	53
Other Agreements	273	2,435	194
Total	$29,420	$17,585	$21,258

8. LONG-TERM DEBT

The Company has two loans outstanding which bear interest at 4.75%, mature in February 2027 and are collateralized by the facility the Company owns in Corvallis, Oregon. At December 31, 2010, these loans had unpaid principal balances of $1,225,000 and $699,000, for a total indebtedness of $1,923,000. The Company incurred interest expense on these loans of $94,000, $97,000 and $104,000, respectively, for 2010, 2009 and 2008.

The following table sets forth the expected future principal payments on these loans for the years shown (in thousands):

2011	$ 81
2012	85
2013	90
2014	92
2015	98
Thereafter	1,477
Total scheduled loan principal payments	1,923

9. WARRANTS

Warrants issued in connection with the Company's December 2007, January 2009, and August 2009 financings are classified as liabilities as opposed to equity due to their settlement terms. These warrants are non-cash liabilities; the Company is not required to expend any cash to settle these liabilities.

The fair value of these warrants was recorded on the balance sheet at issuance and the warrants are marked to market at each financial reporting period, with changes in the fair value recorded as a gain or loss in the statement of operations. The fair value of the warrants is determined using the Black-Scholes option pricing model, which requires the use of significant judgment and estimates for the inputs used in the model. The following reflects the weighted-average assumptions for each of the periods indicated:

	Year Ended December 31,		
	2010	2009	2008
Risk-free interest rate	0.6% -1.02%	0.2% - 2.69%	0.3% - 3.0%
Expected dividend yield	0%	0%	0%
Expected lives	2.0 - 3.7 years	0.4 - 4.7 years	0.2 - 4.2 years
Expected volatility	84.69% - 90.1%	86.0% - 102.1%	63.6% - 104.8%
Warrants classified as liabilities	29,409,546	30,203,466	7,994,229
Warrants classified as equity	255,895	2,129,530	2,129,530
Market value of stock at beginning of year	$ 1.46	$ 0.66	$ 1.41
Market value of stock at end of year	$ 2.12	$ 1.46	$ 0.66

The risk-free interest rate is estimated using an average of Treasury bill interest rates that correlate to the prevailing interest rates at the time of valuation date. The expected dividend yield is zero as the Company has not paid any dividends to date and does not expect to pay dividends in the future. The expected lives are based on the remaining contractual lives of the related warrants at the valuation date. The expected volatility is estimated using historical volatility of the Company's common stock, over a period commensurate with the remaining contractual lives, taking into account factors such as future events or circumstances that could impact volatility. The amounts estimated according to the Black-Scholes option pricing model may not be indicative of the actual values realized upon the exercise of these warrants by the holders.

All other warrants issued by the Company other than the warrants issued in connection with its December 2007, January 2009 and August 2009 financings are classified as permanent equity; the fair value of the warrants was recorded as additional paid-in capital and no further adjustments are made. For 2010, 2009 and 2008, 255,895 shares, 2,129,530 shares and 2,129,530 shares, respectively, were underlying such warrants.

A summary of the Company's warrant activity with respect to 2010, 2009 and 2008 is as follows:

	For the year ended December 31,					
	2010		2009		2008	
	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price
Warrants outstanding at beginning of year	32,332,996	$ 3.40	10,123,759	$ 8.54	13,856,411	$ 8.12
Granted	—	—	24,369,238	1.41	445,985	1.77
Exercised	(308,000)	1.78	—	—	—	—
Expired	(2,359,555)	26.50	(2,160,001)	5.00	(4,178,637)	6.42
Warrants outstanding at end of year	29,665,441	$ 1.58	32,332,996	$ 3.40	10,123,759	$ 8.54
Exercisable at end of year	29,665,441	$ 1.58	20,948,808	$ 1.60	8,457,881	$ 3.21

The following table summarizes information about warrants outstanding at December 31, 2010.

Exercise Price	Outstanding Warrants at December 31, 2010	Weighted Average Remaining Contractual Life (Years)	Exercisable Warrants
$0.0003	16,667	No expiration date	16,667
0.1679	238,228	1.87	238,228
1.14	1,000	No expiration date	1,000
1.16	14,224,202	3.58	14,224,202
1.45	426,726	3.08	426,726
1.78	9,410,310	3.67	9,410,310
2.45	5,348,308	1.97	5,348,308
	29,665,441		29,665,441

10. SIGNIFICANT AGREEMENTS:

Eleos Agreement

In January 2007, the Company entered into a cross-license agreement with Eleos Inc. ("Eleos") for the development of antisense drugs targeting p53, a well-studied human protein that controls cellular response to genetic damage. Under the terms of the agreement, the Company granted Eleos an exclusive license to certain of the Company's intellectual property related to treatment of cancer with p53-related drugs. In return, Eleos granted an exclusive license to its intellectual property to the Company for treatment of most viral diseases with drugs that target p53. The companies are sharing rights under their respective intellectual property rights licensed under the agreement in other medical fields where targeting p53 may be therapeutically useful. Each company will make milestone payments and royalty payments to the other on development and sales of products that utilize technology licensed under the agreement. In addition, Eleos made an upfront payment of $500,000 to the Company. The Company recognized $125,000 in license fees for each of 2010, 2009 and 2008.

Charley's Fund Agreement

In October 2007, Charley's Fund, Inc. ("Charley's Fund"), a nonprofit organization that funds drug development and discovery initiatives specific to DMD, awarded the Company a $2.45 million research grant. Pursuant to the related sponsored research agreement, the grant would support the development of product candidates using the Company's proprietary exon skipping technologies to overcome the effects of certain genetic errors in the dystrophin gene. The sponsored research agreement was amended in May 2009. Under the terms of the May 2009 amendment, subject to the satisfaction of certain milestones, Charley's Fund agreed that it would pay up to an additional $3.0 million over and above the $2.0 million it had already paid to the Company at the time of the execution of the amendment. As of December 31, 2010, Charley's Fund has made an aggregate of $3.3 million in payments to the Company. Revenue associated with this research and development arrangement is recognized based on proportional performance method, using the payment received method. The Company recognized $0, $0 and $23,000 in revenue from Charley's Fund for the years ended December 31, 2010, 2009 and 2008, respectively.

Agreements with Former Employees

In September 2008, the Company's President and Chief Operating Officer resigned. In accordance with his employment agreement, he was entitled to receive severance payments totaling $630,000, of which, one-third ($210,000) was paid on the effective date of his termination, and the remaining $420,000 was paid in monthly installments of $35,000 over the following 12 months. The Company recognized compensation expense of $630,000 in 2008 pursuant to his resignation, of which $280,000 was classified as a deferred liability as of December 31, 2008. In 2009 the Company recognized $315,000 of compensation expense. In addition, in accordance with such employment agreement, the vesting of all of the shares underlying options subject to time-

based vesting was accelerated. This acceleration of the vesting of these stock options resulted in additional compensation costs of approximately $382,000 for 2008. In March 2010, such options expired without being exercised.

In April 2010, Dr. Hudson tendered his resignation at the request of the board of directors. Pursuant to the terms of his separation agreement, Dr. Hudson was entitled to receive severance payments totaling $1,412,170 (comprised of two times the sum of (1) his annual base salary in effect as of the separation date ($494,400), (2) the average of his last two annual bonuses ($188,669), and (3) the annual cost of Pfizer retiree healthcare coverage for him and his spouse ($23,000). The cash severance payments are paid to Dr. Hudson in 24 equal monthly installments, less required deductions and withholdings following the effective date of the separation agreement. The Company paid severance payments totaling $473,226 in 2010 pursuant to his resignation, and $910,759 was classified as accrued employee compensation as of December 31, 2010. In addition, 116,500 shares of previously granted restricted stock immediately became fully vested at the effective date of the separation agreement. Finally, unvested options previously granted to Dr. Hudson to purchase 1,166,833 shares of common stock immediately became fully vested and exercisable at the effective date of the separation agreement. The Company recorded a charge of stock compensation expense of $1,181,000 as a result of the accelerated vesting of these shares in the second quarter of 2010.

Real Property Leases

The Company's corporate headquarters are located in Bothell, Washington. The Bothell facility consists of office and laboratory space. The Company also leases additional laboratory and office space in Corvallis, Oregon as set forth below. The Company previously acquired 34,000 square feet of space in Corvallis, Oregon with the intention of providing future expansion space for the manufacture of potential products and components. This property was listed for sale in September 2009. The Company believes that its current facilities are suitable and have sufficient capacity to meet the projected needs of its business for the next 12 months or that additional space is readily available. The following table lists the locations, expiration dates and the square footage of the Company's principal leased properties as of December 31, 2010:

Location of Property	Square Footage	Lease Expiration Date
Bothell, Washington	19,108	November 2014
Bothell, Washington	8,398	December 2012
Corvallis, Oregon	53,000	December 2020

Although the term of the lease for the Bothell, Washington facility ends in November 2014, the Company has a one-time option to terminate the lease at the third anniversary upon payment of a termination fee of $266,000. The Company commenced paying base rent of approximately $43,000 per month in December 2009 and will begin paying base rent of approximately $11,000 per month in May 2011 on its second Bothell facility. The amount of base rent is subject to an annual increase of approximately 3% at each Bothell facility. Monthly rent at the Corvallis, Oregon facility is approximately $71,000 per month and is subject to an annual increase of 3%.

11. INCOME TAXES

As of December 31, 2010, the Company had federal and state net operating loss carryforwards of approximately $202,404,000 and $219,843,000, respectively, available to reduce future taxable income, which expire 2011 through 2028. Of these amounts, approximately $2,007,000 and $2,046,000, respectively, relate to federal and state net operating losses assumed as part of the Ercole acquisition. Utilization of the Ercole net operating losses is limited to approximately $425,000 per year. In addition, Section 382 of the Internal Revenue Code and similar state laws could limit the future use of the remaining net operating losses based on ownership changes and the value of the Company's stock. Approximately $4,934,000 of the Company's carryforwards were generated as a result of deductions related to exercises of stock options. When utilized, this portion of the Company's carryforwards, as tax affected, will be accounted for as a direct increase to contributed capital rather

than as a reduction of the year's provision for income taxes. The principal differences between net operating loss carryforwards for tax purposes and the accumulated deficit result from timing differences related to depreciation, amortization, treatment of research and development costs, limitations on the length of time that net operating losses may be carried forward, and differences in the recognition of stock-based compensation. The difference between the expected benefit computed using the statutory tax rate and the recorded benefit of zero is primarily due to the change in the valuation allowance.

The Company had net deferred tax assets of $108,702,000 and $103,308,000 at December 31, 2010 and 2009, respectively, primarily from U.S. federal and state net operating loss carryforwards, U.S. federal and state research and development credit carryforwards, share based compensation expense and intangibles. A valuation allowance was recorded to reduce the net deferred tax asset to zero because it is more likely than not that the deferred tax asset will not be realized. The estimate for the 2009 net operating loss carryforward was modified to align the estimated 2009 net operating loss carryforward with the actual information filed on the 2009 federal tax return. The net change in the valuation allowance for deferred tax assets was an increase of approximately $5,394,000 for the year ended December 31, 2010 and an increase of approximately $427,000, for the year ended December 31, 2009, mainly due to the increase in the net operating loss carryforwards and research and development tax credits.

Disclosures of the components of deferred tax assets and liabilities, and valuation allowance necessary to reduce deferred tax assets to an amount that is more likely than not to be realized in the future, differ from those presented in the financial statements and related footnotes contained in the Company's 2009 Annual Report on Form 10-K. Such changes reflect a decrease to the tax-effected net operating loss carryforward and valuation allowance of $7.2 million, from the previously reported amounts of $83,057,000 and $110,539,000, respectively. Such changes did not impact the Company's previously reported net deferred tax assets of $0 as of December 31, 2009.

Deferred tax assets assumed as part of the Ercole acquisition total approximately $1,407,000 and primarily relate to accrual to cash adjustment, net operating losses, and research and development credits. A valuation allowance was recorded to reduce the net deferred tax assets to zero because it is more likely than not that the deferred tax asset will not be realized.

The Company's policy is to recognize interest and/or penalties related to income tax matters in income tax expense. The Company had no accrual for interest or penalties on its balance sheet at December 31, 2010 or December 31, 2009, and has not recognized interest and/or penalties in the statement of operations for 2010, 2009 or 2008. The Company has not recognized any liability for unrecognized tax benefits. There are no unrecognized tax benefits included in the balance sheet that would, if recognized, affect the effective tax rate.

An analysis of the deferred tax assets (liabilities) is as follows:

	December 31,	
	2010	2009
	(in thousands)	
Net operating loss carryforwards	$ 79,813	$ 75,826
Difference in depreciation and amortization	2,882	2,544
Capital loss carryforward	8	8
Research and development tax credits	19,739	18,436
Stock compensation	3,038	4,197
Stock options for consulting services	1,126	1,012
Deferred Rent	430	378
Deferred Revenue	1,288	805
Other	378	102
	108,702	103,308
Valuation allowance	(108,702)	(103,308)
	$ —	$ —

12. COMMITMENTS AND CONTINGENCIES

Lease Obligations

The Company leases office and laboratory facilities under various noncancelable operating leases through December 2020. Rent expense under these leases was $1,821,000, $1,467,000 and $1,429,000 for 2010, 2009 and 2008, respectively, and $14,658,000 for the period from July 22, 1980 (inception) through December 31, 2010. See “Note 10—Significant Agreements—Real Property Leases” for more information.

At December 31, 2010, the aggregate non-cancelable future minimum payments under leases were as follows:

	Year ending December 31, (in thousands)
2011	$ 2,403
2012	2,405
2013	2,036
2014	2,033
2015	1,413
Thereafter	7,899
Total minimum lease payments	$ 18,189

Royalty Obligations

The Company has license agreements for which it is obligated to pay the licensors a minimum annual royalty. Royalty payments under these agreements were $100,000, $75,000 and $75,000 for 2010, 2009 and 2008, respectively, and $1,359,000 for the period from July 22, 1980 (inception) through December 31, 2010.

At December 31, 2010, the aggregate future minimum royalty payments under these agreements were as follows:

	Year ending December 31, (in thousands)
2011	$ 100
2012	80
2013	80
2014	80
2015	155
Thereafter	775
Total minimum royalty payments	$ 1,270

Litigation

As of December 31, 2010, the Company was not a party to any material legal proceedings with respect to itself, its subsidiaries, or any of its material properties. In the normal course of business, the Company may from time to time be named as a party to various legal claims, actions and complaints, including matters involving employment, intellectual property, effects from the use of therapeutics utilizing its technology, or others. It is impossible to predict with certainty whether any resulting liability would have a material adverse effect on the Company’s financial position, results of operations or cash flows.

13. FINANCIAL INFORMATION BY QUARTER (UNAUDITED)

	2010 for Quarter Ended			
	December 31	September 30	June 30	March 31
	(in thousands)			
Revenues from license fees, grants and research contracts	$ 15,516	$ 8,702	$ 3,997	$ 1,205
Operating expenses:				
Research and development	13,886	9,059	6,931	6,096
General and administrative	3,365	3,440	4,733	2,844
Operating loss	(1,735)	(3,797)	(7,667)	(7,735)
Other income (loss):				
Interest (expense) income, and other, net	84	82	51	42
(Increase) decrease on warrant liability	(5,993)	(3,578)	(9,040)	7,109
Net income (loss)	$ (7,644)	$ (7,293)	$(16,656)	$ (584)
Net income (loss) per share—basic	$ (0.07)	$ (0.07)	$ (0.15)	$ (0.01)
Net income (loss) per share—diluted	$ (0.07)	$ (0.07)	$ (0.15)	$ (0.01)
Shares used in per share calculations—basic	112,328	111,767	110,383	110,429
Shares used in per share calculations—diluted	112,328	111,767	110,383	110,429

	2009 for Quarter Ended			
	December 31	September 30	June 30	March 31
	(in thousands)			
Revenues from license fees, grants and research contracts	$ 5,141	$ 6,349	$ 2,945	$ 3,150
Operating expenses:				
Research and development	6,624	7,473	5,804	4,495
General and administrative	2,470	1,800	2,206	2,220
Operating loss	(3,953)	(2,924)	(5,065)	(3,565)
Other income (loss):				
Interest (expense) income, and other, net	(312)	(127)	(31)	16
(Increase) decrease on warrant liability	7,791	(5,039)	(14,572)	2,622
Net income (loss)	$ 3,526	$ (8,090)	$(19,668)	$ (927)
Net income (loss) per share—basic	$ 0.03	$ (0.08)	$ (0.23)	$ (0.01)
Net income (loss) per share—diluted	$ 0.03	$ (0.08)	$ (0.23)	$ (0.01)
Shares used in per share calculations—basic	110,266	95,261	85,664	80,759
Shares used in per share calculations—diluted	125,647	95,261	85,664	80,759

14. SUBSEQUENT EVENTS:

On December 13, 2010, the Company's board of directors appointed Christopher Garabedian, member of the board of directors, as the president and chief executive officer of the Company, effective January 1, 2011. Mr. Garabedian succeeded J. David Boyle II, the Company's senior vice president and chief financial officer, who served as the interim president and chief executive officer of the Company from April 20, 2010.

Pursuant to the offer letter, dated as of December 12, 2010, by and between the Company and Mr. Garabedian, he is entitled to a base annual salary of $490,000 and is eligible to receive an annual bonus of up to 50% of his annual base salary, or $245,000, upon achievement of performance objectives determined by the

board of directors or its delegate. The maximum annual bonus Mr. Garabedian will be eligible to receive is up to 75% of his annual base salary, or $367,500. Mr. Garabedian also received an initial sign-on bonus of $130,000, which must be repaid if he terminates his employment with the Company for any reason on or before January 1, 2012.

In accordance with the offer letter and the terms of the Company's 2002 Equity Incentive Plan, Mr. Garabedian was granted an option to purchase 1,900,000 shares of the Company's common stock. One-fourth of the shares underlying Mr. Garabedian's option will vest on January 1, 2012 and 1/48 th of the shares underlying Mr. Garabedian's option will vest on each monthly anniversary of the commencement of his employment thereafter.

Mr. Garabedian will be reimbursed for documented relocation expenses (not to exceed $120,000) and corporate housing expenses (up to $4,500 per month for six months), all of which must be repaid if Mr. Garabedian terminates his employment with the Company for any reason on or before January 1, 2012.

The offer letter also specifies that if Mr. Garabedian's employment is terminated for reasons other than "cause," death or disability, then, subject to execution of a release of claims in the form provided by the Company, he will be entitled to continued payments of his base salary for 12 months from the date of termination, accelerated vesting on 50% of his unvested equity awards and an extension of the post-termination exercise period on his outstanding options to 180 days following the date of termination.

Effective January 10, 2011, Effie Toshav was appointed senior vice president and general counsel of the Company. Ms. Toshav was granted an option to purchase 650,000 shares of the Company's common stock at a strike price of $2.58 per share. One-fourth of the shares underlying Ms. Toshav's option will vest on January 10, 2012, and 1/48 th of the shares underlying Ms. Toshav's option will vest on each monthly anniversary of the commencement of her employment thereafter.

Exhibit 3.4

FIRST RESTATED BYLAWS
OF
AVI BIOPHARMA, INC.

(As Amended on November 16, 2010)

ARTICLE I

OFFICES

1.1 Principal Office. The principal office of the corporation shall be located at One SW Columbia, Suite 1105, Portland, Oregon 97258. The corporation may have such other offices as the Board of Directors may designate or as the business of the corporation may from time to time require.

1.2 Registered Office. The registered office of the corporation required by the Oregon Business Corporation Act to be maintained in the State of Oregon may be, but need not be, identical with the principal office in the State of Oregon, and the address of the registered office may be changed from time to time by the Board of Directors.

ARTICLE II

SHAREHOLDERS

2.1 Annual Meeting. The annual meeting of the shareholders shall be held on a date and time as determined by the Board of Directors in their sole discretion. The failure to hold an annual meeting at the time stated herein shall not affect the validity of any corporate action.

2.2 Special Meetings. Special meetings of the shareholders may be called by the President or by the Board of Directors and shall be called by the President (or in the event of absence, incapacity, or refusal of the President, by the Secretary or any other officer) at the request of the holders of not less than one-tenth of all the outstanding shares of the corporation entitled to vote at the meeting. The requesting shareholders shall sign, date, and deliver to the Secretary a written demand describing the purpose or purposes for holding the special meeting.

2.3 Place of Meetings. Meetings of the shareholders shall be held at the principal business office of the corporation or at such other place, within or without the State of Oregon, as may be determined by the Board of Directors.

2.4 Notice of Meetings. Written notice stating the date, time, and place of the meeting and, in the case of a special meeting, the purpose or purposes for which the meeting is called shall be mailed to each shareholder entitled to vote at the meeting at the shareholder's address shown in the corporation's current record of shareholders, with postage thereon prepaid, not less than 10 nor more than 60 days before the date of the meeting.

2.5 Waiver of Notice. A shareholder may at any time waive any notice required by law, the Articles of Incorporation, or these Bylaws. The waiver must be in writing, be signed by the shareholder entitled to the notice, and be delivered to the corporation for inclusion in the minutes for filing with the corporate records. A shareholder's attendance at a meeting waives objection to lack of notice or defective notice of the meeting, unless the shareholder at the beginning of the meeting objects to holding the meeting or transacting business at the meeting. The shareholder's attendance also waives objection to consideration of a particular matter at the meeting that is not within the purpose or purposes described in the meeting notice, unless the shareholder objects to considering the matter when it is presented.

2.6 Record Date.

(a) For the purpose of determining shareholders entitled to notice of a shareholders' meeting, to demand a special meeting, or to vote or to take any other action, the Board of Directors may fix a future date as the record date for any such determination of shareholders, such date in any case to be not more than 70 days before the meeting or action requiring a determination of shareholders. The record date shall be the same for all voting groups.

(b) A determination of shareholders entitled to notice of or to vote at a shareholders' meeting is effective for any adjournment of the meeting unless the Board of Directors fixes a new record date, which it must do if the meeting is adjourned to a date more than 120 days after the date fixed for the original meeting.

(c) If a court orders a meeting adjourned to a date more than 120 days after the date fixed for the original meeting, it may provide that the original record date continue in effect or it may fix a new record date.

2.7 Shareholders' List for Meeting. After the record date for a shareholders' meeting is fixed by the Board of Directors, the Secretary of the corporation shall prepare an alphabetical list of the names of all its shareholders entitled to notice of the shareholders' meeting. The list must be arranged by voting group and within each voting group by class or series of shares and show the address of and number of shares held by each shareholder. The shareholders' list must be available for inspection by any shareholder, beginning two business days after notice of the meeting is given for which the list was prepared and continuing through the meeting, at the corporation's principal office or at a place identified in the meeting notice in the city where the meeting will be held. The corporation shall make the shareholders' list available at the meeting, and any shareholder or the shareholder's agent or attorney is entitled to inspect the list at any time during the meeting or any adjournment. Refusal or failure to prepare or make available the shareholders' list does not affect the validity of action taken at the meeting.

2.8 Quorum; Adjournment. Shares entitled to vote as a separate voting group may take action on a matter at a meeting only if a quorum of those shares exists with respect to that matter. A majority of the votes entitled to be cast on the matter by the voting group constitutes a quorum of that voting group for action in that matter. A majority of shares represented at the meeting, although less than a quorum, may adjourn the meeting from time to time to a different time and place without further notice to any shareholder of any adjournment. At such adjourned meeting at which a quorum

is present, any business may be transacted that might have been transacted at the meeting originally held. Once a share is represented for any purpose at a meeting, it shall be deemed present for quorum purposes for the remainder of the meeting and for any adjournment of that meeting, unless a new record date is set for the adjourned meeting.

2.9 Voting Requirements; Action Without Meeting. Unless otherwise provided in the Articles of Incorporation, each outstanding share entitled to vote shall be entitled to one vote upon each matter submitted to a vote at a meeting of shareholders. If a quorum exists, action on a matter, other than the election of directors, is approved if the votes cast by the shares entitled to vote favoring the action exceed the votes cast opposing the action, unless a greater number of affirmative votes is required by law or the Articles of Incorporation. If a quorum exists, directors are elected by a plurality of the votes cast by the shares entitled to vote unless otherwise provided in the Articles of Incorporation. No cumulative voting for directors shall be permitted unless the Articles of Incorporation so provide. Action required or permitted by law to be taken at a shareholders' meeting may be taken without a meeting if the action is taken by all the shareholders entitled to vote on the action. The action must be evidenced by one or more written consents describing the action taken, signed by all the shareholders entitled to vote on the action and delivered to the corporation for inclusion in the minutes for filing with the corporate records. Action taken under this section is effective when the last shareholder signs the consent, unless the consent specifies an earlier or later effective date. If the law requires that notice of proposed action be given to nonvoting shareholders and the action is to be taken by unanimous consent of the voting shareholders, the corporation must give its nonvoting shareholders written notice of the proposed action at least 10 days before the action is taken. The notice must contain or be accompanied by the same material that, under the Oregon Business Corporation Act, would have been required to be sent to nonvoting shareholders in a notice of meeting at which the proposed action would have been submitted to the shareholders for action.

2.10 Proxies.

(a) A shareholder may vote shares in person or by proxy by signing an appointment, either personally or by the shareholder's attorney-in-fact. An appointment of a proxy shall be effective when received by the Secretary or other officer of the corporation authorized to tabulate votes. An appointment is valid for 11 months unless a longer period is provided in the appointment form. An appointment is revocable by the shareholder unless the appointment form conspicuously states that it is irrevocable and the appointment is coupled with an interest that has not been extinguished.

(b) The death or incapacity of a shareholder appointing a proxy shall not affect the right of the corporation to accept the proxy's authority unless notice of the death or incapacity is received by the Secretary or other officer authorized to tabulate votes before the proxy exercises the proxy's authority under the appointment.

2.11 Corporation's Acceptance of Votes.

(a) If the name signed on a vote, consent, waiver, or proxy appointment corresponds to the name of a shareholder, the corporation, if acting in good faith, is entitled to accept the vote, consent, waiver, or proxy appointment and give it effect as the act of the shareholder.

(b) If the name signed on a vote, consent, waiver, or proxy appointment does not correspond to the name of a shareholder, the corporation, if acting in good faith, is nevertheless entitled to accept the vote, consent, waiver, or proxy appointment and give it effect as the act of the shareholder if:

(i) The shareholder is an entity and the name signed purports to be that of an officer or agent of the entity;

(ii) The name signed purports to be that of an administrator, executor, guardian, or conservator representing the shareholder and, if the corporation requests, evidence of fiduciary status acceptable to the corporation has been presented with respect to the vote, consent, waiver, or proxy appointment;

(iii) The name signed purports to be that of a receiver or trustee in bankruptcy of the shareholder and, if the corporation requests, evidence of this status acceptable to the corporation has been presented with respect to the vote, consent, waiver, or proxy appointment;

(iv) The name signed purports to be that of a pledgee, beneficial owner, or attorney-in-fact of the shareholder and, if the corporation requests, evidence acceptable to the corporation of the signatory's authority to sign for the shareholder has been presented with respect to the vote, consent, waiver, or proxy appointment; or

(v) Two or more persons are the shareholder as co-tenants or fiduciaries and the name signed purports to be the name of at least one of the co-owners and the person signing appears t6 be acting on behalf of all co-owners.

(c) The corporation is entitled to reject a vote, consent, waiver, or proxy appointment if the Secretary or other officer or agent authorized to tabulate votes, acting in good faith, has reasonable basis for doubt about the validity of the signature on it or about the signatory's authority to sign for the shareholder.

(d) The shares of the corporation are not entitled to vote if they are owned, directly or indirectly, by another corporation, and the corporation owns, directly or indirectly, a majority of the shares entitled to vote for directors of the other corporation; provided, however, the corporation may vote any shares, including the corporation's shares, held by it in a fiduciary capacity.

(e) The corporation and its officer or agent who accepts or rejects a vote, consent, waiver, or proxy appointment in good faith and in accordance with the standards of this provision shall not be liable in damages to the shareholder for the consequences of the acceptance or rejection. Corporate action based on the acceptance or rejection of a vote, consent, waiver, or proxy

appointment under this provision is valid unless a court of competent jurisdiction determines otherwise.

2.12 Advance Notice of Shareholder Proposals and Director Nominations .

(a) Shareholders may nominate one or more persons for election as directors at the annual meeting of shareholders or propose business to be brought before the annual meeting of shareholders, or both, only if (i) such business is a proper matter for shareholder action under the Oregon Business Corporation Act and (ii) the shareholder has given timely notice in proper written form of such shareholder's intent to make such nomination or nominations or to propose such business.

(b) Effective for all annual meetings held on or after June 1, 2008, to be timely, a shareholder's notice relating to the annual meeting shall be delivered to the Secretary at the principal executive offices of the Corporation not less than 90 nor more than 120 days prior to the first anniversary (the "Anniversary") of the date on which the Corporation first mailed its proxy materials for the preceding year's annual meeting of shareholders. However, if the date of the annual meeting is advanced by more than 30 days prior to or delayed by more than 30 days after the Anniversary of the preceding year's annual meeting, then notice by the shareholder to be timely must be delivered to the Secretary at the principal executive offices of the Corporation not later than the close of business on the later of (i) the 90th day prior to such annual meeting or (ii) the 15th day following the day on which public announcement of the date of such meeting is first made. For purposes of this Section 2.12, a "public announcement" means an announcement in a press release reported by the Dow Jones News Service, Associated Press, or comparable national news service or in a document filed by the Corporation with the Securities and Exchange Commission pursuant to the Securities Exchange Act of 1934, as amended (the "Exchange Act").

(c) To be in proper form a shareholder's notice to the Secretary shall be in writing and shall set forth (i) the name and address of the shareholder who intends to make the nomination(s) or propose the business, (ii) a representation that the shareholder is a holder of record of stock of the Corporation, that the shareholder intends to vote such stock at such meeting and, in the case of nomination of a director or directors, intends to appear in person or by proxy at the meeting to nominate the person or persons specified in the notice or to submit the business specified in the notice, (iii) in the case of nomination of a director or directors, the name and address of such nominee or nominees and a description of all arrangements or understandings between the shareholder and each nominee or any other person or persons (naming such person or persons) pursuant to which the nomination or nominations are to be made by the shareholder, (iv) a brief description of the business desired to be submitted at the meeting and the reasons for proposing such business at the meeting, (v) such other information regarding each nominee or each matter of business to be proposed by such shareholder as would be required to be included in a proxy statement filed pursuant to Regulation 14A promulgated by the Securities and Exchange Commission pursuant to the Exchange Act, had the nominee been nominated, or intended to be nominated, or the matter been proposed, or intended to be proposed, by the Board of Directors of the Corporation, (vi) in the case of nomination of a director or directors, the consent of each nominee to serve as a director of the Corporation if so elected, and (vii) such other information reasonably requested by the Corporation.

(d) The Chairman of a meeting of shareholders may refuse to acknowledge the nomination of any person or the proposal of any business not made in compliance with the foregoing procedures.

(e) Notwithstanding the foregoing provisions of this Section 2.12, a shareholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder with respect to matters set forth in this Section 2.12. Nothing in this Section 2.12 shall affect any rights of shareholders to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act nor grant any shareholder a right to have any nominee included in the Corporation's proxy statement.

ARTICLE III

BOARD OF DIRECTORS

3.1 Duties. All corporate powers shall be exercised by or under the authority of the Board of Directors and the business and affairs of the corporation shall be managed by or under the direction of the Board of Directors.

3.2 Number, Election, and Qualification. The number of directors of the corporation shall be a minimum of one (1) and a maximum of seven (7) as determined from time to time by the Board of Directors. Directors elected after 1991 will serve two-year terms beginning at the time of their formal qualification in the year of their election. The shareholders or Board of Directors may change from time to time the number of directors. If the Articles of Incorporation establish the number of directors, then, after shares are issued, only the shareholders may change the number of directors. The directors shall hold office until the next annual meeting of shareholders and until their successors have been elected and qualified. Directors need not be residents of the State of Oregon or shareholders of the corporation. The number of directors may be increased or decreased from time to time by amendment of the Bylaws, but no decrease shall have the effect of shortening the term of any incumbent director.

3.3 Chairman of the Board of Directors. The directors may elect a director to serve as Chairman of the Board of Directors to preside at all meetings of the Board of Directors and to fulfill any other responsibilities delegated by the Board of Directors.

3.4 Regular Meetings. A regular meeting of the Board of Directors shall be held without other notice than this Section 3.4 immediately after, and at the same place as, the annual meeting of shareholders. The Board of Directors may provide, by resolution, the time and place, either within or without the State of Oregon, for the holding of additional regular meetings without other notice than the resolution.

3.5 Special Meetings. Special meetings of the Board of Directors may be called by or at the request of the President or any director. The person or persons authorized to call special meetings of the Board of Directors may fix any place, either within or without the State of Oregon, as the place for holding any special meeting of the Board of Directors called by them.

3.6 Notice. Notice of the date, time, and place of any special meeting of the Board of Directors shall be given at least forty-eight (48) hours prior to the meeting by any means provided by law. If mailed, notice shall be deemed to be given upon deposit in the United States mail addressed to the director at the director's business address, with postage thereon prepaid. If by facsimile or electronic mail, notice shall be deemed to be given when the facsimile or electronic mail is sent to the director at the director's facsimile number or electronic mail address. Notice by all other means shall be deemed to be given when received by the director or a person at the director's business or residential address whom the person giving notice reasonably believes will deliver or report the notice to the director within 24 hours. The attendance of a director at a meeting shall constitute a waiver of notice of such meeting, except where a director attends a meeting for the express purpose of objecting to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the Board of Directors need be specified in the notice or waiver of notice of such meeting.

3.7 Waiver of Notice. A director may at any time waive any notice required by law, the Articles of Incorporation, or these Bylaws. Unless a director attends or participates in a meeting, a waiver must be in writing, must be signed by the director entitled to notice, must specify the meeting for which notice is waived, and must be filed with the minutes or corporate records.

3.8 Quorum. A majority of the number of directors fixed by Section 3.2 shall constitute a quorum for the transaction of business at any meeting of the Board of Directors.

3.9 Manner of Acting.

(a) The act of the majority of the directors present at a meeting at which a quorum is present shall be the act of the Board of Directors, unless a different number is provided by law, the Articles of Incorporation, or these Bylaws.

(b) Members of the Board of Directors may hold a board meeting by conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other. Participation in such a meeting shall constitute presence in person at the meeting.

(c) Unless otherwise restricted by the Articles of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors may be taken without a meeting if all members of the Board of Directors consent thereto in writing or by electronic transmission and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the Board of Directors. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form. The action shall be effective on the date when the last signature is placed on the consent or the date when the last electronic transmission is sent or at such earlier or later time as is set forth in the consent.

3.10 Vacancies. Any vacancy, including a vacancy resulting from an increase in the number of directors, occurring on the Board of Directors may be filled by the shareholders, the

Board of Directors, or the affirmative vote of a majority of the remaining directors if less than a quorum of the Board of Directors, or by a sole remaining director. If the vacant office is filled by the shareholders and was held by a director elected by a voting group of shareholders, then only the holders of shares of that voting group are entitled to vote to fill the vacancy. Any directorship not so filled by the directors shall be filled by election at an annual meeting or at a special meeting of shareholders called for that purpose. A director elected or appointed to fill a vacancy shall be elected or appointed to hold office for the remainder of the full term of the class of directors in which the vacancy occurred and until such director's successor shall have been elected and qualified. A vacancy that will occur at a specific later date, by reason of a resignation or otherwise, may be filled before the vacancy occurs, and the new director shall take office when the vacancy occurs.

3.11 Compensation. By resolution of the Board of Directors, the directors may be paid their expenses, if any, of attendance at each meeting of the Board of Directors and may be paid a fixed sum for attendance at each meeting of the Board of Directors or a stated salary as director. No such payment shall preclude any director from serving the corporation in any other capacity and receiving compensation therefor.

3.12 Presumption of Assent. A director of the corporation who is present at a meeting of the Board of Directors or a committee of the Board of Directors shall be presumed to have assented to the action taken (a) unless the director's dissent to the action is entered in the minutes of the meeting, (b) unless a written dissent to the action is filed with the person acting as the secretary of the meeting before the adjournment thereof or forwarded by certified or registered mail to the Secretary of the corporation immediately after the adjournment of the meeting or (c) unless the director objects at the meeting to the holding of the meeting or transacting business at the meeting. The right to dissent shall not apply to a director who voted in favor of the action.

3.13 Director Conflict of Interest.

(a) A transaction in which a director of the corporation has a direct or indirect interest shall be valid notwithstanding the director's interest in the transaction if the material facts of the transaction and the director's interest are disclosed or known to the Board of Directors or a committee thereof and it authorizes, approves, or ratifies the transaction by a vote or consent sufficient for the purpose without counting the votes or consents of directors with a direct or indirect interest in the transaction; or the material facts of the transaction and the director's interest are disclosed or known to shareholders entitled to vote and they, voting as a single group, authorize, approve, or ratify the transaction by a majority vote; or the transaction is fair to the corporation.

(b) A conflict of interest transaction may be authorized, approved, or ratified if it receives the affirmative vote of a majority of directors on the Board of Directors or a committee thereof who have no direct or indirect interest in the transaction. If a majority of such directors vote to authorize, approve, or ratify the transaction, a quorum is present for the purpose of taking action.

(c) A conflict of interest transaction may be authorized, approved, or ratified by a majority vote of shareholders entitled to vote thereon. Shares owned by or voted under the control of a director or an entity controlled by a director who has a direct or indirect interest in the transaction are entitled to vote with respect to a conflict of interest transaction. A majority of the

shares, whether or not present, that are entitled to be counted in a vote on the transaction constitutes a quorum for the purpose of authorizing, approving, or ratifying the transactions.

(d) A director has an indirect interest in a transaction if (i) another entity in which the director has a material financial interest or in which the director is a general partner is a party to the transaction or (ii) another entity of which the director is a director, officer, or trustee is a party to the transaction and the transaction is or should be considered by the Board of Directors.

3.14 Removal. The shareholders may remove one or more directors with or without cause at a meeting called expressly for that purpose, unless the Articles of Incorporation provide for removal for cause only. If a director is elected by a voting group of shareholders, only those shareholders may participate in the vote to remove the director.

3.15 Resignation. Any director may resign by delivering written notice to the Board of Directors, its chairperson, or the corporation. Such resignation shall be effective, unless the notice specifies a later effective date, (a) on receipt, (b) five days after its deposit in the United States mails, if mailed postpaid and correctly addressed, or (c) on the date shown on the return receipt, if sent by registered or certified mail, return receipt requested, and the receipt is signed by addressee. Once delivered, a notice of resignation is irrevocable unless revocation is permitted by the Board of Directors.

ARTICLE IV

EXECUTIVE COMMITTEE AND OTHER COMMITTEES

4.1 Designation of Executive Committee. The Board of Directors may designate two or more directors to constitute an executive committee. The designation of an executive committee, and the delegation of authority to it, shall not operate to relieve the Board of Directors, or any member thereof, of any responsibility imposed by law. No member of the executive committee shall continue to be a member thereof after ceasing to be a director of the corporation. The Board of Directors shall have the power at any time to increase or decrease the number of members of the executive committee, to fill vacancies thereon, to change any member thereof, and to change the functions or terminate the existence thereof. The creation of the executive committee and the appointment of members to it shall be approved by a majority of the directors in office when the action is taken, unless a greater number is required by the Articles of Incorporation or these Bylaws.

4.2 Powers of Executive Committee. During the interval between meetings of the Board of Directors, and subject to such limitations as may be imposed by resolution of the Board of Directors, the executive committee may have and may exercise all the authority of the Board of Directors in the management of the corporation, provided that the committee shall not have the authority of the Board of Directors with respect to the following matters: authorizing distributions; approving or proposing to the shareholders actions that are required to be approved by the shareholders under the Articles of Incorporation or these Bylaws or by law; filling vacancies on the Board of Directors or any committee thereof; amending the Articles of Incorporation; adopting, amending, or repealing bylaws; approving a plan of merger not requiring shareholder approval; authorizing or approving a reacquisition of shares, except according to a formula or method

prescribed by the Board of Directors; authorizing or approving the issuance or sale or contract for sale of shares or determining the designation and relative rights, preferences, and limitations of a class or series of shares except within limits specifically prescribed by the Board of Directors.

4.3 Procedures; Meetings; Quorum.

(a) The Board of Directors shall appoint a chairperson from among the members of the executive committee and shall appoint a secretary who may, but need not, be a member of the executive committee. The chairperson shall preside at all meetings of the executive committee and the secretary of the executive committee shall keep a record of its acts and proceedings, which shall be filed with the minutes of the corporation.

(b) Regular meetings of the executive committee, of which no notice shall be necessary, shall be held on such days and at such places as shall be fixed by resolution adopted by the executive committee. Special meetings of the executive committee shall be called at the request of the President or of any member of the executive committee, and shall be held upon such notice as is required by these Bylaws for special meetings of the Board of Directors.

(c) Attendance of any member of the executive committee at a meeting shall constitute a waiver of notice of the meeting. A majority of the executive committee, from time to time, shall be necessary to constitute a quorum for the transaction of any business, and the act of a majority of the members present at a meeting at which a quorum is present shall be the act of the executive committee. Members of the executive committee may hold a meeting of such committee by conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and participation in such meeting shall constitute presence in person at the meeting.

(d) Unless otherwise restricted by the Articles of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the executive committee may be taken without a meeting if all members of the executive committee consent thereto in writing or by electronic transmission and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the executive committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form. The action shall be effective on the date when the last signature is placed on the consent or the date when the last electronic transmission is sent or at such earlier or later time as is set forth in the consent.

(e) The Board of Directors may approve a reasonable fee for the members of the executive committee as compensation for attendance at meetings of the executive committee.

4.4 Other Committees. By the approval of a majority of the directors when the action is taken (unless a greater number is required by the Articles of Incorporation), the Board of Directors, by resolution, may create one or more additional committees, appoint directors to serve on them, and define the duties of such committee or committees. Each such committee shall have two or more members, who shall serve at the pleasure of the Board of Directors. Such additional committee or committees shall not have the powers proscribed in Section 4.2.

ARTICLE V

OFFICERS

5.1 Number. The officers of the corporation shall be a President and a Secretary. Such other officers and assistant officers as are deemed necessary or desirable may be appointed by the Board of Directors and shall have such powers and duties prescribed by the Board of Directors or the officer authorized by the Board of Directors to prescribe the duties of other officers. A duly appointed officer may appoint one or more officers or assistant officers if such appointment is authorized by the Board of Directors. Any two or more offices may be held by the same person.

5.2 Appointment and Term of Office. The officers of the corporation shall be appointed annually by the Board of Directors at the first meeting of the Board of Directors held after the annual meeting of the shareholders. If the officers shall not be appointed at the meeting, a meeting shall be held as soon thereafter as is convenient for such appointment of officers. Each officer shall hold office until a successor shall have been duly appointed and qualified or until the officer's death, resignation, or removal.

5.3 Qualification. An officer need not be a director, shareholder, or a resident of the State of Oregon.

5.4 Resignation and Removal. An officer may resign at any time by delivering notice of such resignation to the corporation. A resignation is effective on receipt unless the notice specifies a later effective date. If the corporation accepts a specified later effective date, the Board of Directors may fill the pending vacancy before the effective date, but the successor may not take office until the effective date. Once delivered, a notice of resignation is irrevocable unless revocation is permitted by the Board of Directors. Any officer appointed by the Board of Directors may be removed at any time with or without cause. Appointment of an officer shall not of itself create contract rights. Removal or resignation of an officer shall not affect the contract rights, if any, of the corporation or the officer.

5.5 Vacancies. A vacancy in any office because of death, resignation, removal, disqualification, or otherwise may be filled by the Board of Directors for the unexpired portion of the term.

5.6 President. The President shall be the chief executive officer of the corporation and shall be in general charge of its business and affairs, subject to the control of the Board of Directors. The President shall preside at all meetings of shareholders and at all meetings of directors (unless there is an acting Chairman of the Board presiding at the meeting). The President may execute on behalf of the corporation all contracts, agreements, stock certificates, and other instruments. The President shall from time to time report to the Board of Directors all matters within the President's knowledge affecting the corporation that should be brought to the attention of the Board of Directors. The President shall vote all shares of stock in other corporations owned by the corporation and is empowered to execute proxies, waivers of notice, consents, and other instruments in the name of the corporation with respect to such stock. The President shall perform other duties assigned by the Board of Directors.

5.7 Vice Presidents. In the absence of the President or in the event of the President's death or inability or refusal to act, the Vice President (or, in the event there be more than one Vice President, the Vice Presidents in the order designated at the time of their election, or in the absence of any designation, then in the order of their election), if any, shall perform the duties of the President and, when so acting, shall have all the powers of and be subject to all the restrictions upon the President. Any Vice President shall perform other duties assigned by the President or by the Board of Directors.

5.8 Secretary. The Secretary shall prepare the minutes of all meetings of the directors and shareholders, shall have custody of the minute books and other records pertaining to the corporate business, and shall be responsible for authenticating the records of the corporation. The Secretary shall countersign all instruments requiring the seal of the corporation and shall perform other duties assigned by the Board of Directors. In the event no Vice President exists to succeed to the President under the circumstances set forth in Section 5.7 above, the Secretary shall make such succession.

5.9 Assistant Secretaries. The Assistant Secretaries, when authorized by the Board of Directors or the Bylaws, may sign, with the President or Vice President, certificates for shares of the corporation the issuance of which shall have been authorized by resolution of the Board of Directors. The Assistant Secretaries shall, if required by the Board of Directors, give bonds for the faithful discharge of their duties in such sums and with such sureties as the Board of Directors shall determine. The Assistant Secretaries shall, in general, perform such duties as shall be specifically assigned to them in writing by the President or the Board of Directors.

5.10 Salaries. The salaries of the officers shall be fixed from time to time by the Board of Directors, and no officer shall be prevented from receiving such salary because the officer is also a director of the corporation.

ARTICLE VI

ISSUANCE OF SHARES

6.1 Certificates for Shares.

(a) The shares of stock of the corporation shall be represented by certificates in such form as appropriate officers of the corporation may from time to time prescribe; provided that the Board may provide by resolution or resolutions that some or all of any or all classes or series of stock of the corporation shall be uncertificated shares, as provided under the Oregon Business Corporation Act. Such certificates shall be signed, either manually or electronically, by two officers of the corporation, at least one of whom shall be the President or a Vice President, and may be sealed with the seal of the corporation or a facsimile thereof. All certificates for shares shall be consecutively numbered or otherwise identified. Except as otherwise provided by law, the rights and obligations of the holders of uncertificated shares and the rights and obligations of the holders of shares represented by certificates of the same class and series shall be identical.

(b) Every certificate for shares of stock that are subject to any restriction on transfer pursuant to the Articles of Incorporation, the Bylaws, applicable securities laws, agreements among or between shareholders, or any agreement to which the corporation is a party shall have conspicuously noted on the face or back of the certificate either (i) the full text of the restriction or (ii) a statement of the existence of such restriction and that the corporation retains a copy of the restriction. Every certificate issued when the corporation is authorized to issue more than one class or series of stock shall set forth on its face or back either (i) the full text of the designations, relative rights, preferences, and limitations of the shares of each class and series authorized to be issued and the authority of the Board of Directors to determine variations for future series or (ii) a statement of the existence of such designations, relative rights, preferences, and limitations and a statement that the corporation will furnish a copy thereof to the holder of such certificate upon written request and without charge.

(c) The name and mailing address of the person to whom the shares represented thereby are issued, with the number of shares and date of issue, shall be entered on the stock transfer books of the corporation. Each shareholder shall have the duty to notify the corporation of his or her mailing address. All certificates surrendered to the corporation for transfer shall be canceled, and no new certificate shall be issued until the former certificate for a like number of shares shall have been surrendered and canceled, except that in case of a lost, destroyed, or mutilated certificate a new one may be issued therefor upon such terms and indemnity to the corporation as the Board of Directors prescribes.

6.2 Transfer of Shares. A transfer of shares of the corporation shall be made only on the stock transfer books of the corporation by the holder of record thereof or by the holder's legal representative, who shall furnish proper evidence of authority to transfer, or by the holder's attorney thereunto authorized by power of attorney duly executed and filed with the Secretary of the corporation. The person in whose name shares stand on the books of the corporation shall be deemed by the corporation to be the owner thereof for all purposes.

6.3 Transfer Agent and Registrar. The Board of Directors may from time to time appoint one or more transfer agents and one or more registrars for the shares of the corporation, with such powers and duties as the Board of Directors determines by resolution. The signatures of officers upon a certificate may be facsimiles if the certificate is manually signed on behalf of a transfer agent or by a registrar other than the corporation itself or an employee of the corporation.

6.4 Officer Ceasing to Act. If the person who signed a share certificate, either manually or in facsimile, no longer holds office when the certificate is issued, the certificate is nevertheless valid.

ARTICLE VII

CONTRACTS, LOANS, CHECKS, AND OTHER INSTRUMENTS

7.1 Contracts. The Board of Directors may authorize any officer or officers and agent or agents to enter into any contract or execute and deliver any instrument in the name of and on behalf of the corporation, and such authority may be general or confined to specific instances.

7.2 Loans. No loans shall be contracted on behalf of the corporation and no evidence of indebtedness shall be issued in its name unless authorized by a resolution of the Board of Directors. Such authority may be general or confined to specific instances.

7.3 Checks; Drafts. All checks, drafts, or other orders for the payment of money and notes or other evidences of indebtedness issued in the name of the corporation shall be signed by such officer or officers and agent or agents of the corporation and in such manner as shall from time to time be determined by resolution of the Board of Directors.

7.4 Deposits. All funds of the corporation not otherwise employed shall be deposited from time to time to the credit of the corporation in such banks, trust companies, or other depositories as the Board of Directors may select.

ARTICLE VIII

MISCELLANEOUS PROVISIONS

8.1 Seal. The Board of Directors from time to time may provide for a seal of the corporation, which shall be circular in form and shall have inscribed thereon the name of the corporation, the state of incorporation and the words “Corporate Seal.”

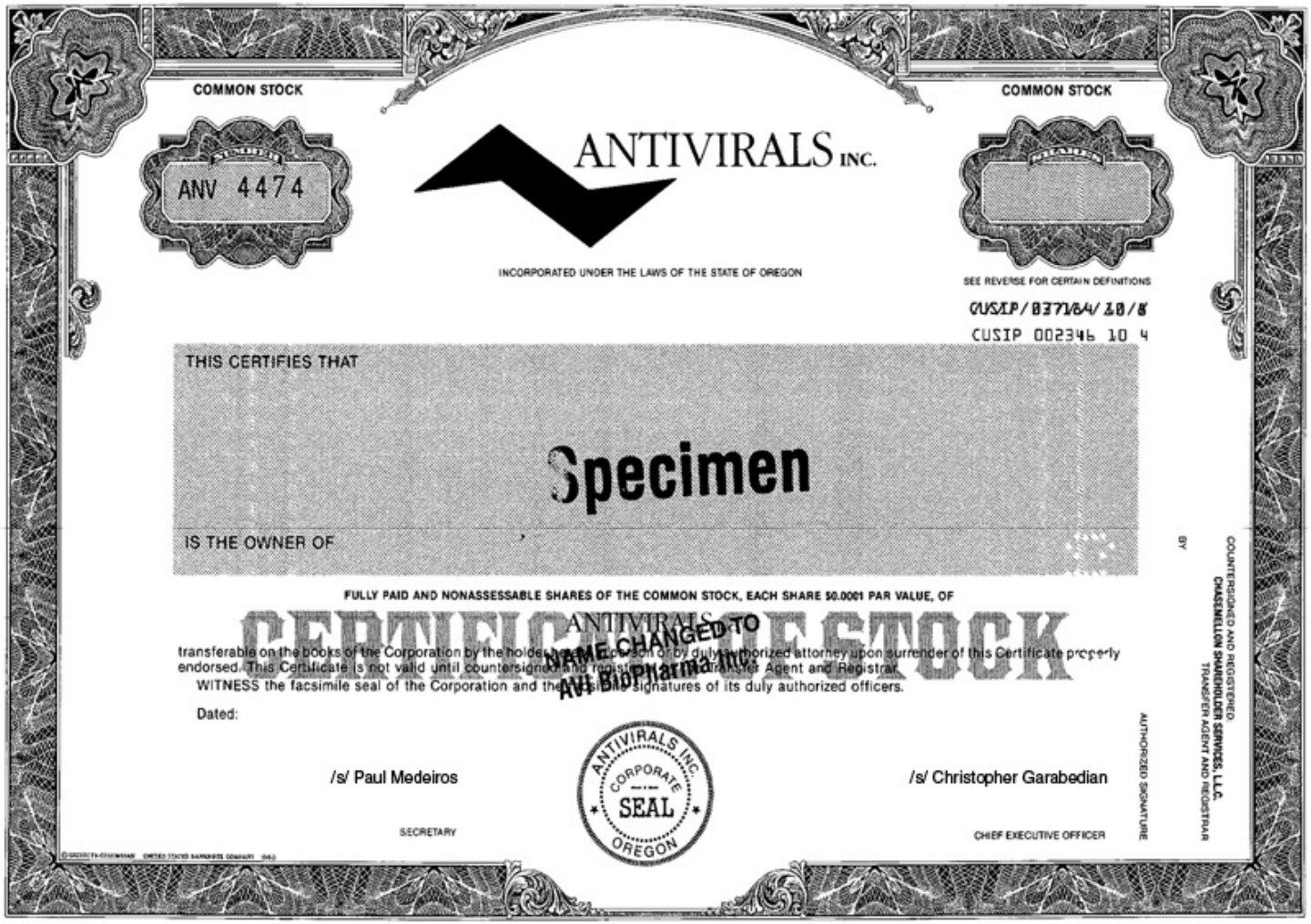
8.2 Severability. Any determination that any provision of these Bylaws is for any reason inapplicable, invalid, illegal, or otherwise ineffective shall not affect or invalidate any other provision of these Bylaws.

ARTICLE IX

AMENDMENTS

These Bylaws may be altered, amended, or repealed and new bylaws may be adopted by the Board of Directors at any regular or special meeting, subject to repeal or change by action of the shareholders of the corporation.

Exhibit 4.1


COMMON STOCK
COMMON STOCK
ANV 4474
ANTIVIRALS INC.
INCORPORATED UNDER THE LAWS OF THE STATE OF OREGON
SEE REVERSE FOR CERTAIN DEFINITIONS
CUSIP 037184 10 8
CUSIP 002346 10 4
THIS CERTIFIES THAT
Specimen
IS THE OWNER OF
FULLY PAID AND NONASSESSABLE SHARES OF THE COMMON STOCK, EACH SHARE $0.0001 PAR VALUE, OF
ANTIVIRALS
CERTIFICATE OF STOCK
NAME CHANGED TO
AVI BioPharma, Inc.
transferable on the books of the Corporation by the holder hereof in person or by duly authorized attorney upon surrender of this Certificate properly endorsed. This Certificate is not valid until countersigned and registered by the Transfer Agent and Registrar.
WITNESS the facsimile seal of the Corporation and the facsimile signatures of its duly authorized officers.
Dated:
/s/ Paul Medeiros
SECRETARY
ANTIVIRALS INC. CORPORATE SEAL OREGON
/s/ Christopher Garabedian
CHIEF EXECUTIVE OFFICER
BY
AUTHORIZED SIGNATURE
COUNTERSIGNED AND REGISTERED
CHASEMELLON SHAREHOLDER SERVICES, L.L.C.
TRANSFER AGENT AND REGISTRAR

ANTIVIRALS INC.

The Corporation has authorized two classes of capital stock, Preferred Stock, $0.0001 par value, issuable in one or more series, and Common Stock, $0.0001 par value. The Corporation will furnish to any shareholder, upon request and without charge, a full statement of the designations, preferences, limitations and relative rights of the shares of each class authorized to be issued, the variations and the relative rights and preferences between the shares of each series so far as they have been fixed and determined, and the authority of the board of directors to fix and determine the relative rights and preferences of any subsequent series.

The following abbreviations, when used in the inscription on the face of this certificate, shall be construed as though they were written out in full according to applicable laws or regulations:

TEN COM — as tenants in common
TEN ENT — as tenants by the entireties
JT TEN — as joint tenants with right of survivorship and not as tenants in common

UNIF GIFT MIN ACT — ..... Custodian .....
(Cust) (Minor)
under Uniform Gifts to Minors Act .....
(State)

Additional abbreviations may also be used though not in the above list.

For Value Received, _____ hereby sell, assign and transfer unto

PLEASE INSERT SOCIAL SECURITY OR OTHER IDENTIFYING NUMBER OF ASSIGNEE

_____

(PLEASE PRINT OR TYPEWRITE NAME AND ADDRESS, INCLUDING ZIP CODE, OF ASSIGNEE)

_____

_____

_____ Shares of the Common Stock represented by the within Certificate, and do hereby irrevocably constitute and appoint

_____ Attorney to transfer the said shares on the books of the within named Company with full power of substitution in the premises.

Dated _____

_____

NOTICE: THE SIGNATURE TO THIS ASSIGNMENT MUST CORRESPOND WITH THE NAME AS WRITTEN UPON THE FACE OF THE CERTIFICATE IN EVERY PARTICULAR, WITHOUT ALTERATION OR ENLARGEMENT OR ANY CHANGE WHATEVER.

Signature(s) Guaranteed:

THE SIGNATURE(S) SHOULD BE GUARANTEED BY AN ELIGIBLE GUARANTOR INSTITUTION, (BANKS, STOCKBROKERS, SAVINGS AND LOAN ASSOCIATIONS AND CREDIT UNIONS WITH MEMBERSHIP IN AN APPROVED SIGNATURE GUARANTEE MEDALLION PROGRAM), PURSUANT TO S.E.C. RULE 17Ad-15.

Exhibit 10.2

AMENDMENT TO EMPLOYMENT AGREEMENT

THIS AMENDMENT (““Amendment”) TO THE EMPLOYMENT AGREEMENT (“Agreement”) dated November 4, 1996 is made on this 28 th day of December, 2008 (the “Effective Date”), by and between AVI BioPharma, Inc., an Oregon corporation, with its principal office at 1 SW Columbia Street, Suite 1105, Portland, OR 97258 (“Company”), and Dwight Weller, Ph.D. (“Employee”).

RECITALS:

The Company has entered into an employment agreement with the Employee.

Section 409A was added to the Internal Revenue Code of 1986 (“Section 409A”) regulating “deferred compensation.” Treasury Regulations and IRS rulings issued under Section 409A recently became effective and to avoid adverse tax consequences such regulations and rulings require amendments to be made to agreements that contain “deferred compensation” as defined under Section 409A.

The Agreement contains provisions that may be impacted by Section 409A.

NOW, THEREFORE, in consideration of the mutual benefits contained herein, the parties hereby agree to amend the Agreement as follows:

AMENDMENT TO AGREEMENT:

1. Provisions of Agreement Effective. Except as specifically modified by this Amendment, the provisions of the Agreement are unchanged and remain fully effective. This Amendment is part of the Agreement and from this date references to the Agreement will include this Amendment.

2. Compliance with Section 409A. It is the intention of the parties that no payment or entitlement pursuant to the Agreement will give rise to any adverse tax consequences to the Employee or the Company with regard to Section 409A. This Amendment and the Agreement shall be interpreted to that end and consistent with that objective. The Company and the Employee shall, to the extent necessary to comply with Section 409A and permitted thereunder, agree to act reasonably and in good faith to mutually reform the provisions of the Agreement to avoid the application of the additional tax and interest under Section 409A(a)(l)(B), provided that any such reformation shall not require an additional financial obligation by the Company.

3. Delayed Payments for Specified Employees. Notwithstanding any other provision in the Agreement, if the Employee is a “Specified Employee,” under Treasury Regulation Section 1.409A-1(i), on the date of termination, to the extent required by Section 409A no payment of any “deferred compensation,” under Treasury Regulation Section 1.409A-1(b), shall be made to the Employee during the period from the date of termination until the six (6) month anniversary of the date of termination. If any payment to the Employee is delayed pursuant to the foregoing sentence, such payment instead shall be made on the first business day

following the expiration of such six (6) month period or, at such earlier date as allowed under Section 409A for events such as death, disability, unforeseeable emergency or any other reason permitted under Section 409A.

IN WITNESS WHEREOF, the Company has caused this Amendment to he signed by its duly authorized representative, and the Employee has hereunder set his/her name as of the date of this Amendment.

COMPANY: **AVI BioPharma, Inc.**

By: /s/ Leslie Hudson
Its: President & CEO

EMPLOYEE: /s/ Dwight Weller
Dwight Weller, Ph.D.

Exhibit 10.3

AMENDMENT NO. 2
TO
EMPLOYMENT AGREEMENT

This Amendment No. 2 to Employment Agreement (the " Amendment") is entered into effective the 19th day of January, 2010 (the "Effective Date") by and between AVI BioPharma, Inc., an Oregon corporation ("Company") and Dwight Weller, Ph.D. ("Employee").

RECITALS

A. Whereas, Company and Employee are parties to that certain Employment Agreement dated the 4 th day of November, 1996, as amended by Amendment to Employment Agreement entered into effective the 22 nd day of December, 2008, copies of which are attached hereto as Exhibit A (the "Employment Agreement").

B. Whereas, the Company and the Employee desire to add a provision to the Employment Agreement related to Section 280G of the Internal Revenue Code of 1986, as amended.

Now, therefore, in consideration of the representations, warranties and covenants contained herein, the Company and the Employee agree as follows:

AGREEMENT

1. Section 24 is hereby added to the Employment Agreement, and shall state in its entirety as follows:

"24. Section 280G

(a) Except as provided below, the payments or benefits to which Employee will be entitled under Section 13 of the Agreement will be reduced to the extent necessary so that Employee will not be liable for the federal excise tax (the "Excise Tax") levied on certain "excess parachute payments" under section 4999 of the Internal Revenue Code of 1986, as amended (" Code").

(b) The limitation above will not apply if:

(1) the difference between

(A) the present value of all payments to which Employee is entitled under Section 13 of the Agreement determined without regard to the limitation above, less

(B) the present value of all federal, state, and other income and excise taxes for which Employee is liable as a result of such payments; exceeds

(2) the difference between

(A) the present value of all payments to which Employee is entitled under Section 13 of the Agreement calculated as if the limitation above applies, less

(B) the present value of all federal, state, and other income and excise taxes for which Employee is liable as a result of such reduced payments.

(c) Present values will be determined using the interest rate specified in section 280G of the Code and will be the present values as of the date on which Employee's employment terminates (unless it is necessary to use a different date in order to avoid adverse consequences under section 280G).

(d) As a result of the uncertainty in the application of Section 280G and 4999 of the Code, it is possible that, despite the limitations on parachute payments provided in this Section 24, amounts may be paid or distributed by the Company to or for the benefit of the Employee under this Agreement or otherwise which are treated as excess parachute payments. In the event that any payments received by the Employee are determined by the IRS to be subject to the Excise Tax, the Company shall pay the Employee as promptly as possible following such determination (but in no event later than the end of the Employee's taxable year in which the Employee remits the related taxes) an additional amount which may be necessary to reimburse the Employee on an after-tax basis for any Excise Tax that may be imposed on such excess parachute payments and for any interest and penalties related to such Excise Tax that may be imposed by the IRS or a court. In addition, the Company shall indemnify and hold the Employee harmless, on an after-tax basis, from and against any and all losses, costs, damages or expenses (including reasonable attorneys' and accountants fees) arising out of the imposition on Employee of any Excise Tax."

2. In all other respects, the Employment Agreement shall remain unchanged and in full force and effect.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties have executed this Amendment effective the date first set forth above.

AVI BioPharma, Inc.

By:	/s/ Leslie Hudson	/s/ Dwight Weller
Name:	Leslie Hudson, Ph.D.	Dwight Weller, Ph.D.
Title:	Chief Executive Officer	

EXHIBIT A

Employment Agreement and Amendment No. 1 to Employment Agreement

Previously Filed

Exhibit 10.5

AMENDMENT TO EMPLOYMENT AGREEMENT

THIS AMENDMENT (““Amendment”) TO THE EMPLOYMENT AGREEMENT (“Agreement”) dated July 14, 1997 is made on this 28 th day of December, 2008 (the “Effective Date”), by and between AVI BioPharma, Inc., an Oregon corporation, with its principal office at 1 SW Columbia Street, Suite 1105, Portland, OR 97258 (“Company”), and Patrick Iversen, Ph.D. (“Employee”).

RECITALS:

The Company has entered into an employment agreement with the Employee.

Section 409A was added to the Internal Revenue Code of 1986 (“Section 409A”) regulating “deferred compensation.” Treasury Regulations and IRS rulings issued under Section 409A recently became effective and to avoid adverse tax consequences such regulations and rulings require amendments to be made to agreements that contain “deferred compensation” as defined under Section 409A.

The Agreement contains provisions that may be impacted by Section 409A.

NOW, THEREFORE, in consideration of the mutual benefits contained herein, the parties hereby agree to amend the Agreement as follows:

AMENDMENT TO AGREEMENT:

1. Provisions of Agreement Effective. Except as specifically modified by this Amendment, the provisions of the Agreement are unchanged and remain fully effective. This Amendment is part of the Agreement and from this date references to the Agreement will include this Amendment.

2. Compliance with Section 409A. It is the intention of the parties that no payment or entitlement pursuant to the Agreement will give rise to any adverse tax consequences to the Employee or the Company with regard to Section 409A. This Amendment and the Agreement shall be interpreted to that end and consistent with that objective. The Company and the Employee shall, to the extent necessary to comply with Section 409A and permitted thereunder, agree to act reasonably and in good faith to mutually reform the provisions of the Agreement to avoid the application of the additional tax and interest under Section 409A(a)(l)(B), provided that any such reformation shall not require an additional financial obligation by the Company.

3. Delayed Payments for Specified Employees. Notwithstanding any other provision in the Agreement, if the Employee is a “Specified Employee,” under Treasury Regulation Section 1.409A-1(i), on the date of termination, to the extent required by Section 409A no payment of any “deferred compensation,” under Treasury Regulation Section 1.409A-1(b), shall be made to the Employee during the period from the date of termination until the six (6) month anniversary of the date of termination. If any payment to the Employee is delayed pursuant to the foregoing sentence, such payment instead shall be made on the first business day

following the expiration of such six (6) month period or, at such earlier date as allowed under Section 409A for events such as death, disability, unforeseeable emergency or any other reason permitted under Section 409A.

IN WITNESS WHEREOF, the Company has caused this Amendment to he signed by its duly authorized representative, and the Employee has hereunder set his/her name as of the date of this Amendment.

COMPANY: **AVI BioPharma, Inc.**

By: /s/ Leslie Hudson
Its: President and CEO

EMPLOYEE: /s/ Patrick Iversen
Patrick Iversen, Ph.D.

Exhibit 10.6

AMENDMENT NO. 2
TO
EMPLOYMENT AGREEMENT

This Amendment No. 2 to Employment Agreement (the " Amendment") is entered into effective the 18 day of January, 2010 (the "Effective Date") by and between AVI BioPharma, Inc., an Oregon corporation ("Company") and Patrick Iversen, Ph.D. ("Employee").

RECITALS

A. Whereas, Company and Employee are parties to that certain Employment Agreement dated the 14 th day of July, 1997, as amended by Amendment to Employment Agreement entered into effective the 19th day of December, 2008, copies of which are attached hereto as Exhibit A (the "Employment Agreement").

B. Whereas, the Company and the Employee desire to add a provision to the Employment Agreement related to Section 280G of the Internal Revenue Code of 1986, as amended.

Now, therefore, in consideration of the representations, warranties and covenants contained herein, the Company and the Employee agree as follows:

AGREEMENT

1. Section 24 is hereby added to the Employment Agreement, and shall state in its entirety as follows:

"24. Section 280G

(a) Except as provided below, the payments or benefits to which Employee will be entitled under Section 13 of the Agreement will be reduced to the extent necessary so that Employee will not be liable for the federal excise tax (the "Excise Tax") levied on certain "excess parachute payments" under section 4999 of the Internal Revenue Code of 1986, as amended (" Code").

(b) The limitation above will not apply if:

(1) the difference between

(A) the present value of all payments to which Employee is entitled under Section 13 of the Agreement determined without regard to the limitation above, less

(B) the present value of all federal, state, and other income and excise taxes for which Employee is liable as a result of such payments; exceeds

(2) the difference between

(A) the present value of all payments to which Employee is entitled under Section 13 of the Agreement calculated as if the limitation above applies, less

(B) the present value of all federal, state, and other income and excise taxes for which Employee is liable as a result of such reduced payments.

(c) Present values will be determined using the interest rate specified in section 280G of the Code and will be the present values as of the date on which Employee's employment terminates (unless it is necessary to use a different date in order to avoid adverse consequences under section 280G).

(d) As a result of the uncertainty in the application of Section 280G and 4999 of the Code, it is possible that, despite the limitations on parachute payments provided in this Section 24, amounts may be paid or distributed by the Company to or for the benefit of the Employee under this Agreement or otherwise which are treated as excess parachute payments. In the event that any payments received by the Employee are determined by the IRS to be subject to the Excise Tax, the Company shall pay the Employee as promptly as possible following such determination (but in no event later than the end of the Employee's taxable year in which the Employee remits the related taxes) an additional amount which may be necessary to reimburse the Employee on an after-tax basis for any Excise Tax that may be imposed on such excess parachute payments and for any interest and penalties related to such Excise Tax that may be imposed by the IRS or a court. In addition, the Company shall indemnify and hold the Employee harmless, on an after-tax basis, from and against any and all losses, costs, damages or expenses (including reasonable attorneys' and accountants fees) arising out of the imposition on Employee of any Excise Tax."

2. In all other respects, the Employment Agreement shall remain unchanged and in full force and effect.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties have executed this Amendment effective the date first set forth above.

AVI BioPharma, Inc.

By: /s/ Leslie Hudson, Ph.D.
Name: Leslie Hudson, Ph.D.
Title: Chief Executive Officer

By: /s/ Patrick Iversen, Ph.D.
Name: Patrick Iversen, Ph.D.

EXHIBIT A

Employment Agreement and Amendment No. 1 to Employment Agreement

Previously Filed

Exhibit 10.9

AMENDMENT NO. 1
TO
EMPLOYMENT AGREEMENT

This Amendment No. 1 to Employment Agreement (the " Amendment") is entered into effective the 16th day of October, 2009 (the "Effective Date") by and between AVI BioPharma, Inc., an Oregon corporation ("Company") and Ryszard Kole, Ph.D. ("Employee").

RECITALS

A. Whereas, Company and Employee are parties to that certain Employment Agreement dated the 10 th day of April, 2008, a copy of which is attached hereto as Exhibit A (the "Employment Agreement").

B. Whereas, the Company and the Employee desire to add a provision to the Employment Agreement related to Section 280G of the Internal Revenue Code of 1986, as amended.

Now, therefore, in consideration of the representations, warranties and covenants contained herein, the Company and the Employee agree as follows:

AGREEMENT

1. Section 25 is hereby added to the Employment Agreement, and shall state in its entirety as follows:

"25. Section 280G

(a) Except as provided below, the payments or benefits to which Employee will be entitled under Section 13 of the Agreement will be reduced to the extent necessary so that Employee will not be liable for the federal excise tax (the " Excise Tax") levied on certain "excess parachute payments" under section 4999 of the Code.

(b) The limitation above will not apply if:

(1) the difference between

(A) the present value of all payments to which Employee is entitled under Section 13 of the Agreement determined without regard to the limitation above, less

(B) the present value of all federal, state, and other income and excise taxes for which Employee is liable as a result of such payments; exceeds

(2) the difference between

(A) the present value of all payments to which Employee is entitled under Section 13 of the Agreement calculated as if the limitation above applies, less

(B) the present value of all federal, state, and other income and excise taxes for which Employee is liable as a result of such reduced payments.

(c) Present values will be determined using the interest rate specified in section 280G of the Code and will be the present values as of the date on which Employee's employment terminates (unless it is necessary to use a different date in order to avoid adverse consequences under section 280G).

(d) As a result of the uncertainty in the application of Section 280G and 4999 of the Code, it is possible that, despite the limitations on parachute payments provided in this Section 25, amounts may be paid or distributed by the Company to or for the benefit of the Employee under this Agreement or otherwise which are treated as excess parachute payments. In the event that any payments received by the Employee are determined by the IRS to be subject to the Excise Tax, the Company shall pay the Employee as promptly as possible following such determination (but in no event later than the end of the Employee's taxable year in which the Employee remits the related taxes) an additional amount which may be necessary to reimburse the Employee on an after-tax basis for any Excise Tax that may be imposed on such excess parachute payments and for any interest and penalties related to such Excise Tax that may be imposed by the IRS or a court. In addition, the Company shall indemnify and hold the Employee harmless, on an after-tax basis, from and against any and all losses, costs, damages or expenses (including reasonable attorneys' and accountants fees) arising out of the imposition on Employee of any Excise Tax."

2. In all other respects, the Employment Agreement shall remain unchanged and in full force and effect.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties have executed this Amendment effective the date first set forth above.

AVI BioPharma, Inc.

By:	/s/ Leslie Hudson	/s/ Ryszard Kole
Name:	Leslie Hudson, Ph.D.	Ryszard Kole, Ph.D.
Title:	Chief Executive Officer	

EXHIBIT A

Employment Agreement

Previously Filed

Exhibit 10.10

EMPLOYMENT AGREEMENT

THIS EMPLOYMENT AGREEMENT ("Agreement") is made on this 24 th day of July, 2008 (the "Effective Date"), by and between AVI BioPharma, Inc., an Oregon corporation, with its principal office at I S.W. Columbia Street, Suite 1100, Portland, Oregon 97258 (" Company"), and J. David Boyle II, 5329 Broadway, Oakland, CA 94618 ("Employee").

RECITALS:

The Company desires to hire the Employee as Senior Vice President – Chief Financial Officer and the Employee desires to accept such position under the terms and conditions stated herein.

NOW, THEREFORE, in consideration of the mutual benefits contained herein, the sufficiency of which the parties acknowledge, the parties hereby agree as follows:

AGREEMENT:

1. Employment Term. The term of employment ("Term") shall commence on the Effective Date and shall continue until the first anniversary of the Effective Date, unless extended or terminated in accordance with Section 12. This Agreement establishes an "at will" employment relationship, as such term is defined and used under Oregon law, between the Company and the Employee. Employee shall commence employment not later than August 18, 2008. Failure to do so shall be grounds for immediate termination for Cause, as such term is defined in Section 12 hereof.

2. Duties. Employee shall be employed as Senior Vice President- Chief Financial Officer and shall have such duties as are customarily associated with that position, including oversight of the Company's financial and other administrative systems and such other duties as may be assigned to him from time to time by the Company's Chief Executive Officer ("CEO") and the Board of Directors of the Company ("Board"). Employee shall be a direct report of the Company's Chief Executive Officer. Employee shall devote substantially all of his business time to the service of the Company throughout the Term. Employee and Company acknowledge and agree that (i) Employee may hold certain offices within certain entities as set forth on Exhibit A to this Agreement, (ii) Employee's devotion of reasonable amounts of time in such capacities, so long as it does not interfere with his performance of services hereunder, shall not conflict with the terms of this Agreement, and (iii) Exhibit A may be amended from time to time by agreement of the parties.

3. Compensation.

(a) Base Compensation. During the Term the Company shall compensate the Employee at an initial annual salary of Three Hundred Twenty Four Thousand Dollars ($324,000.00), payable in accordance with the Company's payroll practices in effect from time to time, and less amounts required to be withheld under applicable law and requested to be withheld by the Employee (as increased from time to time, " Base Compensation"). The Employee's Base Compensation shall be subject to review for potential increase (but not decrease) on an annual basis. Except as otherwise

provided in this Agreement, the Base Compensation shall be prorated for any period of service less than a full month.

(b) Bonus. The Employee shall be eligible for an annual bonus of up to 30% of Employee's Base Compensation, which bonus shall be paid in the normal cycle of payment of executive bonuses and upon achievement and satisfaction of goals and objectives (" Goals and Objectives") established upon mutual agreement of the CEO, Employee and the Compensation Committee of the Company's Board. Such goals shall be established concurrently with the goals and objectives of the Company's other senior executives. Employee shall be eligible for consideration for an award of a full 12-month bonus based on achievement of 2008 Goals and Objectives.

(c) Equity Compensation.

(i) On the Effective Date, the Employee will be granted options to purchase Three Hundred Fifty Thousand (350,000) shares of the Company's common stock (the "Standard Options") under the Company's 2002 Equity Incentive Plan (the "Plan"), with an exercise price at the fair market value of the Company common stock on the Effective Date. Subject to accelerated vesting or termination as set forth herein, the Standard Options shall vest in equal annual installments over three (3) years;

(ii) In addition, on the Effective Date the Employee will be granted options to purchase an additional One Hundred Fifty Thousand (150,000) options (the "Performance Options" and, together with the Standard Options, the "Options") under the Plan with an exercise price at the fair market value of the Company common stock on the Effective Date. The Performance Options shall vest in the event that the Company closes an equity financing transaction on or before December 31, 2008 in which the Company raises gross proceeds of not less than $15.00MM with an implied equity value of the Company pre-closing of not less than $2.50 per share (a " Qualified Financing"). Notwithstanding anything to the contrary herein, in the event that the effect of an event that constitutes a Change in Control (as such term is defined in Section 13(f) hereof) denies or would reasonably be expected to deny Employee the opportunity to achieve the vesting milestone set forth in this Section 3(c)(ii), the Performance Options shall fully vest upon the effective date of the Change in Control.

(iii) The exercise price of the Options and all other terms and conditions associated with the Options shall be determined in accordance with the Plan and grants (the forms of which are annexed hereto as Exhibit B and Exhibit C, respectively). To the maximum extent possible, the Options shall be Incentive Stock Options.

4. Expenses. The Company will reimburse Employee for all expenses reasonably incurred by him in discharging his duties for the Company, conditioned upon Employee's submission of written documentation in support of claimed reimbursement of such expenses, and consistent with the Company's expense reimbursement policies in effect from time to time. The Company will reimburse the Employee up to One Hundred Thousand Dollars ($100,000) for reasonable expenses incurred in 2008 to relocate Employee, Employee's spouse and parts of Employee's and Employee's Spouse's household in a manner compatible with Employee's duties hereunder to the city where the Company's headquarters are located (" Facility Location"), including the reasonable and customary costs of selling his California residence (but not vacant home carrying costs), shipment of personal effects to the Facility Location, and the customary closing costs associated with the purchase of a residence in the Facility Location. In addition, Company shall reimburse Employee (or pay on Employee's behalf) rent and related living expenses, not to exceed $2,000 per month in the aggregate and up to six (6) months in duration, for temporary living arrangements and up to $5,000 for reasonable attorney's fees incurred in negotiation of this Agreement.

5. Benefits. Subject to eligibility requirements, Employee shall be entitled to participate in such benefits plans and programs as adopted by the Company from time to time and shall be eligible for paid vacation of four (4) business weeks (20 business days) annually; *provided, however*, if Employee does not use all available vacation in any given year, Employee may roll-over up to one business week (5 business days) to the following year, the parties intending that Employee shall have an aggregate of five (5) business weeks (25 business days) of paid vacation in any year following 2008.

6. Confidentiality.

(a) In the course of his employment with the Company, it is anticipated that Employee may acquire knowledge (both orally and in writing) regarding confidential affairs of the Company and confidential or proprietary information including: (i) matters of a technical nature, such as know-how, inventions, processes, products, designs, chemicals, compounds, materials, drawings, concepts, formulas, trade secrets, secret processes or machines, inventions or research projects; (ii) matters of a business nature, such as information about costs, profits and pricing policies; (iii) markets, sales, suppliers, customers, plans for future development, plans for future products, marketing plans or strategies; and (iv) other information of a similar nature which is not generally disclosed by the Company to the public, referred to collectively hereafter as "Confidential Information." "Confidential Information" shall not include information generally available to the public. Employee agrees that during the term of this Agreement and thereafter, he (1) will keep secret and retain in the strictest confidence all Confidential Information, (2) not disclose Confidential Information to anyone except employees of the Company authorized to receive it and third parties to whom such disclosure is specifically authorized, and (3) not use any Confidential Information for any purpose other than performance of services under this Agreement without prior written permission from the Company.

(b) If Employee is served with any subpoena or other compulsory judicial or administrative process calling for production or disclosure of Confidential Information or if

Employee is otherwise required by law or regulation to disclose Confidential Information, Employee will immediately, and prior to production or disclosure, notify the Company and provide it with such information as may be necessary in order that the Company may take such action as it deems necessary to protect its interest.

(c) The provisions of this Section 6 shall survive termination of this Agreement.

7. Non-competition and Non-solicitation.

(a) For a period of one (1) year in the case of the payment of severance equal to 12 months Base Compensation and for a period of two (2) years in the case of the payment of severance equal to 24 months Base Compensation, in both instances as provided in Section 13(c) below, Employee shall not directly or indirectly engage in or have any ownership interest in, or participate in the financing, operation, management or control of, any person, firm, corporation or business that engages in any activity customarily associated with the Company's ordinary course of business at the time of such termination anywhere in the world; *provided, however*, that this provision shall not prohibit Employee from owning up to five percent (5%) of any class of outstanding bonds, preferred stock or shares of common stock of any such entity or from employment with any institute of higher learning.

(b) For a period of two (2) years following termination of employment with the Company for any reason, except with the express written consent of the Company, Employee agrees to refrain from directly or indirectly recruiting, hiring or assisting anyone else to hire, or otherwise counseling to discontinue employment with the Company, any person then employed by the Company or its subsidiaries or affiliates.

(c) In the event that the provisions of this Section 7 should ever be deemed to exceed the duration or geographic limitations or scope permitted by applicable law, then such provisions shall be reformed to the maximum time or geographic limitations or scope, as the case may be, permitted by applicable laws.

(d) The provisions of this Section 7 shall survive termination of this Agreement and the term of employment.

8. Covered Work.

(a) All rights, title and interest to any Covered Work that Employee makes or conceives (whether alone or with others) while employed by the Company, belong to the Company. This Agreement operates as an actual assignment of all rights in Covered Work to the Company. "Covered Work" means products and Inventions that relate to the actual or anticipated business of the Company or any of its subsidiaries or affiliates, or that result from or are suggested by a task assigned to Employee or work performed by Employee on behalf of the Company or any of its subsidiaries or affiliates, or that were developed in whole or in part on the Company time or using the Company's equipment, supplies or facilities. " Inventions" mean ideas, improvements, designs, computer software, technologies, techniques, processes, products, chemicals, compounds, materials,

concepts, drawings, authored works or discoveries, whether or not patentable or copyrightable, as well as other newly discovered or newly applied information or concepts. Attached hereto as Exhibit D is a description of any product or Invention in which Employee had or has any right, title or interest, which is not included within the definition of Covered Work or which is otherwise excluded from the restrictions set forth in this Section 8.

(b) Employee shall promptly reveal all information relating to Covered Work and Confidential Information to an appropriate officer of the Company and shall cooperate with the Company, and execute such documents as may be necessary, in the event that the Company desires to seek copyright, patent or trademark protection thereafter relating to same.

(c) In the event that the Company requests that Employee assist in efforts to defend any legal claims to patents or other right, the Company agrees to reimburse Employee for any reasonable expenses Employee may incur in connection with such assistance. This obligation to reimburse shall survive termination of this Agreement and the term of employment.

(d) The provisions of this Section 8 shall survive termination of this Agreement and the term of employment.

9. Return of Inventions, Products and Documents. Employee acknowledges and agrees that all Inventions, all products of the Company and all originals and copies of records, reports, documents, lists, drawings, memoranda, notes, proposals, contracts and other documentation related to the business of the Company or containing any information described in this Section 9 shall be the sole and exclusive property of the Company and shall be returned to the Company immediately upon termination of Employee's employment with the Company or upon the written request of the Company. The provisions of this Section 9 shall survive termination of this Agreement and the term of employment

10. Injunction. Employee agrees that it would be difficult to measure damages to the Company from any breach by Employee of Sections 6, 7, 8 and/or 9 of this Agreement, and that monetary damages would be an inadequate remedy for any such breach. Accordingly, Employee agrees that if Employee shall breach Sections 6, 7, 8 and/or 9 of this Agreement, the Company shall be entitled, in addition to all other remedies it may have at law or in equity, to an injunction or other appropriate orders to restrain any such breach without showing or proving any actual damage sustained by the Company. The provisions of this Section 10 shall survive termination of this Agreement and the term of employment.

11. Obligations to Others. Except for items fully disclosed in writing to the Company, Employee represents and warrants to the Company that (i) Employee's employment by the Company does not violate any agreement with any prior employer or other person or entity, and (ii) Employee is not subject to any existing confidentiality or non-competition agreement or obligation, or any agreement relating to the assignment of Inventions except as has been fully disclosed in writing to the Company.

12. Termination.

(a) Employee may voluntarily terminate his employment with the Company upon giving the Company sixty (60) days written notice.

(b) The Company may terminate Employee's employment without Cause (as defined below) upon giving Employee thirty (30) days written notice of termination.

(c) Employee's employment with the Company shall terminate upon the occurrence of any one of the following:

(i) Employee's death;

(ii) The effective date of a notice sent to Employee stating the Board's determination made in good faith and after consultation with a qualified physician selected by the Board, that Employee is incapable of performing his duties under this Agreement, with or without reasonable accommodation, because of a physical or mental incapacity that has prevented Employee from performing such full-time duties for a period of ninety (90) consecutive calendar days and the determination that such incapacity is likely to continue for at least another ninety (90) days; or

(iii) The effective date of a notice sent to Employee terminating Employee's employment for Cause.

(d) "Cause" means the occurrence of one or more of the following events:

(i) Employee's willful and repeated failure or refusal to comply in any material respect with the reasonable lawful policies, standards or regulations from time to time established by the Company, or to perform his duties in accordance with this Agreement after notice to Employee of such failure and after Employee has been given a reasonable period of time to cure such failure to comply; or

(ii) Employee engages in criminal conduct or engages in misconduct that is materially detrimental to the reputation, character or standing of the Company.

(e) Notwithstanding anything to the contrary herein, unless sooner terminated in accordance with the terms hereof, this Agreement shall automatically renew for an additional one-year term unless one party notifies the other party in accordance with Section 14 hereof of its intention not to renew, such notice to be delivered not less than 90 days before the term ends.

13. Termination Compensation.

(a) Upon Employee's voluntary termination of employment, other than voluntary termination with Good Reason (as defined below), the Company shall pay to Employee all

compensation due to the date of termination, but shall have no further obligation to Employee hereunder in respect of any period following termination.

(b) Upon the death of Employee, the Company shall pay to Employee's estate or such other party who shall be legally entitled thereto, all compensation due at the date of death, and an additional amount equal to compensation at the rate set forth in this Agreement or then current annual salary rate, whichever is greater, from the date of death to the final day of the month following the month in which the death occurs.

(c) (i) Upon termination of Employee's employment by the Company other than for Cause and other than in connection with a Change in Control, the Company shall pay to Employee twelve (12) months of Base Compensation. In addition, all nonvested Options shall immediately vest and be exercisable for a period of 180-days following the effective date of termination.

(ii) Upon termination by the Company other than for Cause in connection with a Change in Control or upon Employee's voluntary termination of employment for Good Reason, the Company shall pay to Employee twenty-four (24) months of Base Compensation. In addition, all nonvested Options shall immediately vest and be exercisable for a period of 180-days following the effective date of termination.

(d) Amounts payable under this Section 13 shall be net of amounts required to be withheld under applicable law and amounts requested to be withheld by Employee.

(e) As used herein, "Good Reason" shall mean, following a Change of Control (as such term is defined below) the termination by Employee upon the occurrence of any of the below described events. The Employee must provide notice to the Company of the existence of such event within ninety (90) days of the first occurrence of such event, and the Company will have thirty (30) days to remedy the condition, in which case no Good Reason shall exist. If the Company fails to remedy the condition within such thirty (30) day period, the Employee must terminate employment within two (2) years of the first occurrence of such event. The events which constitute a Good Reason termination are:

(i) The assignment of a different title or change that results in a material reduction in Employees duties or responsibilities;

(ii) A reduction by the Company in Employee's Base Compensation, other than a salary reduction that is part of a general salary reduction affecting employees generally and provided the reduction is not greater, percentage-wise, than the reduction affecting other employees generally or failure to provide an annual increase in Base Compensation commensurate with other Employees; *provided, however*, in determining whether to provide an annual increase in Base Compensation commensurate with an annual increase provided to other Employees, the Company may take into account factors such as market levels of compensation, Employee's overall performance, and other factors reasonably considered by the Company's

compensation committee and/or Board of Directors, so long as such determination is not made in bad faith with the intent to discriminate against Employee; or

(iii) Relocation of Employee's principal place of business of greater than seventy-five (75) miles from its then location; provided, however, the first such relocation in connection with the concurrent relocation of the Company's headquarters shall not constitute Good Reason hereunder.

As a condition of payment of the amounts set forth in this Section 13, if requested by Company Employee agrees to enter into a Separation and Release Agreement substantially in the form attached hereto as Exhibit E.

(f) As used herein, "Change of Control" means the occurrence of any one of the following events: (i) any person becomes the beneficial owner of twenty-five percent (25%) or more of the total number of voting shares of the Company; (ii) any person (other than the persons named as proxies solicited on behalf of the Board of Directors of the Company) holds revocable or irrevocable proxies representing twenty-five percent (25%) or more of the total number of voting shares of the Company; (iii) any person has commenced a tender or exchange offer, or entered into an agreement or received an option, to acquire beneficial ownership of twenty-five percent (25%) or more of the total number of voting shares of the Company; and (iv) as the result of, or in connection with, any cash tender or exchange offer, merger, or other business combination, sale of assets, or any combination of the foregoing transactions, the persons who were directors of the Company before such transactions shall cease to constitute at least two-thirds (2/3) of the Board of Directors of the Company or any successor entity.

14. Notice. Unless otherwise provided herein, any notice, request, certificate or instrument required or permitted under this Agreement shall be in writing and shall be deemed "given" upon personal delivery to the party to be notified or three business days after deposit with the United States Service, by registered or certified mail, addressed to the party to receive notice at the address set forth above, postage prepaid. Either party may change its address by notice to the other party given in the manner set forth in this Section.

15. Entire Agreement. This Agreement constitutes the entire agreement between the parties and contains all the agreements between them with respect to the subject matter hereof. It also supersedes any and all other agreements or contracts, either oral or written, between the parties with respect to the subject matter hereof; *provided, however*, in the event any of Sections 6, 7, 8, 9, or 10 of this Agreement is found enforceable in any way, then such section shall be amended to the extent necessary to conform to applicable law.

16. Modification. Except as otherwise specifically provided, the terms and conditions of this Agreement may be amended at any time by mutual agreement of the parties, provided that before any amendment shall be valid or effective, it shall have been reduced to writing and signed by an authorized representative of the Company and Employee.

17. No Waiver. The failure of any party hereto to exercise any right, power or remedy provided under this Agreement or otherwise available in respect hereof at law or in equity, or to insist upon compliance by any other party hereto with its obligations, shall not be a waiver by such party of its right to exercise any such or other right, power or remedy or to demand compliance.

18. Severability. In the event that any section or provision of this Agreement shall be held to be illegal or unenforceable, such section or provision shall be severed from this Agreement and the entire Agreement shall not fail as a result, but shall otherwise remain in full force and effect.

19. Assignment. This Agreement shall be binding upon and inure to the benefit of the Company and its successors and assigns, and shall be binding upon Employee, his administrators, executors, legatees, and heirs. In that this Agreement is a personal services contract, it shall not be assigned by Employee.

20. Dispute Resolution. Except as otherwise provided in Section 10, the Company and Employee agree that any dispute between Employee and the Company or its officers, directors, employees, or agents in their individual or Company capacity of this Agreement, shall be submitted to a mediator for nonbinding, confidential mediation. If the matter cannot be resolved with the aid of the mediator, the Company and Employee mutually agree to arbitration of the dispute. The arbitration shall be in accordance with the then-current Employment Dispute Resolution Rules of the Arbitration Service of Portland (" ASP") before an arbitrator who is licensed to practice law in the State of Oregon. The arbitration shall take place in or near Portland, Oregon. Employee and the Company will share the cost of the arbitration equally, but each will bear their own costs and legal fees associated with the arbitration; *provided, however*, if any party prevails on a statutory claim, which affords the prevailing party attorneys' fees, or if there is a written agreement providing for attorneys' fees, the arbitrator may award reasonable attorneys' fees. The Company and Employee agree that the procedures outlined in this provision are the exclusive method of dispute resolution.

21. Attorneys' Fees. In the event suit or action is instituted pursuant to Section 10 or Section 20 of this Agreement, the prevailing party in such proceeding, including any appeals thereon, shall be awarded reasonable attorneys' fees and costs.

22. Applicable Law. This Agreement shall be construed and enforced under and in accordance with the laws of the State of Oregon.

23. Section 409A.

(a) It is the intention of the parties to this Agreement that no payment or entitlement pursuant to this Agreement will give rise to any adverse tax consequences to Employee or the Company with regard to Section 409A of the Internal Revenue Code of 1986 (" Section 409A"). This Agreement shall be interpreted to that end and consistent with that objective. The Company and the Employee shall, to the extent necessary to comply with Section 409A and permitted thereunder, agree to act reasonably and in good faith to mutually reform the provisions of this Agreement to avoid the application of the additional tax and interest under Section 409A(a)(1)(B), provided that any such reformation shall not negatively impact the economics of the Company or the

Employee hereunder. Notwithstanding any other provision herein, if Employee is a "specified employee," as defined in, and pursuant to, Treasury Regulation Section 1.409A-1(i) or any successor regulation, on the date of termination, no payment of any "deferred compensation", as defined under Treasury Regulation Section 1.409A or any successor regulation, shall be made to Employee during the period lasting until the earlier of six (6) months from the date of termination or upon Employee's death. If any payment to Employee is delayed pursuant to the foregoing sentence, such payment instead shall be made on the first business day following the expiration of the six (6) month period referred to in the prior sentence or, if in the case of Employee's death, promptly thereafter.

(b) Except as otherwise specifically provided in this Agreement, if any reimbursement to which the Employee is entitled under this Agreement would constitute deferred compensation subject to Section 409A of the Code, the following additional rules shall apply: (i) the reimbursable expense must have been incurred, except as otherwise expressly provided in this Agreement, during the term of this Agreement; (ii) the amount of expenses eligible for reimbursement during any calendar year will not affect the amount of expenses eligible for reimbursement in any other calendar year; (iii) the reimbursement shall be made not later than December 31 of the calendar year following the calendar year in which the expense was incurred; and (iv) the Employee's entitlement to reimbursement shall not be subject to liquidation or exchange for another benefit.

(c) With regard to any installment payment, each installment thereof shall be deemed a separate payment for purposes of Section 409A of the Code.

24. Counterparts. This Agreement may be signed in two counterparts, each of which shall be deemed an original and both of which shall together constitute one agreement.

IN WITNESS WHEREOF, AVI BioPharma, Inc. has caused this Agreement to be signed by its duly authorized representative, and Employee has hereunder set his name as of the date of this Agreement.

COMPANY: AVI BioPharma, Inc.

By: /s/ Leslie Hudson
Leslie Hudson, PhD, Chief Executive Officer

EMPLOYEE:

/s/ J. David Boyle II
J. David Boyle II

Exhibit A

List of Offices Held

11 – EMPLOYMENT AGREEMENT (Boyle)

Exhibit B

2002 Equity Incentive Plan

12 – EMPLOYMENT AGREEMENT (Boyle)

Exhibit C

Form Of Stock Option Agreement

13 – EMPLOYMENT AGREEMENT (Boyle)

Exhibit D

Inventions Excluded from Covered Works

14 – EMPLOYMENT AGREEMENT (Boyle)

Exhibit E

SEPARATION AND RELEASE AGREEMENT

THIS SEPARATION AND RELEASE AGREEMENT ("Agreement") is between J. David Boyle II ("Employee") and AVI BioPharma, Inc. ("Employer"), and is effective eight (8) days after Employee signs this Agreement ("Effective Date").

The parties agree as follows:

1. **Resignation**. Employee resigned his position as Employer's [Title] effective [effective date of termination] (the "Resignation Date"). Employee has been paid his salary and other compensation through the Resignation Date, less all lawful or required deductions.

2. **Consideration**. In consideration of Employee's agreements hereunder, Employer shall pay to Employee the amounts set forth and described in that certain Employment Agreement dated effective the __ day of _____, 2008.

3. **Return of Employer Property**. Employee represents that he has returned all Employer property in his possession or under his control, including but not limited to keys, credit cards, files, laptop computer and any and all Employer documents.

4. **Confidentiality**. The parties will use reasonable efforts to keep the terms of this Agreement confidential. Employee may disclose the terms of this Agreement to his immediate family. Employer may disclose the terms of this Agreement to its officers and managers. Either party may disclose the terms of this Agreement to their respective attorneys, accountants, financial advisers, auditors, or similar advisors, or in response to government requests. Third persons informed of the terms of this Agreement shall in turn be advised of this confidentiality provision and requested to maintain such confidentiality.

5. **Release**.

5.1 In exchange for the consideration paid to Employee as set forth in this Agreement, Employee forever releases and discharges Employer, any of Employer-sponsored employee benefit plans in which Employee participates, or was participating in, (collectively the " Plans") and all of their respective officers, members, managers, partners, directors, trustees, agents, employees, and all of their successors and assigns (collectively " Releasees") from any and all claims, actions, causes of action, rights, or damages, including costs and attorneys' fees (collectively " Claims") which Employee may have arising out of his employment (including Claims that may arise out of Employee's employment agreement), on behalf of himself, known, unknown, or later discovered which arose prior to the date Employee signs this Agreement. This release includes but is not limited to, any Claims under any local, state, or federal laws prohibiting discrimination in employment, including without limitation the federal civil rights acts, Oregon Revised Statutes Chapter 659A, the Americans with Disabilities Act, the Age Discrimination in Employment Act, or Claims under the Employee Retirement Income Security Act, or Claims alleging any legal restriction

on Employer's right to terminate its employees, any Claims Employee has relating to his rights to or against any of the Plans, or personal injury Claims, including without limitation wrongful discharge, breach of contract, defamation, tortious interference with business expectancy, constructive discharge, or infliction of emotional distress. Employee represents that he has not filed any Claim against Employer or its Releasees, he has no knowledge of any facts that would support any Claim by Employee against Employer or by a third party against Employer, and that he will file a Claim at any time in the future concerning Claims released in this Agreement; provided, however, that this will not limit Employee from filing a Claim to enforce the terms of this Agreement. Notwithstanding the foregoing, nothing herein shall constitute release of any of Employee's rights relating to vested options, vested benefits or vested entitlements under the Company's employee benefits plans, including equity incentive and retirement plans.

5.2 In consideration of the promises of Employee as set forth herein, Employer does hereby, and for its successors and assigns, release, acquit and forever discharge Employee from any and all actions, causes of action, obligations, costs, expenses, damages, losses, claims, liabilities, suits, debts, and demands (including attorneys' fees and costs actually incurred), of whatever character in law or in equity known or unknown, suspected or unsuspected, from the beginning of time to the date of execution hereof.

6. **Non-disparagement**. Employee and Employer each agree not to make disparaging statements about each other, except in the case of Employer statements that are required under applicable federal or state securities laws or applicable rules and regulations of any exchange on which Employer's stock is traded.

7. **Consideration and Revocation Periods**. Employee understands and acknowledges the significance and consequences of this Agreement, that it is voluntary, that it has not been given as a result of any coercion, and expressly confirms that it is to be given full force and effect according to all of its terms, including those relating to unknown Claims. Employee was hereby advised of his right to seek the advice of an attorney prior to signing this Agreement. Employee acknowledges that he has signed this Agreement only after full reflection and analysis. Although he is free to sign this Agreement before then, Employee acknowledges he was given at least 21 days after receipt of this document in which to consider it (the " Consideration Period"). If Employee executes this Agreement prior to the end of the Consideration Period, Employee hereby waives any rights associated therewith. Employee may revoke this Agreement seven (7) days after signing it and forfeit all benefits described in Section 2 of this Agreement. Employee and Employer agree that any changes made to this Agreement during the Consideration Period as a result of negotiations between the parties do not restart the running of the Consideration Period.

8. **No Liability**. This Agreement shall not be construed as an admission by either party that it acted wrongfully with respect to the other.

9. **Severability**. If any of the provisions of this Agreement are held to be invalid or unenforceable, the remaining provisions will nevertheless continue to be valid and enforceable.

10. **Entire Agreement**. This Agreement represents and contains the entire understanding between the parties in connection with its subject matter. All other prior written or oral agreements or understandings are merged into and superseded by this Agreement. Employee acknowledges that in signing this Agreement, he has not relied upon any representation or statement not set forth in this Agreement made by Employer or any of its representatives.

11. **Attorney Fees**. If any suit or action is filed by either party to enforce this Agreement or otherwise with respect to the subject matter hereof, the prevailing party shall be entitled to recover reasonable attorney fees incurred in preparation or in prosecution or defense of such suit or action as fixed by the trial court, and if any appeal is taken from the decision of the trial court, reasonable attorney fees as fixed by the appellate court.

12. **Choice of Law**. This Agreement is made and shall be construed and performed under the laws of the State of Oregon.

PLEASE READ CAREFULLY. THIS AGREEMENT INCLUDES A RELEASE OF CERTAIN KNOWN OR UNKNOWN CLAIMS.

Dated this __ day of ____, 200X.

AVI BioPharma, Inc.

By: _____
Name:
Title:

Dated this __ day of ____, 200X.

_____
J. David Boyle II

Exhibit 10.11

AMENDMENT NO. 1
TO
EMPLOYMENT AGREEMENT

This Amendment No. 1 to Employment Agreement (the " Amendment") is entered into effective the 1st day of August, 2008 (the "Effective Date") by and between AVI BioPharma, Inc., an Oregon corporation ("Company") and J. David Boyle II ("Employee").

RECITALS

A. Whereas, Company and Employee are parties to that certain Employment Agreement dated the 24th day of July, 2008, a copy of which is attached hereto as Exhibit A (the "Employment Agreement").

B. Whereas, the Company and the Employee desire to amend certain provisions of the Employment Agreement.

Now, therefore, in consideration of the representations, warranties and covenants contained herein, the Company and the Employee agree as follows:

AGREEMENT

1. Section 3(c) of the Employment Agreement shall be amended and restated to provide as follows:

(c) Equity Compensation.

(i) On the date the Employee commences employment with the Company, the Employee will be granted options to purchase Three Hundred Fifty Thousand (350,000) shares of the Company's common stock (the " Standard Options") under the Company's 2002 Equity Incentive Plan (the "Plan"), with an exercise price at the fair market value of the Company common stock on the Effective Date. Subject to accelerated vesting or termination as set forth herein, the Standard Options shall vest in equal annual installments over three (3) years.

(ii) In addition, on the date the Employee commences employment with the Company, the Employee will be granted options to purchase an additional One Hundred Fifty Thousand (150,000) options (the "Performance Options" and, together with the Standard Options, the "Options") under the Plan with an exercise price at the fair market value of the Company common stock on the Effective Date. The Performance Options shall vest in the event that the Company closes an equity financing transaction on or before December 31, 2008 in which the Company raises gross proceeds of not less than $15.00MM with an implied equity value of the Company pre-closing of not less than $2.50 per share (a " Qualified Financing"). Notwithstanding anything to the contrary

herein, in the event that the effect of an event that constitutes a Change in Control (as such term is defined in Section 13(f) hereof) denies or would reasonably be expected to deny Employee the opportunity to achieve the vesting milestone set forth in this Section 3(c)(ii), the Performance Options shall fully vest upon the effective date of the Change in Control.

(iii) The exercise price of the Options and all other terms and conditions associated with the Options shall be determined in accordance with the Plan and grants (the forms of which are annexed hereto as Exhibit B and Exhibit C, respectively). To the maximum extent possible, the Options shall be Incentive Stock Options.

2. Section 23 of the Employment Agreement shall be amended and restated to provide as follows:

Section 409A; Section 280G

(a) Section 409A

(i) It is the intention of the parties to this Agreement that no payment or entitlement pursuant to this Agreement will give rise to any adverse tax consequences to Employee or the Company with regard to Section 409A (" Section 409A") of the Internal Revenue Code of 1986 (the "Code"). This Agreement shall be interpreted to that end and consistent with that objective. The Company and the Employee shall, to the extent necessary to comply with Section 409A and permitted thereunder, agree to act reasonably and in good faith to mutually reform the provisions of this Agreement to avoid the application of the additional tax and interest under Section 409A(a)(1)(B), provided that any such reformation shall not negatively impact the economics of the Company or the Employee hereunder. Notwithstanding any other provision herein, if Employee is a "specified employee," as defined in, and pursuant to, Treasury Regulation Section 1.409A-1(i) or any successor regulation, on the date of termination, no payment of any "deferred compensation", as defined under Treasury Regulation Section 1.409A or any successor regulation, shall be made to Employee during the period lasting until the earlier of six (6) months from the date of termination or upon Employee's death. If any payment to Employee is delayed pursuant to the foregoing sentence, such payment instead shall be made on the first business day following the expiration of the six (6) month period referred to in the prior sentence or, if in the case of Employee's death, promptly thereafter.

(ii) Except as otherwise specifically provided in this Agreement, if any reimbursement to which the Employee is entitled under this Agreement would constitute deferred compensation subject to Section 409A of the

Code, the following additional rules shall apply: (i) the reimbursable expense must have been incurred, except as otherwise expressly provided in this Agreement, during the term of this Agreement; (ii) the amount of expenses eligible for reimbursement during any calendar year will not affect the amount of expenses eligible for reimbursement in any other calendar year; (iii) the reimbursement shall be made not later than December 31 of the calendar year following the calendar year in which the expense was incurred; and (iv) the Employee's entitlement to reimbursement shall not be subject to liquidation or exchange for another benefit.

(iii) With regard to any installment payment, each installment thereof shall be deemed a separate payment for purposes of Section 409A of the Code.

(b) Section 280G

(i) Except as provided below, the payments or benefits to which Employee will be entitled under Section 13 of the Agreement will be reduced to the extent necessary so that Employee will not be liable for the federal excise tax levied on certain "excess parachute payments" under section 4999 of the Internal Revenue Code of 1986, as amended (" Code").

(ii) The limitation above will not apply if:

(1) the difference between

(A) the present value of all payments to which Employee is entitled under Section 13 of the Agreement determined without regard to the limitation above, less

(B) the present value of all federal, state, and other income and excise taxes for which Employee is liable as a result of such payments; exceeds

(2) the difference between

(A) the present value of all payments to which Employee is entitled under Section 13 of the Agreement calculated as if the limitation above applies, less

(B) the present value of all federal, state, and other income and excise taxes for which Employee is liable as a result of such reduced payments.

(iii) Present values will be determined using the interest rate specified in section 280G of the Code and will be the present values as of the date on which Employee's employment terminates (unless it is necessary to use a different date in order to avoid adverse consequences under section 280G).

3. In all other respects, the Employment Agreement shall remain unchanged and in full force and effect.

IN WITNESS WHEREOF, the parties have executed this Amendment effective the date first set forth above.

DATED the 15th day of August, 2008.

AVI BioPharma, Inc.

By: /s/ Leslie Hudson
Name: Leslie Hudson, PhD
Title: Chief Executive Officer

DATED the 6th day of August, 2008.

/s/ J. David Boyle II
J. David Boyle II

Exhibit 10.12

AMENDMENT NO. 2
TO
EMPLOYMENT AGREEMENT

This Amendment No. 2 to Employment Agreement (the " Amendment") is entered into effective the day of 3rd day of November, 2009 (the "Effective Date") by and between AVI BioPharma, Inc., an Oregon corporation ("Company") and J. David Boyle II ("Employee").

RECITALS

A. Whereas, Company and Employee are parties to that certain Employment Agreement dated the 24 th day of July, 2008, as amended by Amendment No. 1 to Employment Agreement entered into effective the 1st day of August, 2008, copies of which are attached hereto as Exhibit A (the "Employment Agreement").

B. Whereas, the Company and the Employee desire to add a provision to the Employment Agreement related to Section 280G of the Internal Revenue Code of 1986, as amended.

Now, therefore, in consideration of the representations, warranties and covenants contained herein, the Company and the Employee agree as follows:

AGREEMENT

1. Section 23(b)(iv) is hereby added to the Employment Agreement, and shall state in its entirety as follows:

"(iv) As a result of the uncertainty in the application of Section 280G and 4999 of the Code, it is possible that, despite the limitations on parachute payments provided in this Section 23, amounts may be paid or distributed by the Company to or for the benefit of the Employee under this Agreement or otherwise which are treated as excess parachute payments. In the event that any payments received by the Employee are determined by the IRS to be subject to the federal excise tax under Section 4999 of the Code (the " Excise Tax"), the Company shall pay the Employee as promptly as possible following such determination (but in no event later than the end of the Employee's taxable year in which the Employee remits the related taxes) an additional amount which may be necessary to reimburse the Employee on an after-tax basis for any Excise Tax that may be imposed on such excess parachute payments and for any interest and penalties related to such Excise Tax that may be imposed by the IRS or a court. In addition, the Company shall indemnify and hold the Employee harmless, on an after-tax basis, from and against any and all losses, costs, damages or expenses (including reasonable attorneys' and accountants fees) arising out of the imposition on Employee of any Excise Tax."

2. In all other respects, the Employment Agreement shall remain unchanged and in full force and effect.

IN WITNESS WHEREOF, the parties have executed this Amendment effective the date first set forth above.

AVI BioPharma, Inc.

By:	/s/ Leslie Hudson	/s/ J. David Boyle II
Name:	Leslie Hudson, Ph.D.	J. David Boyle II
Title:	Chief Executive Officer	

EXHIBIT A

Employment Agreement and Amendment No. 1 to Employment Agreement

Previously Filed

Exhibit 10.14

AMENDMENT NO. 1
TO
EMPLOYMENT AGREEMENT

This Amendment No. 1 to Employment Agreement (the " Amendment") is entered into effective the 16th day of October, 2009 (the "Effective Date") by and between AVI BioPharma, Inc., an Oregon corporation ("Company") and Stephen Bevan Shrewsbury, MD ("Employee").

RECITALS

A. Whereas, Company and Employee are parties to that certain Employment Agreement dated the 26 th day of January, 2009, a copy of which is attached hereto as Exhibit A (the "Employment Agreement").

B. Whereas, the Company and the Employee desire to add a provision to the Employment Agreement related to Section 280G of the Internal Revenue Code of 1986, as amended.

Now, therefore, in consideration of the representations, warranties and covenants contained herein, the Company and the Employee agree as follows:

AGREEMENT

1. Section 23(d)(iv) is hereby added to the Employment Agreement, and shall state in its entirety as follows:

"(iv) As a result of the uncertainty in the application of Section 280G and 4999 of the Code, it is possible that, despite the limitations on parachute payments provided in this Section 23, amounts may be paid or distributed by the Company to or for the benefit of the Employee under this Agreement or otherwise which are treated as excess parachute payments. In the event that any payments received by the Employee are determined by the IRS to be subject to the federal excise tax under Section 4999 of the Code (the " Excise Tax"), the Company shall pay the Employee as promptly as possible following such determination (but in no event later than the end of the Employee's taxable year in which the Employee remits the related taxes) an additional amount which may he necessary to reimburse the Employee on an after-tax basis for any Excise Tax that may be imposed on such excess parachute payments and for any interest and penalties related to such Excise Tax that may be imposed by the IRS or a court. In addition, the Company shall indemnify and hold the Employee harmless, on an after-tax basis, from and against any and all losses, costs, damages or expenses (including reasonable attorneys' and accountants fees) arising out of the imposition on Employee of any Excise Tax."

2. In all other respects, the Employment Agreement shall remain unchanged and in full force and effect.

IN WITNESS WHEREOF, the parties have executed this Amendment effective the date first set forth above.

AVI BioPharma, Inc.

By:	/s/ Leslie Hudson	/s/ Stephen Bevan Shrewsbury
Name:	Leslie Hudson, Ph.D.	Stephen Bevan Shrewsbury, MD
Title:	Chief Executive Officer	

Exhibit 10.15

EMPLOYMENT AGREEMENT

THIS EMPLOYMENT AGREEMENT ("Agreement") is made on this 15 th day of May, 2009, by and between AVI BioPharma, Inc., an Oregon corporation, with its principal office at 4575 SW Research Way, Suite 200, Corvallis, Oregon, ("Company"), and Paul Medeiros, 700 Mixsell Street, Easton, Pennsylvania 18042 ("Employee").

RECITALS:

The Company desires to hire the Employee as Senior Vice President Business Development and Chief Business Officer and the Employee desires to accept such position under the terms and conditions stated herein.

NOW, THEREFORE, in consideration of the mutual benefits contained herein, the sufficiency of which the parties acknowledge, the parties hereby agree as follows:

AGREEMENT:

1. Employment Term.

The term of employment ("Term") shall commence on the Effective Date and shall continue until the first anniversary of the Effective Date, unless extended as provided below or terminated in accordance with Section 12 below. This Agreement establishes an "at will" employment relationship, as such term is defined and used under Oregon law, between the Company and the Employee. Employee shall commence employment not later than May 19, 2009 (the "Effective Date"). Failure to do so shall be grounds for immediate termination for Cause, as such term is defined in Section 12 hereof. Notwithstanding anything to the contrary herein, unless sooner terminated in accordance with the terms hereof, this Agreement shall annually automatically renew for additional one-year terms unless one party notifies the other party in accordance with Section 13 hereof of its intention not to renew, such notice to be delivered not less than 90 days before the term ends. For purposes of this Agreement, the non-renewal of the Agreement by the Company shall constitute a termination of Employee's employment by the Company other than for Cause.

2. Duties.

Employee shall be employed as Senior Vice President Business development and Chief Business Officer and shall have such duties as are customarily associated with that position, including overall responsibility for development and execution of strategies and tactics for transactions, alliances, mergers and acquisitions that are agreed with the Corporate Executive Team and CEO, and such other duties as may be assigned to him from time to time by the Company's Chief Executive Officer ("CEO"). Employee shall be a direct report of the CEO. Employee shall devote substantially all of his business time to the service of the Company throughout the Term. Employee and Company acknowledge and agree that (i) Employee may hold certain offices within certain entities as agreed by the

CEO and set forth on Exhibit A to this Agreement, (ii) Employee's devotion of reasonable amounts of time in such capacities, so long as it does not interfere with his performance of services hereunder, shall not conflict with the terms of this Agreement, and (iii) Exhibit A may be amended from time to time by agreement of the parties rendered in writing.

3. Compensation.

(a) Base Compensation. During the Term the Company shall compensate the Employee at an initial annual salary of Three Hundred Fifteen Thousand Dollars ($315,000.00), payable in accordance with the Company's payroll practices in effect from time to time, and less amounts required to be withheld under applicable law and requested to be withheld by the Employee (as increased from time to time, "Base Compensation"). The Employee's Base Compensation shall be subject to review for potential increase (but not decrease) on an annual basis. Except as otherwise provided in this Agreement, the Base Compensation shall be prorated for any period of service less than a full month.

(b) Bonus. For each fiscal year of the Company that ends during the Term, the Employee shall be eligible for an annual bonus of up to 25% of Employee's Base Compensation, which bonus shall be paid in the normal cycle of payment of executive bonuses (which bonus payment shall occur in the first quarter of the fiscal year following the fiscal year with respect to which the bonus is earned) and upon achievement and satisfaction of goals and objectives ("Goals and Objectives") established upon mutual agreement of the CEO, Employee and the Compensation Committee of the Company's Board. Such goals shall be established concurrently with the goals and objectives of the Company's other senior executives. Notwithstanding anything to the contrary herein, Employee's bonus for 2009 will be a guaranteed $50,000 and in order to receive any bonus under this Section 3(b) Employee must be an employee of the Company at the time of the bonus payout.

(c) Equity Compensation.

(i) On the Effective Date, the Employee will be granted options to purchase Four Hundred Thousand (400,000) shares of the Company's common stock (the "Options") under the Company's 2002 Equity Incentive Plan (the "Plan") (a copy of which is attached as Exhibit B), with an exercise price at the fair market value of the Company common stock on the date Effective Date. Subject to accelerated vesting or termination as set forth herein, the Standard Options shall vest in equal annual installments over three (3) years measured from the Effective Date.

(ii) In addition, on the Effective Date, Employee will be issued One Hundred Thousand (100,000) shares of restricted stock under the Plan (the "Restricted Shares"). The Restricted Shares shall vest as follows:

through the first anniversary of the Effective Date (a) in a pro rata basis upon execution by the Company of any licensing agreements or similar alliance

transactions which generate upfront payments to the Company of a minimum of $10 million and a maximum of $20 million in aggregate payments in this period; and (b) 100% upon any Change of Control. By way of illustration and not limitation, in the event that the aggregate payments referenced above total $10 million, no Restricted Shares would vest; if such payments total $15 million, 50,000 Restricted Shares would vest; if such payments total $18 million, 80,000 Restricted Shares would vest; and if such payments total $20 million or more, 100,000 Restricted Shares would vest

(iii) The exercise price of the Options and all other terms and conditions associated with the Options and Restricted Shares shall be determined in accordance with the Plan and grants (the forms of which are annexed hereto as Exhibit C and Exhibit D, respectively). To the maximum extent possible, the Options shall be Incentive Stock Options.

(d) Additional Compensation. Within 10 business days of the Effective Date, the Company will pay the Employee a $100,000 sign-on bonus. Should the Employee separate from the Company prior to the one year anniversary of the Effective Date for reasons of termination for Cause or voluntary termination by the Employee other than for Good Reason, this sign-on bonus is refundable to Company in full.

4. Expenses.

The Company will reimburse Employee for all expenses reasonably incurred by him in discharging his duties for the Company, conditioned upon Employee's submission of written documentation in support of claimed reimbursement of such expenses, and consistent with the Company's expense reimbursement policies in effect from time to time. The Company will reimburse the Employee in 2010 up to One Hundred Twenty Thousand Dollars ($120,000) for reasonable expenses incurred in 2009 and 2010 to relocate Employee, Employee's spouse and parts of Employee's and Employee's Spouse's household in a manner compatible with Employee's duties hereunder to the Company's headquarters location ("Facility Location"), including the reasonable and customary costs of selling his Pennsylvania residence (but not vacant home carrying costs), shipment of personal effects to the Facility Location, and the customary closing costs associated with the purchase of a residence in the Facility Location. In addition, Company shall reimburse Employee (or pay on Employee's behalf) rent and related living expenses, not to exceed $2,500 per month in the aggregate and up to six (6) months in duration, for temporary living arrangements and up to $5,000 for reasonable attorneys' fees incurred in negotiation of this Agreement.

5. Benefits.

Subject to eligibility requirements, Employee shall be entitled to participate in such benefits plans and programs as adopted by the Company from time to time and shall be eligible for paid vacation of four (4) business weeks (20 business days) annually; provided, however, if Employee does not use all available vacation in any given year, Employee may roll-over up to one business week (5 business days) to the following year, the parties intending that Employee shall have a maximum of five (5) business weeks (25 business days) of paid vacation in any calendar year following 2009. Notwithstanding anything to the contrary herein, Employee shall receive 15 days paid vacation in 2009, available as of the Effective Date. Without limiting the foregoing, subject to eligibility requirements, Employee shall be covered by any "directors and officers" insurance and "errors and omissions" insurance policies obtained by the Company.

6. Confidentiality.

As a condition to employment under this Agreement, Employee and the Company shall enter into the Non-Disclosure Agreement in the form attached hereto as Exhibit E. The provisions of this Section 6 shall survive termination of this Agreement and term of employment.

7. Non-competition and Non-solicitation.

(a) For a period of one (1) year in the case of the payment of severance equal to 12 months Base Compensation and for a period of two (2) years in the case of the payment of severance equal to 24 months Base Compensation, in both instances as provided in Section 12 below, Employee shall not directly or indirectly engage in or have any ownership interest in, or participate in the financing, operation, management or control of, any person, firm, corporation or business listed on Exhibit F (as such shall be amended in the event that the Company enters into a material transaction with an entity not listed on Exhibit F and as shall be amended from time to time by mutual consent of Employee and the Company); *provided, however*, that this provision shall not prohibit Employee from owning up to five percent (5%) of any class of outstanding bonds, preferred stock or shares of common stock of any such entity or from employment with any institute of higher learning.

(b) For a period of two (2) years following termination of employment with the Company for any reason, except with the express written consent of the Company, Employee agrees to refrain from directly or indirectly recruiting, hiring or assisting anyone else to hire, or otherwise counseling to discontinue employment with the Company, any person then employed by the Company or its subsidiaries or affiliates; *provided, however*, nothing herein shall prevent Employee from providing, in accordance with Company policy, details regarding the employment history of any such person or providing an employment reference with respect to such person.

(c) In the event that the provisions of this Section 7 should ever be deemed to exceed the duration or geographic limitations or scope permitted by applicable law, then

such provisions shall be reformed to the maximum time or geographic limitations or scope, as the case may be, permitted by applicable laws.

(d) The provisions of this Section 7 shall survive termination of this Agreement and the term of employment.

8. Covered Work.

(a) All rights, title and interest to any Covered Work that Employee makes or conceives (whether alone or with others) while employed by the Company, belong to the Company. This Agreement operates as an actual assignment of all rights in Covered Work to the Company. "Covered Work" means products and Inventions that relate to the actual or anticipated business of the Company or any of its subsidiaries or affiliates, or that result from or are suggested by a task assigned to Employee or work performed by Employee on behalf of the Company or any of its subsidiaries or affiliates, or that were developed in whole or in part on the Company time or using the Company's equipment, supplies or facilities. "Inventions" mean ideas, improvements, designs, computer software, technologies, techniques, processes, products, chemicals, compounds, materials, concepts, drawings, authored works or discoveries, whether or not patentable or copyrightable, as well as other newly discovered or newly applied information or concepts. Attached hereto as Exhibit G is a description of any product or Invention in which Employee had or has any right, title or interest, which is not included within the definition of Covered Work or which is otherwise excluded from the restrictions set forth in this Section 8.

(b) Employee shall promptly reveal all information relating to Covered Work and Confidential Information to an appropriate officer of the Company and shall cooperate with the Company, and execute such documents as may be necessary, in the event that the Company desires to seek copyright, patent or trademark protection thereafter relating to same.

(c) In the event that the Company requests that Employee assist in efforts to defend any legal claims to patents or other right, the Company agrees to reimburse Employee for any reasonable expenses Employee may incur in connection with such assistance. This obligation to reimburse shall survive termination of this Agreement and the term of employment.

(d) The provisions of this Section 8 shall survive termination of this Agreement and the term of employment.

9. Return of Inventions, Products and Documents.

Employee acknowledges and agrees that all Inventions, all products of the Company and all originals and copies of records, reports, documents, lists, drawings, memoranda, notes, proposals, contracts and other documentation related to the business of the Company or containing any information described in this Section 9 shall be the sole and exclusive property of the Company and shall be returned to the Company immediately

upon termination of Employee's employment with the Company or upon the written request of the Company. The provisions of this Section 9 shall survive termination of this Agreement and the term of employment

10. Injunction.

Employee agrees that it would be difficult to measure damages to the Company from any breach by Employee of Sections 6, 7, 8 and/or 9 of this Agreement, and that monetary damages would be an inadequate remedy for any such breach. Accordingly, Employee agrees that if Employee shall breach Sections 6, 7, 8 and/or 9 of this Agreement, the Company shall be entitled, in addition to all other remedies it may have at law or in equity, to an injunction or other appropriate orders to restrain any demonstrated breach without showing or proving any actual damage sustained by the Company. The provisions of this Section 10 shall survive termination of this Agreement and the term of employment.

11. Obligations to Others.

Except for items fully disclosed in writing to the Company (including with respect to the entities and agreements listed on Exhibit H), Employee represents and warrants to the Company that (i) Employee's employment by the Company does not violate any agreement with any prior employer or other person or entity, and (ii) Employee is not subject to any existing confidentiality or non-competition agreement or obligation, or any agreement relating to the assignment of Inventions except as has been fully disclosed in writing to the Company. Notwithstanding anything to the contrary, if any agreement listed on Exhibit H shall interfere or limit in any material manner the performance of Employee's duties hereunder, prior to commencement of employment Employee shall disclose the material terms of such agreements to Company.

12. Termination and Termination Compensation

(a) Employee may voluntarily terminate his employment with the Company upon giving the Company sixty (60) days written notice.

(b) The Company may terminate Employee's employment without Cause (as defined below) upon giving Employee thirty (30) days written notice of termination.

(c) Employee's employment with the Company shall terminate upon the occurrence of any one of the following:

(i) Employee's death;

(ii) The effective date of a notice sent to Employee stating the Board's determination made in good faith and after consultation with a qualified physician selected by the Board, that Employee is incapable of performing his duties under this Agreement, with reasonable accommodation, because of a physical or mental incapacity that has prevented Employee from performing such full-time duties for a period of ninety (90) consecutive calendar days and

the determination that such incapacity is likely to continue for at least another ninety (90) days; *provided, however*, termination under this Section 12(c)(ii) shall not affect Employee's eligibility nor modify the terms and conditions under the Company's long term disability policies, if any, existing at the time of such termination; or

(iii) The effective date of a notice sent to Employee terminating Employee's employment for Cause.

(iv) "Cause" means the occurrence of one or more of the following events:

(A) Employee's willful and repeated failure or refusal to comply in any material respect with the reasonable lawful policies, standards or regulations from time to time established by the Company, or to perform his duties in accordance with this Agreement after notice to Employee of such failure and after Employee has been given a reasonable period of time to cure such failure to comply; or

(B) Employee is convicted of, or pleads guilty or nolo contendere to, a felony or demonstrably engages in misconduct that is materially detrimental to the reputation, character or standing of the Company.

(v) Following any termination of the Employee's employment hereunder (by the Employee or by the Company), the Employee will be entitled to receive (i) any earned but unpaid Base Compensation through the date of termination, (ii) any unreimbursed business expenses, (iii) any benefits under the Company's compensation plan that by their terms provide for cash payments of accrued but unused benefits and under applicable law (collectively, the "Accrued Obligations").

(vi) Upon Employee's voluntary termination of employment, other than voluntary termination with Good Reason (as defined below), or upon termination of employment by the Company for Cause, the Company shall pay to Employee the Accrued Obligations, but shall have no further obligation to Employee hereunder in respect of any period following termination.

(vii) Upon the death of Employee, the Company shall pay to Employee's estate or such other party who shall be legally entitled thereto, the Accrued Obligations and an additional amount equal to compensation at the rate set forth in this Agreement or then current annual salary rate, whichever is greater, from the date of death to the final day of the month following the month in which the death occurs.

(viii) (A) Upon termination of Employee's employment by the Company other than for Cause and other than in connection with or after a Change in Control, in addition to the Accrued Obligations, the Company shall pay to

Employee twelve (12) months of Base Compensation, with such payment to be made in a lump sum payment within sixty (60) days of such termination of employment. In addition, all nonvested Options, Restricted Stock Units and other long term compensation benefits then in effect shall immediately vest and be exercisable for a period of 180-days following the effective date of termination.

(B) Upon termination by the Company other than for Cause in connection with or after a Change in Control or upon Employee's voluntary termination of employment for Good Reason in connection with or within twenty-four (24) months after a Change of Control, in addition to the Accrued Obligations, the Company shall pay to Employee twenty-four (24) months of Base Compensation, with such payment to be made in a lump sum payment within sixty (60) days of such termination of employment. In addition, all nonvested Options, Restricted Stock Units and other long term compensation benefits then in effect shall immediately vest and be exercisable for a period of 180-days following the effective date of termination.

(ix) Any amounts payable under this Section 12 shall be net of amounts required to be withheld under applicable law and amounts requested to be withheld by Employee.

(x) As used herein, "Good Reason" shall mean, following a Change of Control (as such term is defined below), the termination by Employee upon the occurrence of any of the below described events. The Employee must provide notice to the Company of the existence of such event within ninety (90) days of the first occurrence of such event, and the Company will have thirty (30) days to remedy the condition, in which case no Good Reason shall exist. If the Company fails to remedy the condition within such thirty (30) day period, the Employee must terminate employment within two (2) years of the first occurrence of such event. The events which constitute a Good Reason termination are:

(A) The assignment of a different title or change that results in a material reduction in Employees duties or responsibilities;

(B) A reduction by the Company in Employee's Base Compensation, other than a salary reduction that is part of a general salary reduction affecting employees generally and provided the reduction is not greater, percentage-wise, than the reduction affecting other employees generally or failure to provide an annual increase in Base Compensation commensurate with other Employees; provided, however, in determining whether to provide an annual increase in Base Compensation commensurate with an annual increase provided to other Employees, the Company may take into account factors such as market levels of compensation, Employee's overall performance, and other factors reasonably considered by the

Company's compensation committee and/or Board of Directors, so long as such determination is not made in bad faith with the intent to discriminate against Employee; or

(C) Relocation of Employee's principal place of business of greater than seventy-five (75) miles from its then location; *provided, however*, the current relocation of the Company's headquarters to the Seattle, Washington metropolitan area shall not constitute Good Reason hereunder.

(xi) As a condition of payment of the amounts set forth in this Section 12, if requested by Company with five (5) business days of the Employee's termination of employment, Employee agrees to enter into a Separation and Release Agreement substantially in the form attached hereto as Exhibit I. By way of clarification and not limitation, if no separation payments are made under this Section 12, Employee shall not be required to execute a Separation and Release Agreement

(xii) As used herein, "Change of Control" means the occurrence of any one of the following events: (i) any person becomes the beneficial owner of twenty-five percent (25%) or more of the total number of voting shares of the Company; (ii) any person (other than the persons named as proxies solicited on behalf of the Board of Directors of the Company) holds revocable or irrevocable proxies representing twenty-five percent (25%) or more of the total number of voting shares of the Company; (iii) any person has commenced a tender or exchange offer, or entered into an agreement or received an option, to acquire beneficial ownership of twenty-five percent (25%) or more of the total number of voting shares of the Company; and (iv) as the result of, or, in connection with, any cash tender or exchange offer, merger, or other business combination, sale of assets, or any combination of the foregoing transactions, the persons who were directors of the Company before such transactions shall cease to constitute at least two-thirds (2/3) of the Board of Directors of the Company or any successor entity.

13. Notice.

Unless otherwise provided herein, any notice, request, certificate or instrument required or permitted under this Agreement shall be in writing and shall be deemed "given" upon personal delivery to the party to be notified or two business days after deposit for next day delivery with Federal Express or similar courier service, addressed to the party to receive notice at the address set forth above, postage prepaid. Either party may change its address by notice to the other party given in the manner set forth in this Section.

14. Entire Agreement.

This Agreement constitutes the entire agreement between the parties and contains all the agreements between them with respect to the subject matter hereof. It also

supersedes any and all other agreements or contracts, either oral or written, between the parties with respect to the subject matter hereof; *provided, however*, in the event any of Sections 6, 7, 8, 9, or 10 of this Agreement is found unenforceable in any way, then such section shall be amended to the extent necessary to conform to applicable law.

15. Modification.

Except as otherwise specifically provided, the terms and conditions of this Agreement may be amended at any time by mutual agreement of the parties, provided that before any amendment shall be valid or effective, it shall have been reduced to writing and signed by an authorized representative of the Company and Employee.

16. No Waiver.

The failure of any party hereto to exercise any right, power or remedy provided under this Agreement or otherwise available in respect hereof at law or in equity, or to insist upon compliance by any other party hereto with its obligations, shall not be a waiver by such party of its right to exercise any such or other right, power or remedy or to demand compliance.

17. Severability.

In the event that any section or provision of this Agreement shall be held to be illegal or unenforceable, such section or provision shall be severed from this Agreement and the entire Agreement shall not fail as a result, but shall otherwise remain in full force and effect.

18. Assignment

This Agreement shall be binding upon and inure to the benefit of the Company and its successors and assigns, and shall be binding upon Employee, his administrators, executors, legatees, and heirs. In that this Agreement is a personal services contract, it shall not be assigned by Employee.

19. Dispute Resolution.

Except as otherwise provided in Section 10, the Company and Employee agree that any dispute relating to the rights and obligations under this Agreement between Employee and the Company or its officers, directors, employees, or agents in their individual or Company capacity of this Agreement, shall be submitted to a mediator mutually acceptable to both parties for nonbinding, confidential mediation. If the matter cannot be resolved with the aid of the mediator within 30 days, the Company and Employee mutually agree to arbitration of the dispute. The arbitration shall be in accordance with the then-current Employment Dispute Resolution Rules of the American Arbitration Association before an arbitrator who is licensed to practice law in the State of Washington. The arbitration shall take place in or near Seattle, Washington. Employee and the Company will share bear the cost of the arbitration equally, but each party will bear their own costs and legal fees associated with the arbitration; *provided, however*, if any party prevails on a statutory claim,

which affords the prevailing party attorneys' fees, or if there is a written agreement providing for attorneys' fees, the arbitrator may award reasonable attorneys' fees. The Company and Employee agree that the procedures outlined in this provision are the exclusive method of dispute resolution.

20. Attorneys Fees.

In the event suit or action is instituted pursuant to Section 10 or Section 19 of this Agreement, the prevailing party in such proceeding, including any appeals thereon, shall be awarded reasonable attorneys fees and costs; *provided, however*, except with respect to claims found to be friviolous or entirely without merit, the amount of such fees to be paid by the non-prevailing party shall not exceed $50,000.

21. Applicable Law.

This Agreement shall be construed and enforced under and in accordance with the laws of the State of Washington.

22. Section 409A; Section 280G.

(a) It is the intention of the parties to this Agreement that no payment or entitlement pursuant to this Agreement will give rise to any adverse tax consequences to Employee or the Company with regard to Section 409A of the Internal Revenue Code of 1986, as amended (" Section 409A"). This Agreement shall be interpreted to that end and consistent with that objective. The Company and the Employee shall, to the extent necessary to comply with Section 409A and permitted thereunder, agree to act reasonably and in good faith to mutually reform the provisions of this Agreement to avoid the application of the additional tax and interest under Section 409A(a)(1)(B), provided that any such reformation shall not negatively impact the economics of the Company or the Employee hereunder. Notwithstanding any other provision herein, if Employee is a "specified employee," as defined in, and pursuant to, Treasury Regulation Section 1.409A-1(i) or any successor regulation, on the date of termination, no payment of any "deferred compensation", as defined under Treasury Regulation Section 1.409A or any successor regulation, shall be made to Employee during the period lasting until the earlier of six (6) months from the date of termination or upon Employee's death. If any payment to Employee is delayed pursuant to the foregoing sentence, such payment instead shall be made on the first business day following the expiration of the six (6) month period referred to in the prior sentence or, if in the case of Employee's death, promptly thereafter.

Except as otherwise specifically provided in this Agreement, if any reimbursement to which the Employee is entitled under this Agreement would constitute deferred compensation subject to Section 409A of the Code, the following additional rules shall apply: (i) the reimbursable expense must have been incurred, except as otherwise expressly provided in this Agreement, during the term of this Agreement; (ii) the amount of expenses eligible for reimbursement during any calendar year will not affect the amount of expenses eligible for reimbursement in any other calendar year; (iii) the reimbursement

shall be made not later than December 31 of the calendar year following the calendar year in which the expense was incurred; and (iv) the Employee's entitlement to reimbursement shall not be subject to liquidation or exchange for another benefit.

With regard to any installment payment, each installment thereof shall be deemed a separate payment for purposes of Section 409A of the Code.

(b) Section 280G

(i) Notwithstanding any provision of this Agreement to the contrary, except as provided below, if it is determined that the payments or benefits to which Employee will be entitled under Section 12 of the Agreement or otherwise under any other agreement, policy, plan, program or arrangement (a "Payment"), would be subject to an excise tax ("Excise Tax") under Section 4999 of the Internal Revenue Code of 1986, as amended (the "Code"), but for the application of this sentence, then the Payments will be reduced to the minimum extent necessary (but in no event below zero) so that no portion of any such Payment, as so reduced, constitutes an "excess parachute payment" within the meaning of Section 280G of the Code.

(ii) The limitation above will not apply if:

the difference between

(1) the present value of all payments to which Employee is entitled under Section 12 of the Agreement determined without regard to the limitation above, less

(2) the present value of all federal, state, and other income and excise taxes for which Employee is liable as a result of such payments; exceeds

the difference between

(1) the present value of all payments to which Employee is entitled under Section 12 of the Agreement calculated as if the limitation above applies, less

(2) the present value of all federal, state, and other income and excise taxes for which Employee is liable as a result of such reduced payments.

(iii) All determinations required to be made under this Section 21, including whether an Excise Tax is payable by the Employee and the amount of such Excise Tax, shall be made by a nationally recognized accounting firm designated by the Company (the "Accounting Firm"). The Company shall direct the Accounting Firm to submit its determination and detailed supporting

calculations to the Company and the Employee within fifteen (15) calendar days after the date of the Employee's termination of employment, and other such time or times as may be requested by the Company or the Employee. If the Accounting Firm determines that no Excise Tax is payable by the Employee, it shall, at the same time as it makes such determination, furnish the Employee with an opinion that the Employee has substantial authority not to report any Excise Tax on the Employee's federal, state, local income or other tax return. The Company and the Employee shall each provide the Accounting Firm access to and copies of any books, records and documents in the possession of the Company or the Employee, as the case may be, reasonably requested by the Accounting Firm in connection with the preparation and issuance of the determination contemplated by this Section 22. Any reasonable determination made by the Accounting Firm under this Section 22 shall be binding upon the Company and the Employee. All fees and expenses of the Accounting Firm shall be borne solely by the Company.

(iv) The reduction of the amounts payable hereunder shall be made in a manner consistent with the requirements of Section 409A of the Code. The reduction of the amounts payable hereunder, if applicable, shall be made by first reducing, but not below zero, any amounts due to the Employee pursuant to the Company's equity plans shall be reduced on a pro-rata basis. In the event that following the reduction of the amounts set forth in the preceding sentence, additional amounts payable to the participant must be reduced, the cash payments under Section 12 shall be reduced on a pro-rata basis, but not below zero.

23. Counterparts.

This Agreement may be signed in two counterparts, each of which shall be deemed an original and both of which shall together constitute one agreement.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, AVI BioPharma, Inc. has caused this Agreement to be signed by its duly authorized representative, and Employee has hereunder set his name as of the date of this Agreement.

COMPANY: AVI BioPharma, Inc.

By: /s/ Leslie Hudson
Leslie Hudson, PhD, Chief Executive Officer

EMPLOYEE:

/s/ Paul Medeiros
Paul Medeiros

EXHIBIT A

LIST OF OFFICES HELD

None

EXHIBIT B

COMPANY'S 2002 EQUITY INCENTIVE PLAN

EXHIBIT C

STOCK OPTION AGREEMENT

EXHIBIT D

RESTRICTED STOCK AGREEMENT

EXHIBIT E

CONFIDENTIAL

NON-DISCLOSURE AGREEMENT

This Non-Disclosure Agreement (this "Agreement") is entered into as of _____, 2009 (the "Effective Date"), by and between AVI BioPharma, Inc., an Oregon corporation ("AVI") and Paul Medeiros ("Employee") (each, a "Party" and, collectively, the "Parties").

RECITALS

A. Employee will be engaged as an employee to provide services to AVI (the "Services") as an at will employee under Oregon law in accordance with that certain Employment Agreement between AVI and Employee dated as of the date hereof.

B. Employee will have access to certain material, non-public information about AVI.

C. As a condition precedent to providing such information to the Employee in connection with the Services and Employee's employment, the Parties have agreed to enter into this Agreement.

D. This Agreement replaces and supersedes that certain Non-Disclosure Agreement between AVI and Employee dated _____, 2009.

NOW, THEREFORE, in consideration of the mutual covenants expressed herein and other valuable consideration, the receipt and sufficiency of which are acknowledged, the Parties, intending to be legally bound, agree as follows.

AGREEMENT

1. Definitions. For the purposes of this Agreement:

1.1 "Affiliate" of a Party means any entity that a Party directly or indirectly controls, or is controlled by, including but not limited to employees, agents, and entities.

1.2 "Confidential Information" means any business, marketing, technical, or other information in tangible or intangible form disclosed by AVI to Employee that, at the time of disclosure, is designated as confidential (or like designation), is disclosed in circumstances of confidence, or would be understood by the Parties (or their Affiliates and Representatives), exercising reasonable business judgment, to be confidential, specifically including AVI business plans, product concepts, technical know-how, methods of and other information relating to operations, development strategies, distribution arrangements, financial data, marketing plans, and business practices, policies, or objectives.

1.3 "Representative" means, with respect to either Party, such Party's members, managers, partners, Affiliates, attorneys, advisors, potential lenders, potential co-investors, directors, officers, employees, agents or representatives.

2. Disclosure, Use Restrictions and Proprietary Rights .

2.1 Disclosure and Use.

(a) Except as expressly provided in this Agreement, Employee shall retain all Confidential Information in confidence and shall not directly or indirectly, disclose reveal, divulge, publish or otherwise make known any of the Confidential Information for any reason or purpose whatsoever without AVI's prior written consent, which may be withheld at AVI's sole discretion, and solely on a need to know basis used only in accordance with this Agreement. Employee shall take all steps necessary to safeguard and protect the Confidential Information from unauthorized access, use or disclosure by or to others, including but not limited to, maintaining appropriate security measures. The obligations of confidence set forth in this Agreement shall extend to any of Employee's Representatives that may receive Confidential Information and Employee shall be responsible for any breach of this Agreement by its Representatives.

(b) In accordance with Section 2.4 below, Employee shall notify AVI immediately upon discovery of any unauthorized use or disclosure of Confidential Information or any other breach of this Agreement by Employee, its Representatives, and will cooperate with AVI to assist AVI to regain possession of the Confidential Information and prevent its further unauthorized use or disclosure.

2.2 Exemptions. Employee shall not be bound by the obligations restricting disclosure and use set forth in this Agreement with respect to Confidential Information, or any part thereof, which: (i) was known by Employee prior to disclosure; (ii) was lawfully in the public domain prior to its disclosure, or becomes publicly available other than through a breach of this Agreement; (iii) was disclosed to Employee by a third party, provided such third party is not in breach of any confidentiality obligation in respect of such information; (iv) is independently developed by Employee, where the burden is on Employee to prove independent development; or (v) is disclosed when such disclosure is compelled pursuant to legal, judicial or administrative proceedings, or otherwise required by law, subject to Employee giving reasonable prior notice to AVI Party to allow AVI to seek protective court orders. The foregoing exemptions shall extend to any Representatives that receive or have received Confidential Information.

2.3 Proprietary Rights. Employee (including its Representatives) shall not acquire any rights, express or implied, in the Confidential Information of AVI (including its Affiliates), except for the limited use specified in this Agreement. The Confidential

Information, including all right, title and interest therein, remains the sole and exclusive property of AVI (and its Affiliates).

2.4 Compulsory Disclosure. If Employee is legally compelled to disclose any of the Confidential Information, Employee shall promptly provide written notice to AVI to enable AVI (at its sole cost and expense) to seek a protective order or other appropriate remedy to avoid public or third-party disclosure of its Confidential Information. If such protective order or other remedy is not obtained, Employee shall furnish only so much of the Confidential Information that it is legally compelled to disclose, and shall exercise its commercially reasonable efforts to obtain reliable assurance that confidential treatment will be accorded the Confidential Information. Employee shall cooperate with and assist AVI, at AVI's expense, in seeking any protective order or other relief requested pursuant to this Section 2.4.

3. Ownership of Work Product.

3.1 "Work Product" means any information, created by Employee, AVI, and/or jointly by Employee and AVI during Employee's employment with AVI in connection with AVI's research, development and commercialization of drugs and related products, including but not limited to, data, reports, analysis, summaries, formulae, ideas, research, developments, inventions (patentable or not), processes, designs, drawings, works, clinical data and analysis, biological materials, chemical formulas, trade secrets, concepts, know-how, improvements, techniques, products, and any and all results of the research and development process.

3.2 Employee agrees that any and all Work Product shall be considered work made for hire and belong exclusively to AVI. In the event any such Work Product are not eligible for treatment as work for hire under applicable law, Employee hereby assigns Employee's entire right, title, and interest in and to the Work Product and/or any data, reports, analysis, summaries, formulae, ideas, research, developments, inventions (patentable or not), processes, designs, drawings, works, clinical data and analysis, biological materials, chemical formulas, trade secrets, concepts, know-how, improvements, techniques, products, and any and all results of the research and development process, made or conceived solely or jointly by Employee in connection with Employee's employment by AVI ("Company Inventions"). Employee agrees that he shall promptly disclose any such Company Inventions to AVI, and, upon request, he shall promptly execute a specific assignment of title to AVI, and do anything else reasonably necessary (whether during or after the term of Employee's employment with AVI) to enable AVI to secure a patent or copyright protection therefor in the United States and foreign countries.

4. Remedies. Employee acknowledges and agrees that the provisions of this Agreement are of a special and unique nature, the loss of which cannot be accurately compensated for in damages by an action at law, and that the breach or threatened breach of this Agreement by the Employee or any of its Representatives would cause AVI and its Affiliates irreparable harm and that money damages would not be an adequate remedy. Employee agrees on behalf of itself and its Representatives that

AVI (and its Affiliates) shall be entitled to equitable relief, including, without limitation, an injunction or injunctions (without the requirement of posting a bond, other security or any similar requirement or proving any actual damages), to prevent breaches or threatened breaches of this Agreement by Employee or any of its Representatives and to specifically enforce the terms and provisions of this Agreement, this being in addition to any other remedy to which AVI (or its Affiliates) may be entitled at law or in equity.

5. Indemnification. Employee shall indemnify and defend AVI and its Representatives and each of their respective directors, officers, employees, managers, members, partners, shareholders, agents and affiliates (collectively, the "Indemnified Persons") against and hold each Indemnified Person harmless from any and all liabilities, obligations, losses, damages, costs, expenses, claims, penalties, lawsuits, proceedings, actions, judgments, disbursements of any kind or nature whatsoever, interest, fines, settlements and reasonable attorneys' fees and expenses that the Indemnified Persons may incur, suffer, sustain or become subject to arising out of, relating to, or due to the breach of this Agreement by Employee or any of its Representatives. The provisions of this Section 4 shall survive indefinitely any termination of this Agreement, the completion or the termination of Employee's employment.

6. Securities Laws. Employee hereby acknowledges that AVI is a publicly traded company. Employee hereby acknowledges that Employee is aware that federal and state securities laws prohibit any person who has received material, non-public information (information about AVI or its business that is not generally available to the public) concerning AVI, including, without limitation, the matters that are the subject of this Agreement, from purchasing or selling securities of AVI while in possession of such non-public information, and from communicating that information to any other person who may purchase or sell securities of AVI or otherwise violate such laws. Employee specifically acknowledges these obligations and agrees to be bound by them, including, without limitation, AVI's insider trading policies in existence as of the Effective Date and as may be adopted or changed in the future.

7. Term of Confidentiality Obligation.

7.1 Term. The confidentiality obligations set forth in this Agreement shall continue with regard to an item of information as long as that information continues to meet the definition of "Confidential Information" and is not exempt under Section 2.2.

7.2 Return of Confidential Information. At any time upon written request by AVI, Employee shall return or destroy all documents or other materials embodying Confidential Information, shall retain no copies thereof, and shall certify in writing that such destruction or return has been accomplished. The confidentiality obligations set forth in this Agreement shall survive any termination of the Agreement.

8. General.

8.1 Waiver. The failure of AVI to claim a breach of any term of this Agreement shall not constitute a waiver of such breach or the right of AVI to enforce any subsequent breach of such term.

8.2 Assignment. This Agreement shall be binding on and inure to the benefit of each Party and their respective successors and assigns.

8.3 Severability. In the event that any provision of this Agreement is found to be invalid, void or unenforceable, the Parties agree that unless such provision materially affects the intent and purpose of this Agreement, such invalidity, void ability or unenforceability shall not affect the validity of this Agreement nor the remaining provisions herein.

8.4 Governing Law. This Agreement shall be governed by the laws of the State of Oregon, without regard to its conflict of law principles. The Parties agree that the exclusive jurisdiction for any legal action shall be Benton County, Oregon.

8.5 Entire Agreement. This Agreement constitutes the entire agreement between the parties on the subject matter hereof and supersedes all prior agreements, communications and understandings of any nature whatsoever, oral or written. This Agreement may not be modified or waived orally and may be modified only in a writing signed by a duly authorized representative of both parties. Nothing herein shall constitute an offer or guarantee of future employment for Employee by AVI.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized representatives and to be effective on the Effective Date.

AVI

By: /s/ Leslie Hudson
Name: Dr. L. Hudson
Title: President and CEO
Date: May 18, 2009

EMPLOYEE

By: /s/ Paul Medeiros
Name: Paul Medeiros
Title:
Date: May 18, 2009

EXHIBIT F

LIST OF ENTITIES NON-COMPETE

ISIS Pharmaceuticals, Inc.
Santaris Pharma A/S
Prosensa, B.V.
ALNYLAM, Inc.
Santheria AG
(List to be updated prior to execution)

EXHIBIT G

NON-COVERED WORK

EXHIBIT H

EMPLOYEE'S ONGOING CONFIDENTIALITY OBLIGATIONS

Schering-Plough Corporation, Kenilworth, NJ
Merck & Company, Whitehouse Station, NJ
Locust Walk Partners, Penn Valley, PA
Cranwell Group, West Windsor, NJ

EXHIBIT I

SEPARATION AND RELEASE AGREEMENT

THIS SEPARATION AND RELEASE AGREEMENT ("Agreement") is between Paul Medeiros (" Employee") and AVI BioPharma, Inc. ("Employer"), and is effective eight (8) days after Employee signs this Agreement (" Effective Date").

The parties agree as follows:

1. **Resignation**. Employee resigned his position as Employer's [Title] effective [effective date of termination] (the " Resignation Date"). Employee has been paid his salary and other compensation through the Resignation Date, less all lawful or required deductions.

2. **Consideration**. In consideration of Employee's agreements hereunder, Employer shall pay to Employee the amounts set forth and described in Section _____ of that certain Employment Agreement dated effective the _____ day of __, 2009.

3. **Return of Employer Property**. Employee represents that he has returned all Employer property in his possession or under his control, including but not limited to keys, credit cards, files, laptop computer and any and all Employer documents.

4. **Confidentiality**. The parties will use reasonable efforts to keep the terms of this Agreement confidential. Employee may disclose the terms of this Agreement to his immediate family. Employer may disclose the terms of this Agreement to its officers and managers. Either party may disclose the terms of this Agreement to their respective attorneys, accountants, financial advisers, auditors, or similar advisors, or in response to government requests. Third persons informed of the terms of this Agreement shall in turn be advised of this confidentiality provision and requested to maintain such confidentiality.

5. **Release**.

5.1 In exchange for the consideration paid to Employee as set forth in this Agreement, Employee forever releases and discharges Employer, any of Employer-sponsored employee benefit plans in which Employee participates, or was participating in, (collectively the " Plans") and all of their respective officers, members, managers, partners, directors, trustees, agents, employees, and all of their successors and assigns (collectively " Releases") from any and all claims, actions, causes of action, rights, or damages, including costs and attorneys' fees (collectively " Claims") which Employee may have arising out of his employment (including Claims that may arise out of Employee's employment agreement), on behalf of himself, known, unknown, or later discovered which arose prior to the date Employee signs this Agreement. This release includes but is not limited to, any Claims under any local, state, or federal laws prohibiting discrimination in employment, including without limitation the federal civil rights acts, Oregon Revised Statutes Chapter 659A, the Americans with Disabilities Act, the Age Discrimination in Employment Act, or Claims under the Employee Retirement Income Security Act, or Claims alleging any legal restriction on Employer's right to terminate its employees, any Claims Employee has relating to his rights to or

against any of the Plans, or personal injury Claims, including without limitation wrongful discharge, breach of contract, defamation, tortious interference with business expectancy, constructive discharge, or infliction of emotional distress. Employee represents that he has not filed any Claim against Employer or its Releases, he has no knowledge of any facts that would support any Claim by Employee against Employer or by a third party against Employer, and that he will not file a Claim at any time in the future concerning Claims released in this Agreement; provided, however, that this will not limit Employee from filing a Claim to enforce the terms of this Agreement. Notwithstanding the foregoing, nothing herein shall constitute release of any of Employee's rights relating to vested options, vested benefits or vested entitlements under the Company's employee benefits plans, including equity incentive and retirement plans.

5.2 In consideration of the promises of Employee as set forth herein, Employer does hereby, and for its successors and assigns, release, acquit and forever discharge Employee from any and all actions, causes of action, obligations, costs, expenses, damages, losses, claims, liabilities, suits, debts, and demands (including attorneys' fees and costs actually incurred), of whatever character in law or in equity known or unknown, suspected or unsuspected, from the beginning of time to the date of execution hereof.

6. **Non-disparagement**. Employee and Employer each agree not to make disparaging statements about each other, except in the case of Employer statements that are required under applicable federal or state securities laws or applicable rules and regulations of any exchange on which Employer's stock is traded.

7. **Consideration and Revocation Periods**. Employee understands and acknowledges the significance and consequences of this Agreement, that it is voluntary, that it has not been given as a result of any coercion, and expressly confirms that it is to be given full force and effect according to all of its terms, including those relating to unknown Claims. Employee was hereby advised of his right to seek the advice of an attorney prior to signing this Agreement. Employee acknowledges that he has signed this Agreement only after full reflection and analysis. Although he is free to sign this Agreement before then, Employee acknowledges he was given at least 21 days after receipt of this document in which to consider it (the " Consideration Period"). If Employee executes this Agreement prior to the end of the Consideration Period, Employee hereby waives any rights associated therewith. Employee may revoke this Agreement seven (7) days after signing it and forfeit all benefits described in Section 13(c) of the Employment Agreement. Employee and Employer agree that any changes made to this Agreement during the Consideration Period as a result of negotiations between the parties do not restart the running of the Consideration Period.

8. **No Liability**. This Agreement shall not be construed as an admission by either party that it acted wrongfully with respect to the other.

9. **Severability**. If any of the provisions of this Agreement are held to be invalid or unenforceable, the remaining provisions will nevertheless continue to be valid and enforceable.

10. **Entire Agreement**. This Agreement represents and contains the entire understanding between the parties in connection with its subject matter. All other prior written or oral agreements or understandings are merged into and superseded by this Agreement. Employee acknowledges that

in signing this Agreement, he has not relied upon any representation or statement not set forth in this Agreement made by Employer or any of its representatives.

11. **Attorney Fees**. If any suit or action is filed by either party to enforce this Agreement or otherwise with respect to the subject matter hereof, the prevailing party shall be entitled to recover reasonable attorney fees incurred in preparation or in prosecution or defense of such suit or action as fixed by the trial court, and if any appeal is taken from the decision of the trial court, reasonable attorney fees as fixed by the appellate court.

12. **Choice of Law**. This Agreement is made and shall be construed and performed under the laws of the State of Oregon.

PLEASE READ CAREFULLY. THIS AGREEMENT INCLUDES A RELEASE OF CERTAIN KNOWN OR UNKNOWN CLAIMS.

DATED this day of __ day of _____, 20XX.

AVI BioPharma, Inc.

By: _____
Name:
Title:

DATED this day of __ day of _____, 20XX.

_____
Paul Medeiros

AVI BIOPHARMA, INC.
STOCK OPTION AGREEMENT

Incentive Stock Option

This STOCK OPTION AGREEMENT is entered into the 19th day of May, 2009 (the "Grant Date") by and between AVI BIOPHARMA, INC., an Oregon corporation (the "Company"), and Paul Medeiros (the "Optionee"), pursuant to the Company's 2002 Equity Incentive Plan (the "Plan"). The Company and the Optionee agree as follows:

1. Option Grant. The Company hereby grants to the Optionee on the terms and conditions of this Agreement the right and the option (the " Option") to purchase all or any part of 400,000 shares of the Company's Common Stock at a purchase price of $1.10 per share. To the maximum extent possible, the Option is intended to be and shall be treated as an Incentive Stock Option, as defined in Section 422A of the Internal Revenue Code of 1986, as amended (the "Code"). To the extent the Option may not be treated as an Incentive Stock Option under the Code, the Option shall be treated as a non-qualified option under the Code.

2. Terms and Conditions. The terms and conditions of the Option are as set forth in the Plan, a copy of which is attached hereto as Exhibit A and as set forth in that certain Employment Agreement dated May 15, 2009, by and between the Company and Optionee, a copy of which is attached hereto as Exhibit B (the "Employment Agreement"). In the event of a conflict between the Plan and the Employment Agreement, the terms and conditions of the Employment Agreement shall control.

AVI BIOPHARMA, INC.

By: /s/ Leslie Hudson
Name: Leslie Hudson, Ph.D.
Title: Chief Executive Officer
4575 SW Research Way
Suite 200
Corvallis, OR 97333

OPTIONEE

/s/ Paul Medeiros

Paul Medeiros.
Easton, PA 18042

Exhibit 10.16

AMENDMENT NO. 1
TO
EMPLOYMENT AGREEMENT

This Amendment No. 1 to Employment Agreement (the " Amendment") is entered into effective the 16th day of October 2009 (the "Effective Date") by and between AVI BioPharma, Inc., an Oregon corporation ("Company") and Paul Medeiros ("Employee").

RECITALS

A. Whereas, Company and Employee are parties to that certain Employment Agreement dated the 15 th day of May, 2009, a copy of which is attached hereto as Exhibit A (the "Employment Agreement").

B. Whereas, the Company and the Employee desire to add a provision to the Employment Agreement related to Section 280G of the Internal Revenue Code of 1986, as amended.

Now, therefore, in consideration of the representations, warranties and covenants contained herein, the Company and the Employee agree as follows:

AGREEMENT

1. Section 22(b)(v) is hereby added to the Employment Agreement, and shall state in its entirety as follows:

   "(v) As a result of the uncertainty in the application of Section 280G and 4999 of the Code, it is possible that, despite the limitations on parachute payments provided in this Section 22, amounts may be paid or distributed by the Company to or for the benefit of the Employee under this Agreement or otherwise which are treated as excess parachute payments. In the event that any payments received by the Employee are determined by the IRS to be subject to the Excise Tax, the Company shall pay the Employee as promptly as possible following such determination (but in no event later than the end of the Employee's taxable year in which the Employee remits the related taxes) an additional amount which may be necessary to reimburse the Employee on an after-tax basis for any Excise Tax that may be imposed on such excess parachute payments and for any interest and penalties related to such Excise Tax that may be imposed by the IRS or a court. In addition, the Company shall indemnify and hold the Employee harmless, on an after-tax basis, from and against any and all losses, costs, damages or expenses (including reasonable attorneys' and accountants fees) arising out of the imposition on Employee of any Excise Tax."

2. In all other respects, the Employment Agreement shall remain unchanged and in full force and effect.

IN WITNESS WHEREOF, the parties have executed this Amendment effective the date first set forth above.

AVI BioPharma, Inc.

By:	/s/ Leslie Hudson	/s/ Paul Medeiros
Name:	Leslie Hudson, Ph.D.	Paul Medeiros
Title:	Chief Executive Officer	

Exhibit 10.17

AVI BIOPHARMA, INC.

EXECUTIVE EMPLOYMENT AGREEMENT

This Employment Agreement (the "**Agreement**") is entered into as of December 17, 2010 (the "**Effective Date**") by and between AVI BioPharma, Inc. (the "**Company**"), and Chris Garabedian ("**Executive**").

1. Duties and Scope of Employment.

(a) Positions and Duties. As of January 1, 2011 (the "**Start Date**"), Executive will serve as the Company's President and Chief Executive Officer. Executive will render such business and professional services in the performance of his duties as will reasonably be assigned to him by the Company's Board of Directors (the "**Board**").

(b) Obligations. During the Employment Term, Executive will perform his duties faithfully and to the best of his ability and will devote his full business efforts and time to the Company. For the duration of the Employment Term, Executive agrees not to actively engage in any other employment, occupation or consulting activity for any direct or indirect remuneration without the prior approval of the Board.

2. At-Will Employment. The parties agree that Executive's employment with the Company will be "at-will" employment and may be terminated at any time with or without Cause or notice. Executive understands and agrees that neither his job performance nor promotions, commendations, bonuses or the like from the Company give rise to or in any way serve as the basis for modification, amendment, or extension, by implication or otherwise, of his employment with the Company. However, as described in this Agreement, Executive may be entitled to severance benefits depending on the circumstances of Executive's termination of employment with the Company.

3. Term of Agreement. Subject to Section 2 above, this Agreement will have a term of two (2) years, commencing on the Effective Date (the "**Employment Term**"). At the end of the Employment Term, the Agreement may be renewed upon mutual agreement in writing by Executive and the Company, otherwise it will expire in accordance with its terms. Non-renewal at the end of the Employment Term shall not constitute termination without Cause or give Executive an opportunity to terminate his employment for Good Reason, even if a Good Reason event has occurred before the expiration of the Employment Term under this Agreement. Notwithstanding anything herein to the contrary, if, during the Employment Term, the Company experiences a Change of Control, the Employment Term shall be extended to the end of the Change of Control Period (as defined in Section 9(b) below).

4. Compensation.

(a) Base Salary. During the Employment Term, the Company will pay Executive an annual salary of $490,000 as compensation for his services (the "**Base Salary**"). The Base Salary will be paid periodically in accordance with the Company's normal payroll practices and be subject

to the usual, required withholdings. Executive's salary will be subject to review and adjustments will be made based upon the Company's normal performance review practices.

(b) Sign-on Bonus. Executive will receive a one-time sign-on bonus of $130,000 (the " **Sign-on Bonus**"), less applicable withholdings, payable in cash within thirty (30) days following the Start Date. Notwithstanding the foregoing, if, on or prior to the one (1) year anniversary of the Start Date, Executive terminates his employment with the Company for any reason, Executive must repay 100% of the Sign-on Bonus to the Company within sixty (60) days of Executive's termination of employment.

(c) Target Bonus. Executive will be eligible to receive a target annual bonus of fifty percent (50%) of Executive's Base Salary, less applicable withholdings, upon achievement of performance objectives to be determined by the Board in its sole discretion (the " **Target Bonus**"). The maximum bonus Executive will be eligible to receive is seventy-five percent (75%) of his Base Salary. The Target Bonus, or any portion thereof, will be paid as soon as practicable after the Board determines that the Target Bonus has been earned, but in no event shall the Target Bonus be paid after the later of (i) the fifteenth (15th) day of the third (3rd) month following the close of the Company's fiscal year in which the Target Bonus is earned or (ii) March 15 following the calendar year in which the Target Bonus is earned.

(d) Stock Option. Following the Effective Date, it will be recommended that Executive be granted a stock option to purchase 1,900,000 shares at an exercise price equal to the fair market value on the date of grant (the " **Option**"). Subject to the accelerated vesting provisions set forth herein, the Option will vest as to twenty-five percent (25%) of the shares subject to the Option on the first anniversary of the Start Date, and as to 1/48th of the shares subject to the Option monthly anniversary thereafter on the same day of the month as the Start Date (and if there is no corresponding day, the last day of the month), so that the Option will be fully vested and exercisable four (4) years from the Start Date, subject to Executive continuing to provide services to the Company through the relevant vesting dates. The Option will be subject to the terms, definitions and provisions of the Company's 2002 Equity Incentive Plan (the "**Equity Plan**") and the stock option agreement by and between Executive and the Company (the " **Option Agreement**"), both of which documents are incorporated herein by reference.

5. Employee Benefits. During the Employment Term, Executive will be entitled to participate in the employee benefit plans currently and hereafter maintained by the Company of general applicability to other executive officers of the Company. The Company reserves the right to cancel or change the benefit plans and programs it offers to its employees at any time.

6. Vacation. Executive will be entitled to paid vacation in accordance with the Company's vacation policy, with the timing and duration of specific days off mutually and reasonably agreed to by the parties hereto.

7. Relocation/Corporate Housing.

(a) Provided that Executive moves and relocates his family and household within twelve (12) months of the Start Date, the Company agrees to reimburse Executive for his (i) actual, documented reasonable expenses incurred in moving and relocating his family and household to the

Seattle, WA metropolitan area up to a total of $120,000, which may include any costs or expenses associated with Executive's (x) sale of his current residence, (y) shipment of personal effects to the Seattle, WA metropolitan area, or (z) the customary closing costs associated with the purchase of a residence in the Seattle, WA metropolitan area incurred by Executive during the relocation period and (ii) actual corporate housing expenses for housing for Executive and his family in the Seattle, WA metropolitan area up to $4,500 per month for six (6) months following the Effective Date. The Company shall not be responsible for grossing-up any funds received or paid on Executive's behalf for taxes. Executive will be responsible for withholding and paying applicable income taxes on taxable relocation funds received from the Company during the course of Executive's relocation. In addition, Executive agrees that he will submit all such reimbursable expenses to the Company with appropriate documentation no later than sixty (60) days after such expenses are incurred and the Company shall reimburse Executive promptly thereafter in accordance with the Company's expense reimbursement policy. Notwithstanding the prior sentence, to the extent such reimbursements are taxable to Executive under the Code, the Company hereby agrees that it will reimburse Executive for all such expenses by no later than March 15, 2012.

(b) If, on or prior to the one (1) year anniversary of the Start Date, Executive terminates his employment with the Company for any reason, Executive must repay 100% of the expense reimbursement paid by the Company to Executive under Section 7(a) above to the Company within sixty (60) days of Executive's termination of employment.

8. Business Expenses. The Company will reimburse Executive for reasonable travel, entertainment or other business expenses incurred by Executive in the furtherance of, or in connection with, the performance of Executive's duties hereunder, in accordance with the Company's expense reimbursement policy as in effect from time to time.

9. Severance.

(a) Termination for other than Cause, Death or Disability Apart from a Change of Control . If prior to a Change of Control or after twelve (12) months following a Change of Control, the Company (or any parent or subsidiary or successor of the Company) terminates Executive's employment with the Company other than for Cause, death or disability after providing at least thirty (30) days advance notice to Executive, then, subject to Section 10, Executive will be entitled to

(i) receive continuing payments of severance pay at a rate equal to Executive's Base Salary, as then in effect, for twelve (12) months from the date of such termination, which will be paid in accordance with the Company's regular payroll procedures;

(ii) accelerated vesting as to 50% of Executive's outstanding and unvested equity awards; and

(iii) an extension of the post-termination exercise period applicable to Executive's outstanding options to one hundred and eighty (180) days following the date of Executive's termination of employment.

(b) Termination for other than Cause, Death or Disability or Resignation by Executive for Good Reason upon or within Twelve Months Following a Change of Control. If upon or within twelve (12) months following a Change of Control (the " **Change of Control Period**"), the

Company (or any parent or subsidiary or successor of the Company) terminates Executive's employment with the Company other than for Cause, death or disability after providing at least thirty (30) days advance notice to Executive, or the Executive resigns from such employment for Good Reason, then, subject to Section 10, Executive will be entitled to

(i) receive continuing payments of severance pay at a rate equal to Executive's Base Salary, as then in effect, for twenty-four (24) months from the date of such termination, which will be paid in accordance with the Company's regular payroll procedures;

(ii) accelerated vesting as to 100% of Executive's outstanding and unvested equity awards; and

(iii) an extension of the post-termination exercise period applicable to Executive's outstanding options to one hundred and eighty (180) days following the date of Executive's termination of employment.

(c) Termination for Cause, Death or Disability; Resignation without Good Reason. If Executive's employment with the Company (or any parent or subsidiary or successor of the Company) terminates voluntarily by Executive (except upon resignation for Good Reason during the Change of Control Period), for Cause by the Company or due to Executive's death or disability, then

(i) all vesting will terminate immediately with respect to Executive's outstanding equity awards;

(ii) all payments of compensation by the Company to Executive hereunder will terminate immediately (except as to amounts already earned); and

(iii) Executive will only be eligible for severance benefits in accordance with the Company's established policies, if any, as then in effect.

(d) Exclusive Remedy. In the event of a termination of Executive's employment with the Company (or any parent or subsidiary or successor of the Company), the provisions of this Section 9 are intended to be and are exclusive and in lieu of any other rights or remedies to which Executive or the Company may otherwise be entitled, whether at law, tort or contract, in equity, or under this Agreement. Executive will be entitled to no severance or other benefits upon termination of employment with respect to acceleration of award vesting, extension of the option exercise period, or severance pay other than those benefits expressly set forth in this Section 9.

10. Conditions to Receipt of Severance; No Duty to Mitigate.

(a) Separation Agreement and Release of Claims. The receipt of any severance pursuant to Section 9(a) or (b) will be subject to Executive signing and not revoking a separation agreement and release of claims in a form reasonably satisfactory to the Company (the "**Release**") and provided that such Release becomes effective and irrevocable no later than sixty (60) days following the termination date (such deadline, the "**Release Deadline**"). No severance will be paid or provided until the Release becomes effective. If the Release does not become effective by the Release Deadline, Executive forfeits his right to any severance or similar payment under the

Agreement. In the event Executive's termination of employment occurs at a time during the calendar year where it would be possible for the Release to become effective in the calendar year following the calendar year in which his termination of employment occurs, then any severance that would be deferred in accordance with the paragraph below will be paid on the first payroll date to occur during the calendar year following the calendar year in which such termination of employment occurs, or such later time as required by (i) the payment schedule applicable to each payment or benefit, (ii) the date the Release becomes effective, or (iii) Section 10(c) below.

(b) Non-Competition; Non-Solicitation. The receipt of any severance benefits pursuant to Section 9(a) or (b) will be subject to Executive not violating the provisions of Sections 14 and 15. In the event Executive breaches the provisions of Sections 14 and/or 15, or otherwise materially breaches this Agreement, all continuing payments and benefits to which Executive may otherwise be entitled pursuant to Section 9(a) or (b), as applicable, will immediately cease.

(c) Section 409A.

(i) Notwithstanding anything to the contrary in this Agreement, no severance pay or benefits to be paid or provided to Executive, if any, pursuant to this Agreement that, when considered together with any other severance payments or separation benefits, are considered deferred compensation under Code Section 409A, and the final regulations and any guidance promulgated thereunder (" **Section 409A**") (together, the "**Deferred Payments**") will be paid or otherwise provided until Executive has a "separation from service" within the meaning of Section 409A. Similarly, no severance payable to Executive, if any, pursuant to this Agreement that otherwise would be exempt from Section 409A pursuant to Treasury Regulation Section 1.409A-1(b)(9) will be payable until Executive has a "separation from service" within the meaning of Section 409A.

(ii) Any severance payments or benefits under this Agreement that would be considered Deferred Payments will be paid on, or, in the case of installments, will not commence until, the sixtieth (60th) day following Executive's separation from service, or, if later, such time as required by Section 10(c)(iii). Except as required by Section 10(c)(iii), any installment payments that would have been made to Executive during the sixty (60) day period immediately following Executive's separation from service but for the preceding sentence will be paid to Executive on the sixtieth (60th) day following Executive's separation from service and the remaining payments shall be made as provided in this Agreement.

(iii) Notwithstanding anything to the contrary in this Agreement, if Executive is a "specified employee" within the meaning of Section 409A at the time of Executive's termination (other than due to death), then the Deferred Payments that are payable within the first six (6) months following Executive's separation from service, will become payable on the first payroll date that occurs on or after the date six (6) months and one (1) day following the date of Executive's separation from service. All subsequent Deferred Payments, if any, will be payable in accordance with the payment schedule applicable to each payment or benefit. Notwithstanding anything herein to the contrary, if Executive dies following Executive's separation from service, but prior to the six (6) month anniversary of the separation from service, then any payments delayed in accordance with this paragraph will be payable in a lump sum as soon as administratively practicable after the date of Executive's death and all other Deferred Payments will be payable in accordance with the payment

schedule applicable to each payment or benefit. Each payment and benefit payable under this Agreement is intended to constitute a separate payment for purposes of Section 1.409A-2(b)(2) of the Treasury Regulations.

(iv) Any amount paid under this Agreement that satisfies the requirements of the "short-term deferral" rule set forth in Section 1.409A-1(b)(4) of the Treasury Regulations will not constitute Deferred Payments for purposes of clause (i) above.

(v) Any amount paid under this Agreement that qualifies as a payment made as a result of an involuntary separation from service pursuant to Section 1.409A-1(b)(9)(iii) of the Treasury Regulations that does not exceed the Section 409A Limit (as defined below) will not constitute Deferred Payments for purposes of clause (i) above.

(vi) The foregoing provisions are intended to comply with the requirements of Section 409A so that none of the severance payments and benefits to be provided hereunder will be subject to the additional tax imposed under Section 409A, and any ambiguities herein will be interpreted to so comply. The Company and Executive agree to work together in good faith to consider amendments to this Agreement and to take such reasonable actions which are necessary, appropriate or desirable to avoid imposition of any additional tax or income recognition prior to actual payment to Executive under Section 409A.

(d) Confidential Information Agreement. Executive's receipt of any payments or benefits under Section 9 will be subject to Executive continuing to comply with the terms of Confidential Information Agreement (as defined in Section 13).

(e) No Duty to Mitigate. Executive will not be required to mitigate the amount of any payment contemplated by this Agreement, nor will any earnings that Executive may receive from any other source reduce any such payment.

11. Definitions.

(a) Cause. For purposes of this Agreement, "**Cause**" is defined as (i) an act of dishonesty made by Executive in connection with Executive's responsibilities as an employee, (ii) Executive's conviction of, or plea of nolo contendere to, a felony or any crime involving fraud, embezzlement or any other act of moral turpitude; (iii) Executive's gross misconduct; (iv) Executive's unauthorized use or disclosure of any proprietary information or trade secrets of the Company or any other party to whom Executive owes an obligation of nondisclosure as a result of Executive's relationship with the Company; (v) Executive's willful breach of any obligations under any written agreement or covenant with the Company; or (vi) Executive's continued failure to perform his employment duties after Executive has received a written demand of performance from the Company which specifically sets forth the factual basis for the Company's belief that Executive has not substantially performed his duties and has failed to cure such non-performance to the Company's satisfaction within ten (10) business days after receiving such notice.

(b) Change of Control. For purposes of this Agreement, "**Change of Control**" of the Company is defined as:

(i) any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended) is or becomes the "beneficial owner" (as defined in Rule 13d-3 under said Act), directly or indirectly, of securities of the Company representing more than 50% of the total voting power represented by the Company's then outstanding voting securities; or

(ii) the date of the consummation of a merger or consolidation of the Company with any other corporation that has been approved by the stockholders of the Company, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or its parent) at least fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity or its parent outstanding immediately after such merger or consolidation; or

(iii) the date of the consummation of the sale or disposition by the Company of all or substantially all the Company's assets.

Notwithstanding the foregoing provisions of this definition, a transaction will not be deemed a Change of Control unless the transaction qualifies as a "change in control event" within the meaning of Section 409A.

(c) Code. For purposes of this Agreement, "**Code**" means the Internal Revenue Code of 1986, as amended.

(d) Good Reason. For the purposes of this Agreement, "**Good Reason**" means the termination by Executive upon the occurrence of any of the below described events. Executive must provide notice to the Company of the existence of such event within ninety (90) days of the first occurrence of such event, and the Company will have thirty (30) days to remedy the condition, in which case no Good Reason shall exist. If the Company fails to remedy the condition within such thirty (30) day period, Executive must terminate employment within two (2) years of the first occurrence of such event. The events which constitute a Good Reason termination are: (i) the assignment of a different title or change that results in a material reduction in Executive's duties or responsibilities; (ii) a material reduction by the Company in Executive's base compensation, other than a reduction in his Base Salary that is part of a general salary reduction affecting employees generally and provided the reduction is not greater, percentage-wise, than the reduction affecting other employees generally or failure to provide an annual increase in base compensation commensurate with other executives; provided, however, in determining whether to provide an annual increase in base compensation commensurate with an annual increase provided to other executives, the Company may take into account factors such as market levels of compensation, Executive's overall performance, and other factors reasonably considered by the Company's compensation committee and/or Board, so long as such determination is not made in bad faith with the intent to discriminate against Executive; or (iii) relocation of Executive's principal place of business of greater than seventy-five (75) miles from its then location.

(e) Section 409A Limit. For purposes of this Agreement, "**Section 409A Limit**" will mean two (2) times the lesser of: (i) Executive's annualized compensation based upon the annual rate of pay paid to Executive during the Executive's taxable year preceding the Executive's

taxable year of his or her separation from service as determined under Treasury Regulation Section 1.409A-1(b)(9)(iii)(A)(1) and any Internal Revenue Service guidance issued with respect thereto; or (ii) the maximum amount that may be taken into account under a qualified plan pursuant to Section 401(a)(17) of the Internal Revenue Code for the year in which Executive's separation from service occurred.

12. Limitation on Payments. In the event that the severance and other benefits provided for in this Agreement or otherwise payable to Executive (i) constitute "parachute payments" within the meaning of Section 280G of the Code and (ii) but for this Section 12, would be subject to the excise tax imposed by Section 4999 of the Code, then Executive's severance benefits will be either:

(a) delivered in full, or

(b) delivered as to such lesser extent which would result in no portion of such severance benefits being subject to the excise tax under Section 4999 of the Code,

whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the excise tax imposed by Section 4999, results in the receipt by Executive on an after-tax basis, of the greatest amount of severance benefits, notwithstanding that all or some portion of such severance benefits may be taxable under Section 4999 of the Code. If a reduction in the severance and other benefits constituting "parachute payments" is necessary so that no portion of such severance benefits is subject to the excise tax under Section 4999 of the Code, the reduction shall occur in the following order: (1) reduction of the cash severance payments; (2) cancellation of accelerated vesting of equity awards; and (3) reduction of continued employee benefits. In the event that acceleration of vesting of equity award compensation is to be reduced, such acceleration of vesting shall be cancelled in the reverse order of the date of grant of Executive's equity awards. If two or more equity awards are granted on the same date, each award will be reduced on a pro-rata basis. In no event shall the Executive have any discretion with respect to the ordering of payment reductions.

Unless the Company and Executive otherwise agree in writing, any determination required under this Section 12 will be made in writing by the independent public accountants who are primarily used by the Company immediately prior to the Change of Control, the Company's legal counsel or such other person or entity to which the parties mutually agree (the " **Firm**"), whose determination will be conclusive and binding upon Executive and the Company for all purposes. For purposes of making the calculations required by this Section 12, the Firm may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Company and Executive will furnish to the Firm such information and documents as the Firm may reasonably request in order to make a determination under this Section 12. The Company will bear all costs the Firm may reasonably incur in connection with any calculations contemplated by this Section 12.

13. Confidential Information. Executive agrees to enter into the confidential information agreement attached hereto (the " **Confidential Information Agreement**") upon commencing employment hereunder.

14. Non-Competition. During the term of his employment with the Company and until the later of: the date Executive terminates his employment with the Company or the date Executive no longer receives the severance benefits provided in Section 9(a)(i) or 9(b)(i), as applicable, Executive will not, either directly or indirectly, (a) serve as an advisor, agent, consultant, director, employee, officer, partner, proprietor or otherwise of, (b) have any ownership interest in (except for passive ownership of one percent (1%) or less of any entity whose securities have been registered under the Securities Act of 1933, as amended, or Section 12 of the Securities Exchange Act of 1934, as amended) or (c) participate in the organization, financing, operation, management or control of, any business (i) that is in competition with the Company's business as conducted by the Company at any time during the course of Executive's employment with the Company and (ii) on which Executive worked or about which Executive learned, during his employment, information or knowledge not generally known or available outside the Company, or information or physical material entrusted to the Company by third parties, including, but not limited to inventions, during Executive's employment or consultancy with the Company, confidential knowledge, copyrights, product ideas, techniques, processes, formulas, object codes, biological materials, mask works and/or any other information of any type relating to documentation, laboratory notebooks, data, schematics, algorithms, flow charts, mechanisms, research, manufacture, improvements, assembly, installation, marketing, forecasts, sales, pricing, customers, the salaries, duties, qualifications, performance levels and terms of compensation of other employees, and/or cost or other financial data concerning any of the foregoing or the Company and its operations.

15. Non-Solicitation. During the term of his employment with the Company and until the date two (2) years after the termination of Executive's employment with the Company for any reason, Executive agrees not, either directly or indirectly, to solicit, induce, attempt to solicit, recruit, or encourage any employee of the Company (or any parent or subsidiary of the Company) to leave his employment either for Executive or for any other entity or person. Executive represents that he (a) is familiar with the foregoing covenant not to solicit, and (b) is fully aware of his obligations hereunder, including, without limitation, the reasonableness of the length of time, scope and geographic coverage of these covenants.

16. Assignment. This Agreement will be binding upon and inure to the benefit of (a) the heirs, executors and legal representatives of Executive upon Executive's death and (b) any successor of the Company. Any such successor of the Company will be deemed substituted for the Company under the terms of this Agreement for all purposes. For this purpose, "**successor**" means any person, firm, corporation or other business entity which at any time, whether by purchase, merger or otherwise, directly or indirectly acquires all or substantially all of the assets or business of the Company. None of the rights of Executive to receive any form of compensation payable pursuant to this Agreement may be assigned or transferred except by will or the laws of descent and distribution. Any other attempted assignment, transfer, conveyance or other disposition of Executive's right to compensation or other benefits will be null and void.

17. Notices. All notices, requests, demands and other communications called for hereunder will be in writing and will be deemed given (a) on the date of delivery if delivered personally, (b) one (1) day after being sent by a well established commercial overnight service, or (c) four (4) days after being mailed by registered or certified mail, return receipt requested, prepaid and addressed to the parties or their successors at the following addresses, or at such other addresses as the parties may later designate in writing:

If to the Company:

AVI BioPharma, Inc.
Attn: Chairman of the Board of Directors
3450 Monte Villa Parkway, Suite 101
Bothell, WA 98021

If to Executive:

at the last residential address known by the Company.

18. Severability. In the event that any provision hereof becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement will continue in full force and effect without said provision.

19. Arbitration.

(a) General. In consideration of Executive's service to the Company, his/her promise to arbitrate all employment related disputes and Executive's receipt of the compensation, pay raises and other benefits paid to Executive by the Company, at present and in the future, Executive agrees that any and all controversies, claims, or disputes with anyone (including the Company and any employee, officer, director, stockholder or benefit plan of the Company in their capacity as such or otherwise) arising out of, relating to, or resulting from Executive's service to the Company under this Agreement or otherwise or the termination of Executive's service with the Company, including any breach of this Agreement, shall be subject to binding arbitration under the Arbitration Rules set forth in the Revised Code of Washington Chapter 7.04 (the "**Rules**") and pursuant to Washington law. Disputes which Executive agrees to arbitrate, and thereby agrees to waive any right to a trial by jury, include any statutory claims under state or federal law, including, but not limited to, claims under Title VII of the Civil Rights Act of 1964, the Americans with Disabilities Act of 1990, the Age Discrimination in Employment Act of 1967, the Older Workers Benefit Protection Act, claims of harassment, discrimination or wrongful termination. Executive further understands that this Agreement to arbitrate also applies to any disputes that the Company may have with Executive.

(b) Procedure. Executive agrees that any arbitration will be administered by the American Arbitration Association (" **AAA**") and that a neutral arbitrator will be selected in a manner consistent with its National Rules for the Resolution of Employment Disputes. The arbitration proceedings will allow for discovery according to the rules set forth in the *National Rules for the Resolution of Employment Disputes* or the *Washington Code of Civil Procedure*. Executive agrees that the arbitrator shall have the power to decide any motions brought by any party to the arbitration, including motions for summary judgment and/or adjudication and motions to dismiss and demurrers, prior to any arbitration hearing. Executive agrees that the arbitrator shall issue a written decision on the merits with findings of fact and conclusions of law. Executive also agrees that the arbitrator shall have the power to award any remedies, including attorneys' fees and costs, available under applicable law. Executive understands the Company will pay for any administrative or hearing fees charged by the arbitrator or AAA except that, for any filing fees associated with any arbitration Executive initiates, Executive shall pay an amount equal to the filing fees Executive would have paid

had he/she filed a complaint in a court of law. Executive agrees that the arbitrator shall administer and conduct any arbitration in a manner consistent with the Rules and that to the extent that the AAA's National Rules for the Resolution of Employment Disputes conflict with the Rules, the Rules shall take precedence.

(c) Remedy. Except as provided by the Rules, arbitration shall be the sole, exclusive and final remedy for any dispute between Executive and the Company. Accordingly, except as provided for by the Rules, neither Executive nor the Company will be permitted to pursue court action regarding claims that are subject to arbitration. Notwithstanding, the arbitrator will not have the authority to disregard or refuse to enforce any lawful Company policy, and the arbitrator shall not order or require the Company to adopt a policy not otherwise required by law which the Company has not adopted.

(d) Availability of Injunctive Relief. In addition to the right under the Rules to petition the court for provisional relief, Executive agrees that any party may also petition the court for injunctive relief where either party alleges or claims a violation of this Agreement or the PIIA or any other agreement regarding trade secrets, confidential information, non-competition, non-solicitation or non-disparagement. In the event either party seeks injunctive relief, the prevailing party shall be entitled to recover reasonable costs and attorneys' fees.

(e) Administrative Relief. Executive understands that this Agreement does not prohibit Executive from pursuing an administrative claim with a local, state or federal administrative body such as the Washington State Human Rights Commission, Equal Employment Opportunity Commission or the workers' compensation board. This Agreement does, however, preclude Executive from pursuing court action regarding any such claim.

(f) Voluntary Nature of Agreement. Executive acknowledges and agrees that Executive is executing this Agreement voluntarily and without any duress or undue influence by the Company or anyone else. Executive further acknowledges and agrees that Executive has carefully read this Agreement and that Executive has asked any questions needed for Executive to understand the terms, consequences and binding effect of this Agreement and fully understands it, including that ***EXECUTIVE IS WAIVING EXECUTIVE'S RIGHT TO A JURY TRIAL***. Finally, Executive agrees that Executive has been provided an opportunity to seek the advice of an attorney of Executive's choice before signing this Agreement.

20. Integration. This Agreement, together with the Equity Plan, Option Agreement and the Confidential Information Agreement represents the entire agreement and understanding between the parties as to the subject matter herein and supersedes all prior or contemporaneous agreements whether written or oral. With respect to stock options or other equity awards granted on or after the date of this Agreement, the acceleration of vesting provisions provided herein will apply to such stock options and other equity awards except to the extent otherwise explicitly provided in the applicable stock option or equity award agreement. This Agreement may be modified only by agreement of the parties by a written instrument executed by the parties that is designated as an amendment to this Agreement.

21. Waiver of Breach. The waiver of a breach of any term or provision of this Agreement, which must be in writing, will not operate as or be construed to be a waiver of any other previous or subsequent breach of this Agreement.

22. Headings. All captions and section headings used in this Agreement are for convenient reference only and do not form a part of this Agreement.

23. Tax Withholding. All payments made pursuant to this Agreement will be subject to withholding of applicable taxes.

24. Governing Law. This Agreement will be governed by the laws of the State of Washington (with the exception of its conflict of laws provisions).

25. Acknowledgment. Executive acknowledges that he has had the opportunity to discuss this matter with and obtain advice from his private attorney, has had sufficient time to, and has carefully read and fully understands all the provisions of this Agreement, and is knowingly and voluntarily entering into this Agreement.

26. Counterparts. This Agreement may be executed in counterparts, and each counterpart will have the same force and effect as an original and will constitute an effective, binding agreement on the part of each of the undersigned.

IN WITNESS WHEREOF, each of the parties has executed this Agreement, in the case of the Company by their duly authorized officers, as of the day and year first above written.

COMPANY:

AVI BIOPHARMA, INC.

By: /s/ J. David Boyle II Date: December 16, 2010
Title: SVP and CFO

EXECUTIVE:

/s/ Chris Garabedian Date: December 17, 2010
CHRIS GARABEDIAN

[SIGNATURE PAGE TO EXECUTIVE EMPLOYMENT AGREEMENT]

Exhibit 10.18

July 9, 2010

Graham Johnson, B.Sc., Ph.D.

Madison, CT 06443

Dear Graham:

Congratulations on being selected as Sr. Vice President, Preclinical Development and Research at AVI BioPharma (the "Company"), effective on a date mutually agreed but no later than August 15, 2010 ("hire date"), reporting to J. David Boyle, II, Interim CEO and President. Your employee orientation will begin at 8:00 a.m. on your hire date at our Bothell office, 3450 Monte Villa Parkway, Suite 200, Bothell, WA.

Compensation

Your initial annual salary will be $300,000 per year which is paid on a monthly basis ($25,000 per month). You will also participate in our performance bonus program beginning in 2010 with a target rate of 25% of base compensation, which will be prorated for 2010. The actual bonus paid could be more or less than target, depending on the evaluation of your individual goals, as well as corporate and division performance, for 2010 and subsequent years.

Stock Options

You will receive 400,000 stock options with a grant date and price as of the Compensation Committee approval date at the next scheduled meeting in August 2010. One-third of your options will vest on each anniversary of your hire date and will be fully vested after three years.

Upon termination by the Company other than for Cause in connection with a Change in Control or upon Employee's voluntary termination of employment in connection with a Change of control, all non-vested options shall immediately vest and be exercisable for a period of 180 days following the effective date of termination.

A Change of Control means the occurrence of any one of the following events: (i) any person becomes the beneficial owner of twenty-five percent (25%) or more of the total number of voting shares of the Company; (ii) any person (other than the persons named as proxies solicited on behalf o the Board of Directors of the Company) holds revocable or irrevocable proxies representing twenty-five percent (25%) or more of the total number of voting shares of the company; (iii) any person has commenced a tender or exchange offer, or entered into an agreement or received an option, to acquire beneficial ownership of twenty-five percent (25%) or more of the total number of voting shares of the Company; and (iv) as the result of, or in connection with, any cash tender or exchange offer, merger, or other business combination, sale of assets, or any combination of the foregoing transactions, the persons who were directors of the Company before such transactions shall cease to constitute at least two-thirds (2/3) of the Board of Directors of the Company or any successor entity.

Signing Bonus

Within 30 days of the hire date, the Company will pay you a Seventy-five Thousand Dollar ($75,000) sign-on bonus. Should you separate from the Company prior to the one-year anniversary of the Hire Date for reasons of termination for cause or voluntary termination, this sign-on bonus is refundable to the Company in full.

"Cause" means the occurrence of one or more of the following events:

(i) Employee's willful and repeated failure or refusal to comply in any material respect with the reasonable lawful policies, standards or regulations from time to time established by the Company, or to perform his duties in accordance with this Agreement after notice to Employee of such failure and after Employee has been given a reasonable period of time to cure such failure to comply; or

(ii) Employee engages in criminal conduct or demonstrably engages in misconduct that is materially detrimental to the reputation, character or standing of the Company.

Benefits

You will be eligible for all benefits as outlined on the attached Benefits Summary.

Relocation

The Company will reimburse you up to One Hundred, Twenty-Five Thousand Dollars ($125,000) for reasonable expenses to relocate near the Company office location in Bothell, Washington within one year of hire date. Receipts will be required for all reimbursements. In addition to the allowable reimbursements detailed in the attached AVI Relocation Policy, Section 1(F) is amended to read, "The Company will reimburse you for temporary living expenses, not to exceed $4,000 per month (with receipts), for nine (9) months after hire date." Non-deductible expenses will be grossed-up in compliance with IRS guidelines.

By signing the Relocation Repayment Agreement (Exhibit A of the Relocation Policy), you agree to reimburse the Company for all or a portion of the relocation expenses paid on your behalf, including tax gross-up, if you voluntarily terminate your employment or you are terminated for violations of Company policy within two (2) years from the Effective Date of Transfer, as defined in Section III(1) of the Relocation Policy.

Employment at Will.

If you accept our offer of employment, you will be an employee at will, meaning that your employment is of indefinite duration and either you or the Company may terminate our employment relationship at any time for any reason, with or without cause. None of the benefits offered to you create a right to continue in employment for any particular period of time. Any statements to the contrary that may have been made to you are

unauthorized and are superseded and cancelled by this offer letter. Please also remember that initial employment terms like your position, hours of work, work location, compensation, the stock option plan, and other employee benefits may change over the course of employment at the Company's discretion.

Proprietary Rights Agreement.

As a condition of your employment, you are required to sign a Proprietary Rights and Non-Disclosure Agreement (Agreement"). This agreement is enclosed to give you an opportunity to read it carefully prior to your hire date.

We need to emphasize the importance we place on the proper treatment of proprietary information, including that which you may have come into contact with in your prior employment. The Company is extending this offer to you based upon your general skills and abilities, and not your possession of any trade secret, confidential or proprietary information of a former employer. The Company requires that you do not obtain, keep, use for the benefit, or disclose this type of information from your prior employers to us. By accepting this offer, you will also be affirming to the Company that you are not a party to an agreement with a prior employer that would prohibit your employment with us.

Eligibility for Employment.

The United States government requires all U.S. employers to verify that a new employee is eligible to work in the United States. This law applies to citizens and non- citizens. Enclosed is a list of documents that are acceptable for completing the employment verification (Form 1-9) process. Please bring your documentation with you on your first day. In addition, as a Federal contractor, we participate in e-Verify which is an on-line, work authorization verification system.

Acceptance.

This offer will remain open through July 19, 2010. If you wish to accept employment with AVI, please sign and return one copy of this offer letter to me.

We are pleased to welcome you to AVI. If you have any questions, please give me a call at 425-354-5090.

Sincerely,

/s/ Susan Bouton
Susan Bouton
Sr. Human Resources Manager

I accept the above written offer of employment under the terms in this letter.

Signature /s/ Graham Johnson Date: 7/16/2010
Graham Johnson

Exhibit A

Relocation Repayment Agreement

I agree that I will reimburse the Company for all or a portion of the relocation expenses paid on my behalf, including tax gross-up, if I voluntarily terminate my employment or I am terminated for violations of Company policy within two (2) years from the Effective Date of Transfer, as defined in Section III(1) of the Relocation Policy.

Length of Service from Effective Date of Transfer* to Termination Date	Proportion of Relocation Expenses to be Repaid to the Company
9 months or less	100%
More than 9 months up to 12 months	90%
More than 12 months up to 15 months	75%
More than 15 months up to 18 months	60%
More than 18 months up to 21 months	40%
More than 21 months up to 24 months	20%
More than 24 months.	0%

* As defined in Relocation Policy

I understand that neither the existence of this Policy nor any obligation that I may incur under it alters in any way the at-will employment relationship that exists between the Company and me.

I hereby authorize the Company to deduct from my final paycheck(s) the amount I owe under the Relocation Policy as permitted by state law. I agree to promptly pay any remaining amount I owe, along with interest at a rate of 10% per annum and any attorneys' fees incurred in the collection of the sums that I owe hereunder.

I have read and understand the above agreement.

/s/ Graham Johnson
Employee Signature

8/16/2010
Date

Graham Johnson
Printed Name

3450 Monte Villa Parkway, Suite 101, Bothell, WA 98021 ** 425-354-5090 ** FAX: 425-489-5933

Exhibit 10.36

EXECUTION COPY

EXCLUSIVE LICENSE AGREEMENT

THIS EXCLUSIVE LICENSE AGREEMENT ("Agreement") is entered into this 24th day of November 2008 ("Effective Date") by and between **THE UNIVERSITY OF WESTERN AUSTRALIA**, a body corporate established pursuant to the provisions of The University of Western Australia Act 1911, with offices at 35 Stirling Highway, Crawley, Western Australia 6009 ("UWA"), and **AVI BIOPHARMA, INC.**, an Oregon corporation, with offices at 4575 S.W. Research Way, Suite 200, Corvallis, Oregon 97333 USA ("Licensee").

RECITALS

A. UWA owns and is entitled to grant license rights with respect to certain Patent Rights and Technical Information (as defined below) invented or developed in the course of certain research conducted under the direction of Stephen D. Wilson, Sue Fletcher and Graham McClorey (hereinafter collectively referred to as the "Inventors").

B. Certain of the Patent Rights and Technical Information had been previously assigned by UWA to SmithKline Beecham Corporation doing business as GlaxoSmithKline ("GSK"), as evidenced by the agreement effectuating the assignment attached hereto as APPENDIX A, but have, as of the Effective Date, been reassigned by GSK to UWA, as evidenced by the agreement effectuating the reassignment to he attached hereto as APPENDIX B.

C. Licensee is in the process of developing various products for the treatment of Duchenne Muscular Dystrophy by inducing the skipping of certain exons for which the Patent Rights and Technical Information may be useful.

D. UWA desires to have the Patent Rights and the Technical Information developed, used and commercialized in the Field of Use (as defined below) by Licensee, and Licensee desires to obtain an exclusive, worldwide license to conduct research in the Field of Use, and to develop, manufacture, use and sell Products (as defined below) in the Field of Use, using the Patent Rights and Technical Information in accordance with the terms of this Agreement, Other than the rights expressly granted by UWA hereunder within the Field of Use, Licensee acknowledges that UWA shall retain all other rights with respect to the Patent Rights and the Technical Information.

NOW, THEREFORE, in consideration of the mutual covenants and premises herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

1. DEFINITIONS

1.1 "**Affiliate**" or "**Affiliates**" shall mean any corporation, person or entity, which controls, is controlled by, or is under common control with, a party to this Agreement without regard to stock or other equity ownership. For purposes hereof, the terms "control" and "controls" mean the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a corporation, person or entity, whether through the ownership of

voting securities, by contract or otherwise.

1.2 "**Confidential Information**" shall mean any confidential or proprietary information furnished by one party (the "Disclosing Party") to the other party (the "Receiving Party") in connection with this Agreement, including, without limitation, all specifications, know-how, trade secrets, technical information, drawings, software, models, business information and patent applications pertaining to the Patent Rights and Technical Information, and as further provided in Section 10 hereof.

1.3 "**Exons of Interest**" means dystrophin exons 51, 45, 44, 53, 46, 50, 8 and/or 52.

1.4 "**FDA**" shall mean the United States Food and Drug Administration, or any successor agency thereof.

1.5 "**Field of Use**" shall mean the treatment of Duchenne Muscular Dystrophy by inducing the skipping of the Exons of Interest and/or by skipping blocks of exons that include any or all of the Exons of Interest through the use of those antisense sequences listed in the Patent Rights.

1.6 "**Future Patent Rights**" shall mean any patents and/or patent applications claiming Inventions invented after the Effective Date the Valid Claims of which, absent a license by UWA, would be infringed by Licensee, its Affiliates or its sublicensees by the sale of Products in the Field of Use.

1.7 "**Future Technical Information**" shall mean the following information in the Field of Use developed after the Effective Date and described in Future Patent Rights: know-how, trade secrets, unpublished patent applications, software, bioinformatics, unpatented technology, technical information, statistical information and analyses, biological materials, chemical reagents, preclinical and clinical information, and any and all confidential and proprietary information described in the Future Patent Rights.

1.8 "**Invention**" shall mean all unpatented, patentable and patented inventions, discoveries, designs, apparatuses, systems, machines, methods, processes, uses, devices, models, composition of matter, technical information, trade secrets, know-how, codes, programs or configurations of any kind which are in the Field of Use.

1.9 "**Net Sales**" shall mean the total invoiced sales price and/or value of other consideration received for Products and sold by Licensee or an Affiliate thereof, less (a) sales taxes or other taxes, (b) actual shipping and insurance costs, (c) actual rebates, credits, or refunds for returned or defective Products, (d) trade discounts and quantity discounts or retroactive price reductions, (e) rebates, credits, and chargeback payments (or the equivalent thereof) actually granted to managed health care organizations, wholesalers, or to federal, state/provincial, local and other governments, including their agencies, purchasers, and/or reimbursers, or to trade customers, and (f) any import or export duties, tariffs, or similar charges incurred with respect to the import or export of Products into or out of any country in the Territory. Products will be

considered "sold" when put into use, sold, leased or otherwise transferred and a "sale" shall be deemed to have occurred upon first use, shipment, invoicing or receipt of payment, whichever shall first occur. Notwithstanding the foregoing, Net Sales shall not include, and shall be deemed zero with respect to, (i) the actual distribution of reasonable quantities of promotional samples of Products, and (ii) Products provided for clinical trials or research purposes at cost or at no charge. Notwithstanding the foregoing, in the event that a Product is sold by Licensee as part of a combination product or bundled product ("Combination Product"), the Net Sales of such Product, for the purposes of determining royalty payments due under this Agreement, shall be determined by multiplying the Net Sales (as originally defined above) of the combination product by the fraction A/(A+B), where A is the average sale price of the Product when sold separately in finished form in any country in which the Combination Product is sold and B is the average sale price of the other product(s) included in the Combination Product when sold separately in finished form, so that A+B is the average sale price of the Combination Product(s) together, in the country in which the Combination Product is sold, in each case during the applicable royalty reporting period in which sales of both occurred, or, if sales of both the Product and the other product(s) did not occur in such period, then in the most recent royalty reporting period in which sales of both occurred. In the event that such average sale price cannot be determined for both the Product and such other product(s) in the Combination Product, Net Sales for the purposes of determining royalty payments with respect to such Combination Product shall be mutually agreed by the parties based on the relative value contributed by each component, such agreement not to be unreasonably withheld.

1.10 "**Patent Rights**" shall mean International PCT Patent Application No. PCT/AU2005/000943, filed on June 28, 2005 and published as PCI' Publication No. WO 2006/000057, and all patents and/or patent applications (including provisional patent applications) existing as of the Effective Date in any other country corresponding to any of the foregoing, and all national phases, divisions, continuations, continuations-in-part, reissues, reexaminations, supplementary protection certificates and extensions thereof, whether domestic or foreign, and any patent that issues thereon. The Patent Rights are all owned by UWA.

1.11 "**Phase II Trial**" shall mean a controlled clinical study conducted to evaluate the effectiveness of a Product for the treatment of Duchenne Muscular Dystrophy, for example by testing muscle function or endurance, in patients having Duchenne Muscular Dystrophy and to determine the common short-term side effects and risks.

1.12 "**Phase III Trial**" shall mean, relative to a Phase II Trial, expanded controlled and uncontrolled trials after preliminary evidence suggesting effectiveness of the Product for treatment of Duchenne Muscular Dystrophy has been obtained, and intended to gather additional information to evaluate the overall benefit-risk relationship of the Product and to provide an adequate basis for applying for regulatory approval for commercial sales of the Product.

1.13 "**Product**" or "**Products**" shall mean any human therapeutics, diagnostics (including algorithms or any components thereof, bioinformatics and any other human health care products and/or services in the Field of Use utilizing or derived in any manner whatsoever

from any of the Patent Rights or Technical Information, which Product(s), except for the license granted hereunder, would infringe a Valid Claim of the Patent Rights.

1.14 "**Technical Information**" shall mean, as of the Effective Date, the following information in the Field of Use which is described in the Patent Rights: know-how, trade secrets, unpublished patent applications, software, bioinformatics, unpatented technology, technical information, statistical information and analyses, biological materials, chemical reagents, preclinical and clinical information, in each case which has been conceived or reduced to practice prior to the Effective Date, in the conduct by UWA of the research associated with the Patent Rights. Technical Information is all owned by UWA.

1.15 "**Territory**" shall moan the entire world.

1.16 "**Valid Claim**" shall mean a claim of an issued patent included within the Patent Rights, which claim has not (a) lapsed, been canceled or become abandoned, (b) been declared invalid or unenforceable by a non-appealable decision or judgment of a court or other appropriate body or authority of competent jurisdiction (other than with respect to any petition or writ of certiorari to the Supreme Court of the United States), or (c) been admitted to be invalid or unenforceable through reissue, disclaimer or otherwise.

2. LICENSE

2.1 Grant of Exclusive Rights. Subject to the terms of this Agreement, UWA hereby grants to Licensee, and Licensee hereby accepts from UWA, the exclusive, worldwide license, with the right to grant sublicenses (subject to the terms of Section 2.4 hereof), during the term of this Agreement (as provided in Section 6 hereof) to conduct research in the Field of Use using the Patent Rights and the Technical Information and to develop, use, make, have made, practice, import, carry out, manufacture, have manufactured, offer for sale, sell and/or have sold Products in the Field of Use in the Territory using the Patent Rights and the Technical Information. Notwithstanding any other provision hereof to the contrary, all rights to the Patent Rights and the Technical Information outside of the Field of use are retained by UWA (for purposes of clarity, the parties agree that UWA retains the right to research and commercialize sequences for exons outside the Field of Use).

2.2 Diligence. Licensee shall use commercially reasonable efforts in pursuing the development, commercialization and marketing of Products. Licensee shall be deemed to have exercised commercially reasonable efforts, and the diligence requirements of this Section 2.2 shall be deemed to have been met, if Licensee, together with its Affiliates and sublicensees, meets the respective requirements set forth on Schedule 1, with each such requirement being deemed a separate and independent condition (each, a "Milestone"). If Licensee, together with its Affiliates and sublicensees, fails to meet any Milestone designated in Schedule 1 hereto, UWA may, at its option and as its sole remedy for Licensee's breach of this Section 2.2, upon written notice to Licensee as provided under Section 6.2(a) ("Milestone Breach Notice") and if Licensee fails to cure such breach within sixty (60) days of such Milestone Breach Notice (rather than thirty (30) days as described in Section 6.2(a)) or if UWA does not agree to a modification to the relevant Milestone(s) to obviate such breach, terminates the Agreement; *provided*, *however*;

that before issuing a Milestone Breach Notice the Parties shall first meet to discuss the status of Licensee's development efforts and UWA shall consider in good faith whether such efforts amount to commercially reasonable efforts under the circumstances, and if UWA determines that such efforts do not constitute commercially reasonable efforts under the circumstances, then UWA have the option to issue a Milestone Breach Notice.

2.3 Conditions to Effectiveness. The following shall be a condition precedent to the effectiveness of this Agreement: the agreement effectuating the reassignment of patent rights (attached hereto as APPENDIX B) shall have been fully executed and delivered by UWA and GSK.

2.4 Right to Sublicense or Assign Rights. Licensee shall have the right to grant sublicenses consistent with this Agreement. Licensee shall keep UWA reasonably informed with respect to the progress of any relations entered into with any sublicensees, As an express condition of any such sublicense, any such sublicensee shall be required to agree in writing to be bound by commercially reasonable royalty reporting and recordkeeping, indemnification and inspection provisions, and the applicable provisions of this Agreement, including, without limitation, those pertaining to the use of UWA's name and marks, indemnification of UWA and the use of UWA's Confidential Information. Licensee will be responsible for enforcing each sublicensee's obligations under its sublicense. Licensee understands and agrees that none of its sublicenses hereunder shall reduce in any manner any of its obligations set forth in this Agreement.

2.5 Certain Future Rights. UWA shall promptly notify Licensee of any Future Patent Rights and Future 'technical Information and such Future Patent Rights and Future Technical Information shall be automatically included in the license granted hereunder as Patent Rights and Technical Information, respectively, under Section 2.1.

3. REPRESENTATIONS AND WARRANTIES

3.1 UWA. UWA represents and warrants to Licensee that:

(a) UWA (i) is a body corporate established pursuant to the provisions of The University of Western Australia Act 1911, duly organized, validly existing and in good standing under the laws of Australia, (ii) has the corporate power and authority to enter into this Agreement and to perform its obligations hereunder, and (Hi) has taken sufficient steps such that the execution and delivery of this Agreement by UWA and the performance by UWA of its obligations hereunder have been duly authorized by all necessary corporate action;

(b) to the best of UWA's knowledge, at the Effective Date, there are no claims, judgments or settlements to be paid by UWA with respect to the Patent Rights or Technical Information or pending claims or litigation relating to the Patent Rights or Technical Information;

(c) with respect to the Patent Rights, UWA has been assigned all right title and interest from the Inventors and GSK, as the case may be, and UWA is either (i) listed as the sole owner of record in the records of the United States Patent and Trademark Office and any

foreign patent offices with respect to Patent Rights that consist of applications or registrations with such offices, or (ii) employing diligent and commercially reasonable efforts to become listed as the sole owner of record in the records of the United States Patent and Trademark Office and any foreign patent offices with respect to Patent Rights that consist of applications or registrations with such offices for those Patent Rights that have been reassigned to UWA from GSK;

(d) UWA has the right to grant the rights granted to Licensee hereunder and to perform UWA's obligations hereunder, in each case without the consent or approval of any third party;

(e) UWA has not granted, and will not grant, licenses to the Patent Rights, Technical Information, Future Patent Rights or Future Technical Information to any third party that would conflict with or otherwise compromise the rights granted to Licensee hereunder;

(f) the Patent Rights have been duly prepared, filed, prosecuted, obtained, and maintained in accordance with all applicable laws, rules, and regulations;

(g) to the best of UWA's knowledge, no third party's intellectual property rights would be infringed or misappropriated by the practice of the Patent Rights in general and no third party is infringing or misappropriating the Patent Rights;

(h) UWA does not own or control any patents or patent applications other than the Patent Rights that currently, or when issued, would be infringed by the making, using, offering for sale, selling, or importing of any product or process covered by a claim within the Patent Rights;

(i) this Agreement constitutes the legal, valid and binding obligation of UWA, enforceable against UWA in accordance with its terms, subject only to (i) applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting the enforceability of creditors' rights generally, (ii) the limitation that the remedy of specific performance or injunctive relief is subject to the discretion of the court or arbitrator before which any proceeding therefor may be brought, and (iii) general legal and equitable principles of good faith, fair dealing and equity; and

(j) to the best of UWA's knowledge, neither the execution or delivery of this Agreement by UWA, nor the performance by UWA of its obligations hereunder, (i) requires the consent or approval of any third party; (ii) shall constitute a default under any material contract by which UWA or any of its material assets is bound (or any event which, with notice or lapse of time, or both, would constitute such a default); or (iii) shall constitute a violation of any judgment, order or decree of any court, arbitrator, governmental agency or authority binding upon UWA.

For the avoidance of doubt:

- UWA does not warrant or represent that the Patent Rights or Technical Information or any part thereof are or will be valid under this agreement.

- UWA makes no warranties or representations, including as to the accuracy or completeness of any scientific information provided in respect of this agreement.
- UWA does not warrant the applicability, utility or usability of the Patent Rights or the Technical Information in respect of the Products and disclaims any and all liability in respect of the application of the Patent Rights or the Technical Information.

3.2 Licensee. Licensee represents and warrants to UWA that:

(a) Licensee is a corporation duly organized, validly existing and in good standing under the laws of the State of Oregon and has the corporate power and authority to enter into this Agreement and to perform its obligations hereunder;

(b) the execution and delivery of this Agreement by Licensee and the performance by Licensee of its obligations hereunder have been duly authorized by all necessary corporate action;

(c) this Agreement constitutes the legal, valid and binding obligation of Licensee, enforceable against Licensee in accordance with its terms, subject only to (i) applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting the enforceability of creditors' rights generally, (ii) the limitation that the remedy of specific performance or injunctive relief is subject to the discretion of the court or arbitrator before which any proceeding therefor may be brought, and (iii) general legal and equitable principles of good faith, fair dealing and equity; and

(d) neither the execution or delivery of this Agreement by Licensee, nor the performance by Licensee of its obligations hereunder, (i) requires the consent or approval of any third party; (ii) shall constitute a default under any material contract by which Licensee or any of its material assets is bound (or any event which, with notice or lapse of time, or both, would constitute such a default); or (iii) shall constitute a violation of any judgment, order or decree of any court, arbitrator, governmental agency or authority binding upon Licensee

4. CONSIDERATION

In consideration of the execution and delivery by UWA of this Agreement, Licensee agrees as follows:

4.1 License Fee. Within three (3) days of the Effective Date, Licensee shall:

(a) pay to UWA an upfront license fee in an amount equivalent to Twelve Thousand Five Hundred U.S. Dollars (USD 12,500) exclusive of any applicable taxes; and

(b) reimburse UWA for any payment actually made by UWA to GSK, as evidenced by UWA's written records, for the sole purpose of securing the reassignment of the Patent Rights from GSK to UWA; *provided*, *however*; that such reimbursement shall be no more than Twenty-Five Thousand U.S. Dollars (USD 25,000).

4.2 Payment of Royalties.

(a) Licensee shall pay, or cause to be paid, to UWA aggregate royally fees (each, a "Royalty" and collectively, the "Royalties") equal to the following received by Licensee, its Affiliates or its sublicensees:

(i) 0.75% of Net Sales of Product in the United States; *provided*, *however*, that if the Valid Claims in the United States cover the specific base sequence of the Product for which such Royalty is due but do not provide a meaningful ability for Licensee to exclude from the market other products with different base sequences that cause skipping of the same dystrophin exon as the Product, then the royalty rate shall be reduced to 0.50% of Net Sales for such Product; and

(ii) 1.25% of Net Sales of Product outside the United Stales; *provided*, *however*, that, on a country-by-country basis, if the Valid Claims cover the specific base sequence of the Product for which such Royalty is due but do not provide a meaningful ability for Licensee to exclude from the market other products with different base sequences that cause skipping of the same dystrophin exon as the Product, then the royalty rate in any such country shall be reduced to 0.75% of Net Sales for such Product

(b) Royalties shall accrue and be payable by Licensee on a quarterly basis within forty-five (45) days following the end of each calendar quarter in which any Products generating Net Sales were sold. Each payment of Royalties shall be accompanied by a statement setting forth in reasonable detail the number and each type of Product sold and the Net Sales applicable thereto. The Products shall be considered as being sold for the purpose of the calculation of Royalties under this Agreement when the payments for such Products have been received by Licensee. Except as otherwise provided in Section 4.5, all Royalties shall be paid in United States Dollars and shall be made without set off and free and clear of (and without any deduction or withholding for) any taxes, duties, levies, imposts or similar fees or charges.

(c) Licensee shall create and maintain complete and accurate records and documentation concerning all Net Sales of Products by Licensee, its Affiliates and sublicensees in sufficient detail to enable the Royalties payable hereunder to he determined. Licensee shall retain such records and documentation for not less than three (3) years from the date of their creation. During the term of this Agreement and for a period of one (I) year thereafter, UWA and its representatives shall have the right to audit such records and documentation as shall pertain to the determination and payment of Royalties no more than once in any calendar year. Such examiners shall have reasonable access during regular business hours to Licensee's offices and the relevant records, files and books of account, and shall have the right to examine any other records reasonably necessary to determine the accuracy of the Royalty calculations provided by Licensee. The costs of any such audit shall be borne by UWA, unless as a result of such inspection it is determined that the amounts payable by Licensee for any period are in error by greater than five percent (5%), in which case the costs of such audit shall be borne by Licensee. UWA shall report the results of any such audit to Licensee within forty-five (45) days of completion. Thereafter, Licensee shall promptly pay to UWA the amount of any underpayment discovered in such audit, or UWA shall credit to Licensee against future Royalty payments the

amount of any overpayment discovered in such audit, as the case may be. In addition, Licensee shall pay interest on any underpayment at the rate that is the lower of (i) two percent (2%) over the rate of interest announced by Bank of America in Portland, Oregon (or any successor in interest thereto or any commercially equivalent financial institution if no such successor exists) to be its "prime rate," or (ii) the highest rate permitted by applicable law, from the date such amount was underpaid to the date payment is actually received.

4.3 Milestone Fees.

(a) Licensee shall pay to UWA certain fees (each, a "Milestone Fee"), which shall be determined and paid within thirty (30) days after the occurrence of each of the following corresponding events (each, a "Milestone Event") and which shall apply only to the first two Products that reach the first of such Milestone Events under Section 4.3(a)(i);

(i) Ten Thousand U.S. Dollars (USD 10,000) upon initiation of a Phase II Trial of a Product (for purposes of clarity, the parties understand and agree that the clinical trial of AVI-4658 scheduled to begin in Q4 2008 is a Phase Ib trial and not a Phase II Trial);

(ii) Fifteen Thousand U.S. Dollars (USD 15,000) upon initiation of a Phase III Trial of a Product;

(iii) Twenty Thousand U.S. Dollars (USD 20,000) upon submission of a new drug application ("NDA") to the FDA or equivalent in the European Union for market approval of a Product; and

(iv) Thirty Thousand Dollars (USD 30,000) upon approval of a NDA or equivalent in the European Union allowing commercialization of the Product described in Section 4.3(e).

(b) If a Valid Claim specifically covering a Product has not issued in the United States or European Union at the time a Milestone Event for such Product occurs, Licensee shall be entitled to defer payment of 50% of the corresponding Milestone Fee until such time, if any, that such Valid Claim is granted.

4.4 Infringement. In the event that Licensee is legally prevented from commercializing one or more Products as a result of patent infringement issues, all of Licensee's obligations with respect to such Products, including, without limitation, Royalty, Milestone Fees and other payment obligations related to that particular Product hi that jurisdiction shall be suspended unless and until such patent infringement issues are resolved. In the event that any such issues are not resolved during the term of the Agreement, or in the event that such issues are resolved in a manner that would continue to prevent Licensee from commercializing such Products, then Licensee shall have no further obligations hereunder with respect to such Products.

4.5 Currency Transfer Restrictions. If any restrictions on the transfer of currency exist in any country or other jurisdiction so as to prevent Licensee from making payments to

UWA, Licensee shall take all commercially reasonable steps to obtain a waiver of such restrictions or to otherwise enable Licensee to make such payments. If Licensee is unable to do so, Licensee shall make such payments to UWA in a bank account or other depository designated by UWA in such country or jurisdiction, which payments shall be in the local currency of such country or jurisdiction, unless payment in United States Dollars is permitted. Any payment by Licensee to UWA in currencies other than United States Dollars shall be calculated using the appropriate foreign exchange rate for such currency quoted in the *Wall Street Journal* for the close of business of the last banking day prior to the date on which such payment is being made.

4.6 Fair Market Value. UWA acknowledges and agrees that the Royalties, Milestone Fees and other obligations of Licensee under this Agreement constitute fair market value for the rights granted to Licensee under this Agreement based on arms'-length negotiations with Licensee.

5. PATENT RIGHTS

5.1 Prosecution. Commencing on the Effective Date, Licensee shall assume full responsibility for the application, maintenance, reexamination, reissue, opposition and prosecution of any kind (collectively "Prosecution") relating to the Patent Rights in the Territory, including, but not limited to, payment of all costs, fees and expenses related thereto. Licensee shall provide UWA with copies of any and all material or communications with the United States Patent and Trademark Office or any foreign patent office. Licensee shall consult with UWA as to whether and how to proceed with respect to any event in connection with Prosecution. In the event that Licensee elects to abandon the Prosecution or maintenance of any patent or patent application included in the Patent Rights, Licensee shall notify UWA of such election at least thirty (30) days before a final due date which would result in abandonment or bar of patentability of the patent or patent application and, in such event, UWA may, at its sole option and expense, continue Prosecution or maintenance of the Patent Rights. In the event that Licensee elects not to pursue subject matter in the course of Prosecution that is outside the Field of Use, then the parties will consult with one another in a good faith effort to determine how to proceed.

5.2 Future Patent Rights. Section 5.1 shall not apply to any Future Patent Rights that are included in this Agreement after the Effective Date. UWA shall provide Licensee with copies of any and all material or communications with the United States Patent and Trademark Office or any foreign patent office in connection with Prosecution of the Future Patent Rights, and Licensee shall be afforded the opportunity of prior review and comment on such action or paper. In the event that UWA elects to abandon the Prosecution or maintenance of any patent or patent application included in the Future Patent Rights, UWA shall notify Licensee of such election at least thirty (30) days before a final due date which would result in abandonment or bar of patentability of the patent or patent application and, in such event, Licensee may, at its sole option and expense, continue Prosecution or maintenance of the patent application or patent.

5.3 Expenses. Licensee shall pay all expenses resulting from its obligations in Section 5.1 hereof. UWA shall exercise reasonable efforts to cause the Inventors to cooperate

fully with Licensee with respect to the Prosecution, maintenance and protection of the Patent Rights and Future Patent Rights.

6. TERM AND TERMINATION

6.1 Term. Unless earlier terminated as provided in Section 6.2 hereof, the term of this Agreement shall commence on the Effective Date and shall expire, on a country-by-country basis, on the date upon which the last to expire of the patents covering the Patent Rights or a Valid Claim shall expire.

6.2 Termination. Except as provided by Section 6.3 hereof, this Agreement shall terminate upon the earliest to occur of the following:

(a) Upon sixty (60) days' written notice from UWA if, within such sixty (60) day period, Licensee shall fail to cure fully any breach or default of any material obligation under this Agreement as described in such written notice detailing the facts of such breach with reasonable specificity; *provided, however*, that Licensee may avoid such termination if, before the end of such sixty (60) day period, such breach or default has been cured by Licensee to the reasonable satisfaction of UWA;

(b) Upon sixty (60) days' written notice from Licensee if, within such sixty (60) day period, UWA shall fail to cure fully any breach or default of any material obligation under this Agreement as described in such written notice detailing the facts of such breach with reasonable specificity; *provided, however*, that UWA may avoid such termination if, before the end of such sixty (60) day period, such breach or default has been cured by UWA to the reasonable satisfaction of Licensee;

(c) Upon the mutual written agreement of the parties hereto (such termination to be effective as of the date mutually agreed upon in such written agreement);

(d) Immediately upon Licensee passing a resolution for winding-up (otherwise than for the purposes of a solvent amalgamation or reconstruction where the resulting entity is at least as credit-worthy as the Licensee and assumes all of the obligations of the Licensee under this Agreement) or a court shall make an order to that effect; or if a liquidator, receiver, administrator, administrative receiver, manager, trustee, or similar officer is appointed over any of the assets of the Licensee; or

(e) Immediately upon notice by Licensee that it is no longer desirous of commercializing Products.

6.3 Obligations Upon Termination. Upon any termination of this Agreement pursuant to Section 6.2 hereof, nothing herein shall be construed to release any party from any liability for any obligation incurred through the effective date of termination or for any breach of this Agreement prior to the effective date of such termination. Licensee may, for a period of one (1) year after the effective date of such termination, sell all tangible Products customarily

classified as “inventory” that it has on hand at the date of termination, subject to payment by Licensee to UWA of the applicable Royalty under Section 4 hereof.

6.4 Effect of Termination. In the event of any termination of this Agreement pursuant to Section 6.2 hereof, where such termination has not been caused by any action or inaction on the part of any sublicensee of Licensee or by any breach by such sublicensee of its obligations under its sublicense from Licensee, such termination of this Agreement shall be without prejudice to the rights of each non-breaching sublicensee of Licensee and each non-breaching sublicensee shall be deemed to be a licensee of UWA thereunder, and UWA shall be entitled to all rights, but shall not be subject to any obligations (other than the grant of license and appurtenant obligations under this Agreement to the extent provided for in such sublicense) of Licensee thereunder.

6.5 Right to Institute Legal Actions . Notwithstanding the provisions of Section 6.2 hereof, UWA, on the one hand, and Licensee, on the other hand, may institute any other legal action or pursue any other remedy against the other party permitted by applicable law if the other party does not substantially cure any breach or default of any material obligation as provided herein.

6.6 Reversion of Rights. Notwithstanding anything to the contrary set forth herein (including, but not limited to, Section 5 hereof), full responsibility for Prosecution of the Patent Rights shall, at the option of UWA and at its sole expense from the date of reversion, revert to UWA upon any termination of this Agreement.

7. INFRINGEMENT AND PROSECUTION BY THIRD PARTIES

7.1 Enforcement. Licensee shall have the first right and the obligation to enforce, at its sole expense, any Patent Rights to the extent licensed hereunder against infringement by third parties and shall notify UWA in writing in advance of all such enforcement efforts. Upon Licensee’s undertaking to pay all expenditures reasonably incurred by UWA, UWA shall reasonably cooperate in any such enforcement and, as necessary, join as a party therein. Licensee shall reimburse UWA for all expenses, including reasonable attorneys’ fees, incurred in connection with any such enforcement. In the event that Licensee does not file suit against or commence and conclude settlement negotiations with a substantial infringer of Patent Rights within ninety (90) days of receipt of a written demand from UWA that Licensee bring suit, then the parties will consult with one another in an effort to determine whether a reasonably prudent licensee would institute litigation to enforce the patent in question in light of all relevant business and economic factors (including, but not limited to, the projected cost of such litigation, the likelihood of success on the merits, the probable amount of any damage award, the prospects for satisfaction of any judgment against the alleged infringer, the possibility of counterclaims against the parties hereto, the impact of any possible adverse outcome on Licensee and the effect any publicity might have on the parties’ respective reputations and goodwill). If, after such process, it is determined that a suit should be filed and Licensee does not file suit or commence settlement negotiations forthwith against the infringer, then UWA shall have the right, at its own expense, to enforce any Patent Rights licensed hereunder on behalf of itself and Licensee. Any amount

recovered in any such action or suit, whether by judgment or settlement, shall be paid to or retained entirely by whichever party brought the action, or where both parties participate in such action or suit, all such amounts shall be allocated to each party in the ratio of expenses incurred, after first paying each party's out-of-pocket expenses, including reasonable attorneys' fees.

7.2 Defense of Patent Rights. In the event that any Patent Rights are the subject of a legal action seeking declaratory relief or of any reexamination or opposition proceeding instituted by a third party, then Licensee shall hear the expenses, including attorneys' fees, associated with such defense and in any recoupment of expenses, and UWA shall assist and cooperate with Licensee in such proceedings and shall exercise reasonable efforts to cause the Inventors to assist and cooperate fully.

7.3 Third Party Patent Rights. If Licensee reasonably determines that any Product infringes upon the rights of a third party because of the use of the Patent Rights, Future Patent Rights, Technical Information or Future Technical Information in the manufacture, use or sale of such Product, and, as a result, Licensee elects to oppose, seek reexamination of, pursue declaratory relief with respect to and/or undertake other legal action with respect to such third party's patent(s) or patent application(s) before a patent office and/or the courts of any jurisdiction in the Territory (collectively "Opposition"), then UWA shall assist and cooperate with Licensee in any such Opposition. UWA shall exercise reasonable efforts to cause the Inventors to cooperate fully with Licensee at Licensee's expense with respect to any Opposition.

8. INDEMNIFICATION

8.1 Indemnification by Licensee. UWA shall not be liable for any loss or damage sustained by Licensee or any other person directly or indirectly from or in connection with Licensee's use, license or commercialization of any part of the Products, Patent Rights, Future Patent Rights, Technical Information or Future Technical Information, except to the extent that such loss or damages results from the negligence or willful acts or omissions of UWA. Subject to Section 8.3 hereof, Licensee hereby releases and indemnifies UWA, its officers, employees and agents (each, a "UWA Indemnified Party", and collectively, the "UWA Indemnified Parties") from and against all actions, claims, proceedings and demands whatsoever, including through contract and tort which may be made or brought by any person, body or authority against it or them or any of them in respect of any loss, injury or damage including death and consequential loss arising out of Licensees' use of the Products, Patent Rights, Future Patent Rights, Technical Information or Future Technical Information, except to the extent that such Losses result from the negligence, or willful acts or omissions of UWA.

8.2 Indemnification by UWA. Subject to Section 8.3 hereof, UWA shall hold harmless, defend and indemnify' Licensee and each of its officers, directors, employees and agents from and against any and all claims, damages, losses, liabilities, costs and expenses (including reasonable attorneys' fees and expenses and costs of investigation, whether or not suit is filed) suffered or incurred in connection with any negligence, willful acts or omissions or breach on the part of UWA directly resulting from the assignment (attached hereto as APPENDIX A) or reassignment (attached hereto as APPENDIX B) of the Patent Rights between UWA and GSK.

8.3 Notice of Claim. The parties shall promptly notify one another in writing of any claim, action or material threat thereof brought against any party in respect of which indemnification may be sought hereunder, and, to the extent allowed by law, shall reasonably cooperate with the indemnifying party in defending or settling any such claim or action. No settlement of any claim, action or threat thereof received by a party and for which that party intends to seek indemnification (for itself or on behalf of any other party) shall be made without the prior joint written approval of UWA and Licensee.

9. USE OF NAMES

Neither party shall, unless as required by any law or governmental regulation, use the name of the other party and/or any of its trademarks, service marks, trade names or fictitious business names without express prior written consent of the other party.

10. CONFIDENTIALITY

10.1 Non-Disclosure. The parties hereto shall keep the terms of this Agreement and all business and scientific discussions relating to the business of the parties strictly confidential. It may, from time to time, be necessary for the parties, in connection with performance under this Agreement, to disclose Confidential Information (including know-how) to each other. The Receiving Party (as defined in Section 1.2 hereof) shall keep in strictest confidence the Confidential Information of the Disclosing Party (as defined in Section 12 hereof), using the standard of care it normally uses for information of like character, and shall not disclose the Confidential Information to any third party or use it except as expressly authorized by the prior written consent of the Disclosing Party or as otherwise permitted by this Agreement; *provided, however*, that Licensee may disclose the Confidential Information received from UWA to its Affiliates and sublicensees as shall be reasonably necessary to carry out the intent of this Agreement or any sublicense granted by Licensee as contemplated by this Agreement if, but only if, such Affiliates and/or sublicensees each execute a confidentiality agreement containing confidentiality provisions no less restrictive than those confidentiality provisions contained in this Section 10. The Receiving Party's obligation hereunder shall not apply to Confidential Information that the Receiving Party can show:

(a) Is or later becomes part of the public domain through no fault or neglect of the Receiving Party;

(b) Is received in good faith from a third party having no obligations of confidentiality to the Disclosing Party, *provided, however*, that the Receiving Party complies with any restrictions imposed by the third party;

(c) Is independently developed by the Receiving Party without use of the Disclosing Party's Confidential Information; or

(d) Is required by law or regulation to be disclosed (including, without limitation, in connection with FDA filings or filings with another government agency), provided,

however, that the Receiving Party uses reasonable efforts to restrict disclosure and to obtain confidential treatment.

10.2 Limits on Permitted Disclosures. Each party agrees that any disclosure or distribution of the other party's Confidential Information within its own organization shall be made only as is reasonably necessary to carry out the intent of this Agreement. The parties further agree that all of their respective officers, employees, agents, representatives or sublicensees to whom any Confidential Information is disclosed or distributed shall have agreed to maintain its confidentiality.

10.3 Legally Required Disclosures. If a subpoena or other legal process concerning Confidential Information is served upon any party hereto pertaining to the subject matter hereof, the party served shall notify the other party immediately, the other party shall cooperate with the party served, at the other party's expense, in any effort to contest the validity of such subpoena or other legal process. This Section 10.3 shall not be construed in any way to limit any party's ability to satisfy any disclosure of its relationship with the other party required by any governmental authority.

10.4 Return of Confidential Information . In the event of any termination of this Agreement, the Receiving Party shall, upon the Disclosing Party's request, promptly return all Confidential Information and any copies made thereof previously made available to the Receiving Party by the Disclosing Party.

10.5 Remedies. Both parties acknowledge and agree that it would be difficult to measure damages for breach by either party of the covenants set forth in this Section 10, and that injury from any such breach would be incalculable, and that money damages would therefore be an inadequate remedy for any such breach. Accordingly, either party shall be entitled, in addition to all other remedies available hereunder or under law or equity, to injunctive or such other equitable relief as a court may deem appropriate to restrain or remedy any breach of such covenants.

11. MISCELLANEOUS

11.1 Notices. Any notice, request, instruction or other document required by this Agreement shall be in writing and shall be deemed to have been given (a) if mailed with the United States Postal Service by prepaid, first class, certified mail, return receipt requested, at the time of receipt by the intended recipient, (b) if sent by Federal Express®, Airborne®, or other overnight carrier, signature of delivery required, at the time of receipt by the intended recipient, or (c) if sent by facsimile transmission, when so sent and when receipt has been acknowledged by appropriate telephone or facsimile receipt, addressed as follows:

In the case of UWA to:

The University of Western Australia
35 Stirling Highway
Crawley, WA 6009
Attention: Director, Office of Industry and Innovation
Fax: +61 8 6488 2333

or in the case of Licensee to:

AVI BioPharma, Inc.
4575 SW Research Way, Suite 200
Corvallis, Oregon 97333 USA
Attention: Leslie Hudson, Ph.D., Chief Executive Officer
Fax: 541-754-3545

with a copy to:

Michael Phillips, Esq.
Davis Wright Tremaine LLP
1300 SW Fifth Avenue, Suite 2300
Portland, Oregon 97201 USA

or to such other address or to such other person(s) as may he given from time to time under the terms of this Section 11 .1.

11.2 Governing Law. This Agreement shall be construed and enforced in accordance with the laws of: (a) the United States of America and of the State of Oregon in any action brought by UWA against Licensee, and (b) Perth, Western Australia in any action brought by Licensee against UWA, irrespective of choice of laws provisions. The parties agree that: (a) Portland, Oregon shall be the situs of any legal proceeding arising out of or relating to this Agreement if initiated by UWA against Licensee, and (b) Perth, Western Australia shall be the situs of any legal proceeding arising out of or relating to this Agreement if initiated by Licensee against UWA.

11.3 Waiver. Failure of any party to enforce a right under this Agreement shall not act as a waiver of that right or the ability to assert that right relative to the particular situation involved.

11.4 Enforceability. If any provision of this Agreement shall be found by a court of competent jurisdiction to be void, invalid or unenforceable, the same shall be reformed to comply with applicable law or stricken if not so conformable, so as not to affect the validity or enforceability of the remainder of this Agreement.

11.5 Modification. No change, modification, or addition or amendment to this Agreement, or waiver of any term or condition of this Agreement, is valid or enforceable unless in writing and signed and dated by the authorized officers of the parties to this Agreement.

11.6 Entire Agreement. This Agreement constitutes the entire agreement between the parties with respect to the subject matter hereto and replaces and supersedes as of the Effective Date any and all prior agreements and understandings, whether oral or written, between the parties with respect to the subject matter of such agreements; *provided however*, that this Agreement shall have no effect on the Mutual Confidentiality Agreement dated October 1, 2008 between the parties.

11.7 Successors. Except as otherwise expressly provided in this Agreement, this Agreement shall be binding upon, inures to the benefit of, and is enforceable by, the parties and their respective heirs, legal representatives, successors and permitted assigns.

11.8 Construction. This Agreement has been prepared, examined, negotiated and revised by each party and their respective attorneys, and no implication shall be drawn and no provision shall be construed against any party to this Agreement by virtue of the purported identity of the drafter of this Agreement or any portion thereof.

11.9 Counterparts. This Agreement may be executed simultaneously in one or more counterparts, each of which shall constitute one and the same instrument. This Agreement may be executed by facsimile.

11.10 Attorneys' Fees. In the event of any action at law or in equity between the parties hereto to enforce any of the provisions hereof, the unsuccessful party to such litigation shall pay to the successful party all reasonable costs and expenses, including reasonable attorneys' fees, incurred therein by such successful party; and if such successful party shall recover a judgment in any such action or proceeding, such reasonable costs, expenses and attorneys' fees may be included in and as part of such judgment.

11.11 Assignment. This Agreement may not be assigned by either party without the prior written consent of the other party, and any such attempted assignment shall be void and of no effect, except that either party may assign this Agreement to any successor in connection with the merger, consolidation or sale of all or substantially all of its assets or that portion of its business to which this Agreement relates.

11.12 Further Assurances. At any time and from time to time after the Effective Date, each party shall do, execute, acknowledge and deliver, and cause to be done, executed, acknowledged or delivered, all such further acts, transfers, conveyances, assignments or assurances as may be reasonably required to consummate the transactions contemplated by this Agreement.

11.13 Survival. The terms and conditions of the following provisions will survive termination or expiration of this Agreement for as long as necessary to permit their full

discharge: Section 1 (“Definitions”), Section 6 (“Term and Termination”), Section 8 (“Indemnification”), Section 9 (“Use of Names”) and Section 10 (“Confidentiality”). The provisions set forth in Section 4 (“Consideration”) also shall survive any expiration or earlier termination of this Agreement, to the extent set forth therein.

[Signature page follows.]

IN WITNESS WHEREOF, the parties have caused their duly authorized representatives to execute this Agreement as of the date first above written.

"UWA":

THE UNIVERSITY OF WESTERN AUSTRALIA,
A BODY CORPORATE ESTABLISHED PURSUANT TO THE PROVISIONS OF THE UNIVERSITY OF WESTERN AUSTRALIA ACT 1911

By: /s/ Doug McEachern
Name: Professor Doug McEachern
Its: Deputy Vice-Chancellor (Research & Innovation) The University of Western Australia

Date: 24th November, 2008

"LICENSEE":

AVI BIOPHARMA, INC., AN OREGON CORPORATION

By: /s/ Dr. L. Hudson
Name: Dr. L. Hudson
Its: President & CEO

Date: January 7, 2008

SCHEDULE 1

Diligence Milestones

1. Within two (2) years following announcement of the success of a Phase Ib trial of AVI- 4658, Licensee (and/or its Affiliates or sublicensees) shall have initiated a Phase II Trial of AVI-4658.
2. Within two (2) years following completion of a successful Phase II Trial of AVI-4658, Licensee (and/or its Affiliates or sublicensees) shall have initiated a Phase III Trial of AVI-4658.
3. Within two (2) years following completion of a successful Phase III Trial of AVI-4658, Licensee (and/or its Affiliates or sublicensees) shall have submitted a new drug application to the FDA or equivalent in the European Union for market approval of AVI-4658.
4. If any of the aforementioned Milestones are unsuccessful, and provided the provisions of Section 2.2 are observed by UWA, UWA may terminate the Agreement in accordance with Section 2.2 unless Licensee has initiated a Phase I Trial of a different Product within two (2) years of a Milestone for AVI-4658 being unsuccessful. Any such Product(s) shall likewise be commercialized in accordance with Section 2.2.

APPENDIX A

Patent Assignment Agreement between UWA and GSK

See attached.

PATENT ASSIGNMENT AGREEMENT

THIS PATENT ASSIGNMENT AGREEMENT (hereinafter, the "Assignment") is made and entered into this 10th day of March, 2006 by and between:

(1) **SMITHKLINE BEECHAM CORPORATION, DOING BUSINESS AS GLAXOSMITHKLINE** , a company incorporated in the Commonwealth of Pennsylvania, with its principal office at One Franklin Plaza, 200 N. 16th Street, Philadelphia, Pennsylvania 19101 USA ("Assignee"); and

(2) **THE UNIVERSITY OF WESTERN AUSTRALIA**, a body corporate established pursuant to the provisions of The University of Western Australia Act 1911 (Western Australia), of 35 Stirling Highway, Crawley, Western Australia 6009 ("Assignor").

RECITALS

(A) Whereas, the Assignor owns and has applied for certain patent applications (the "Patent Applications") defined below in respect of the inventions disclosed in the Patent Applications (the "Inventions");

(B) Whereas, Assignor has agreed to assign to Assignee the Patent Applications and the Inventions disclosed therein as hereinafter set forth; and

(C) Whereas, Assignee desires to obtain all of Assignor's right, title, and interest in and to the Patent Applications and Inventions.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, in consideration of the promises and mutual covenants contained herein, and intending to be legally bound hereby, the parties hereto agrees as follows:

1. Definitions.

   a. "Inventions" has the meaning given to it in Recital (A) above.

   b. "Net Sales" shall mean the gross receipts worldwide from sales of the Product by Assignee to third parties, less all customary deductions using generally accepted accounting standards for:

      i) trade, cash and quantity credits, discounts, refunds or rebates;

      ii) allowances or credits to customers actually granted on account of rejection, damage, or return of Product;

      iii) sales commissions;

iv) sales and excise taxes (including value added tax) and any other governmental charges imposed upon the production, importation, use or sale of Product;

v) transportation charges, including insurance, for transporting Product to the extent specifically invoiced to the customer; and

vi) product rebates, discounts and charge backs including, without limitation, those granted to managed-care entities and government agencies.

Product sales between GSK, its Affiliates and its and their sublicensees, shall be excluded from the computation of Net Sales and no royalties shall be payable on such sales.

c. "Patent Applications" means the international patent application PCT/AU2005/000943, filed on 28 June 2005 and published as WO 2006/000057 on 5TH January 2006, together with any further national application, divisional application, continuation in part and the like deriving from said international or national patent application(s) in any country in the world.

d. "Product" means any product or part thereof, the manufacture, use, or sale of which would infringe one or more Valid Claims included within the Patent Applications.

e. "Valid Claim' shall mean a claim of an issued patent included in the Patent Applications which has not been abandoned, lapsed, expired or been declared invalid or unenforceable in a final, unappealable decision (or a decision from which no appeal was taken) of a court of competent jurisdiction.

2. Assignment of Patent Applications and Inventions . Assignor hereby assigns to Assignee all right, title, and interest in and to the Inventions and the Patent Applications, and any patents granted thereon, and all rights associated therewith, including but not limited to the right to apply for and obtain patents and similar forms of protection in respect of the Inventions and the Patent Applications throughout the world; the right to make any new application or applications in respect of any part or parts of the subject matter of any application or specification filed in connection with the Inventions and the Patent Applications; the right to claim priority from the Patent Applications; the right to bring proceedings for any previous infringement of the rights assigned by this Assignment; and the right to claim priority of the Patent Applications under the Paris Convention (as amended) in all countries and territories and to hold the same unto the Assignee.

3. License Grant. Assignee hereby grants to Assignor a fully paid up, irrevocable non-exclusive license to the Patent Applications and Inventions for internal research purposes only.

4. Payment. Assignor acknowledges that certain consideration for obtaining the right title and interest in and to the Patent Applications and Inventions has already been given, namely, that Assignee paid all fees associated with the filing of the Patent Applications. In addition, Assignee shall continue to assume all patent filing and prosecution costs associated with the Invention and the Patent Applications.

5. Royalty. In further consideration for the license granted to Assignee hereunder, Assignee shall pay a royalty to Assignor of 0.5 percent (0.5%) on the Net Sales of Assignee on Products. Royalties shall be calculated on an annual, calendar year basis and paid to Assignor within sixty (60) days of the end of each calendar year.

5.1 Record Retention. Assignee shall keep complete and accurate records in sufficient detail to permit Assignor to confirm the accuracy of calculations of all royalties due hereunder. Such records shall be retained by Assignee for a three (3) year period following the year in which any such royalty payments were due hereunder.

5.2 The obligation to pay royalties hereunder shall terminate on expiration, invalidation, lapse or abandonment of the last Valid Claim of the Patent Applications except that the royalties accrued but not paid prior to such expiration shall be payable with the next payment cycle under the provisions of this Article 5. A patent shall be deemed to expire at midnight of the day of expiration.

6. Cooperation. Assignor shall reasonably cooperate with Assignee, at Assignee's sole discretion and expense, to assist Assignee with filing patent applications or other documents related to the Inventions and the Patent Applications, including but not limited to, assisting in preparing and prosecuting the patent applications, and consulting with Assignee and Assignee's legal counsel regarding the Inventions and patent applications. Assignor further agrees to cooperate in executing all documents, instruments, and other papers and taking actions as necessary for Assignee to secure patent rights and as necessary to effect the transfer of all right, title and interest in and to the Patent Applications and the Inventions to Assignee, and to record and perfect title therein in the sole name of Assignee.

7. Publication Rights. Assignor shall not publish or present any part of the Inventions or any information included therein until a patent application directed thereto has been filed. Assignee shall notify Assignor immediately in writing upon the filing of any such patent application. Upon receipt of said notification from Assignee, Assignor shall have the right to publish any information related to or included within the Patent Applications, provided that Assignor requests permission to publish or present from Assignee, and Assignee, in its sole discretion, reviews and approves the information to be published or presented. If Assignee does not, within ninety (90) days of receipt of a request for permission to publish from Assignor, indicate either approval or rejection of the publication or presentation, then Assignee will be deemed to have approved the proposed publication or presentation. Any publication

or presentation by the Assignee shall acknowledge the Assignor and appropriate employees of the Assignor as co-authors on the publication or presentation.

8. No Publicity. Neither party hereto shall identify the other party in any promotional advertising, press releases or other promotional materials to be disseminated to the public or any portion thereof without the express prior written consent of the other party. Assignor shall not use the name of Assignee or the name of any Assignee's directors, officers, employees, or agents, as applicable, or any trademark, service mark, trade name, or symbol of Assignee, without Assignee's express prior written consent. Any promotional advertising, press releases or other promotional materials prepared by Assignee and concerning the Invention shall acknowledge Assignor's participation in the development of the Invention.

9. Warranties; Disclaimer of Warranties.

9.1 Assignor hereby represents and warrants that the subject matter of the Patent Applications and the Inventions was developed by its employees, that such employees have assigned their ownership rights in the Inventions and Patent Applications to Assignor, and that Assignor has the full right and legal authority to perform its obligations and grant the rights granted to Assignee herein.

9.2 Assignor hereby represents and warrants that to Assignor's knowledge the manufacture, use or sale of any product or process under the Patent Applications and the Inventions do not infringe any patent, copyright, trademark, or other intellectual property rights of any third party. Assignor also hereby represents and warrants that, to Assignor's knowledge, no third party is infringing the intellectual property rights contained in the Patent Applications and Inventions.

9.3 Except as expressly stated in Section 9.1 and 9.2, ASSIGNOR MAKES NO WARRANTIES OR REPRESENTATIONS OF ANY KIND, EITHER EXPRESS OR IMPLIED UNDER THIS AGREEMENT, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR REPRESENTATIONS AS TO THE PURITY, ACTIVITY, SAFETY, OR USEFULNESS OF THE INVENTION ASSIGNED TO ASSIGNEE UNDER THIS AGREEMENT.

10. Assignment of Agreement. Neither party may assign this Agreement or its rights and obligations hereunder, in whole or in part, to any third party without obtaining the prior written consent of the other party; provided, however, that ASSIGNEE may assign this Agreement, or its rights and obligations hereunder, in whole or in part, to any of its Affiliates (as defined below) or to any entity with which it may merge or consolidate or to which it may transfer all or substantially all of its assets relating to the Inventions. Assignor may assign this Agreement to an Affiliate only after obtaining the prior written consent of Assignee. "Affiliate" means any entity that,

directly or indirectly, is controlled by, controls or is under common control with a party hereto. “Control” means having the power to direct, or cause the direction of, the management and policies of any entity, whether through ownership of voting securities, by contract or otherwise.

11. Notices. Any notices, payments or statements to be made under this Agreement shall be made as follows:

If to Assignor:

Name: Simon Handford
Title: Project Manager Commercialisation,
University of Western Australia, 35 Stirling Highway, Nedlands WA 6009
Fax: +61 8 6488 2333

if to Assignee:

GlaxoSmithKline
Name: Dr. P. Anthony Akkari
Title: Human Genetics Manager
Mail Stop: MAI 1217
Five Moore Drive
Research Triangle Park, NC 27709
USA
Fax: 919-483-0659

with a copy to:

GlaxoSmithKline
R&D Legal Ops
VP and Senior Counsel
Mail Stop RN0220
2301 Renaissance Blvd.
King of Prussia, PA 19406
USA
Fax: 610-787-7084

or at such other address later designated in writing by either Party for such purposes. Such notices shall be effective upon receipt

12. Choice of Law. This Agreement shall be interpreted and governed in accordance with the laws of the Commonwealth of Pennsylvania, United States of America, without giving effect to conflict of law provision of any jurisdiction.

13. Survival. The provisions of Sections 1, 2, 4, 6, 7, 8, 9, 10, 11, 12, and 13, hereof shall survive any expiration or termination of this Agreement.

14. Entire Agreement. This Agreement constitutes the entire understanding of the parties with respect to the terms of the subject matter hereof and shall not be modified except by subsequent mutual written agreement.

IN WITNESS WHEREOF the parties hereto have executed this Assignment by their duly authorised officers as of the date and year first above written.

SmithKline Beecham Corporation doing business as GlaxoSmithKline

By: /s/ Allen D. Roses
Name: Allen D. Roses
Title: Sr. VP, Genetics Research

University of Western Australia

By: /s/ Doug McEachern
Name: Professor Doug McEachern
Title: Pro Vice-Chancellor (Research & Innovation)

APPENDIX B

Patent Assignment Agreement between UWA and GSK

See attached.

PATENT ASSIGNMENT AGREEMENT

THIS PATENT ASSIGNMENT AGREEMENT (hereinafter the "Assignment") is made and entered into this 19th day of November 2008 (the "Effective Date") by and between:

(1) **SMITNKLINE BEECHAM CORPORATION, DOING BUSINESS AS GLAXOSMITNICLINE** , a company incorporated in the Commonwealth of Pennsylvania, with its principal office at One Franklin Plaza, 200 N. l6 th Street, Philadelphia, Pennsylvania 19101 USA ("Assignor"); and

(2) **THE UNIVERSITY OF WESTERN AUSTRALIA**, a body corporate established pursuant to the provisions of The University of Western Australia Act 1911 (Western Australia), of 35 Stirling Highway, Crawley, Western Australia 6009 ("Assignee").

RECITALS

(A) Whereas the Assignor owns and has applied for certain patent applications (the "Patent Applications") defined below in respect of the inventions disclosed in the Patent Applications (the "Inventions").

(B) Whereas Assignor has agreed to assign to Assignee the Patent Applications and the Inventions disclosed therein as hereinafter set forth; and

(C) Whereas Assignee desires to obtain all of Assignor's right, title, and interest in and to the Patent Applications and Inventions.

NOW THEREFORE, in consideration of the promises and mutual covenants contained herein, and intending to be legally bound hereby, the parties hereto agree as follows:

1. Definitions

   a. "Inventions" has the meaning given to it in Recital (A) above.

   b. "Patent Applications" means the international patent application PCT/AU2005/000943 filed on 28 June 2005 and published as WO 2006/000057 on 5th January 2006, the United States patent application Serial No. 11/570,691, and the European patent application No. 05754344, together with any further national applications, divisional applications, continuations-in-part and the like deriving from said international, regional or national patent application(s) in any country in the world.

2. Assignment of Patent Applications and Inventions . Assignor hereby assigns to Assignee all right, title, and interest in and to the Inventions and the Patent Applications, and any patents granted thereon, and all rights associated therewith, including but not limited to the right to apply for and obtain patents and similar forms of protections in respect of the Inventions and the Patent Applications throughout the world; the right to make any new application or applications in respect of any part or parts of the subject matter of any application or specification filed in connection with the Inventions and the Patent Applications; the right to

claim priority form the Patent Applications; the right to bring proceedings for any previous infringement of the rights assigned by these Assignment; and the right to claim priority of the Patent Applications under the Paris Convention (as amended) in all countries and territories and to hold the same unto the Assignee.

3. License Grant. Assignee hereby grants to Assignor a filly paid up, irrevocable non-exclusive, royalty-free license to the Patent Applications and Inventions for internal research purposes only, including research conducted by any of Assignor's Affiliates (as defined below) or any entity with which it may merge or consolidate or to which it may transfer all or substantially all of its assets relating to the Inventions. "Affiliate" means any entity that, directly or indirectly, is controlled by, controls or is under common control with a party hereto. As used in the definition of Affiliate, the term "Control" means having the power to direct, or cause the direction of, the management and policies of any entity, whether through ownership of voting securities, by contract, or otherwise.

4. Payment. In consideration for obtaining the right, title, and interest in and to the Patent Applications and Inventions, Assignee agrees to pay Assignor the sum of twenty-two thousand US dollars (US $22,000) within thirty days after execution of this Agreement. This amount is non-refundable.

5. Cooperation. Assignor shall reasonably cooperate with Assignee, at Assignee's sole discretion and expense, in executing all documents, instruments, and other papers and taking actions as necessary for Assignee to secure patent rights and as necessary to effect the transfer of all right, title and interest in and to the Patent Applications and the Inventions to Assignee, and to record and perfect title therein in the sole name of Assignee.

6. No Publicity. Neither party hereto shall identify the other party in any promotional advertising, press releases or other promotional materials to be disseminated to the public or any portion thereof without the express prior written consent of the other party. Assignee shall not use the name of Assignor or the name of any Assignor's directors, officers, employees, or agents, as applicable, or any trademark, service mark, trade name, or symbol of Assignor, without Assignor's express prior written consent.

7. Disclaimer of Warranties. THE PATENT APPLICATIONS ARE PROVIDED "AS IS" AND ASSIGNOR MAKES NO WARRANTIES OR REPRESENTATIONS OF ANY KIND, EITHER EXPRESS OR IMPLIED UNDER THIS AGREEMENT, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR REPRESENTATIONS AS TO THE PURITY, ACTIVITY, SAFETY, OR USEFULNESS OF THE INVENTION ASSIGNED TO ASSIGNEE UNDER THIS AGREEMENT OR FREEDOM FROM INFRINGEMENT OF THE INTELLECTUAL PROPERTY RIGHTS OF A THIRD PARTY. ASSIGNOR SHALL NOT BE LIABLE HEREUNDER UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE REMEDIES FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOST PROFIT.

8. No Liability. In no event shall Assignor have any liability of any kind in connection with any use of the Invention or any product or service which is based upon, derived from or incorporates the Invention by Assignee, its licensees or assigns.

9. Notices. Any notices, payments or statements to be made under this Agreement shall be made as follows:

If to Assignor:

GlaxoSmithKline
Name: Ashley H. Bates
Head Of Research & Development Alliances, Australia
{address}

with a copy to:

GlaxoSmithKline
R&D Legal Ops
VP and Senior Counsel
Mail Stop RN0220
2301 Renaissance Blvd.
King of Prussia, PA 19406
USA
Fax: 610-787-7084

If to Assignee:

Name: Simon Handford
Title: Project Manager Commercialization
University of Western Australia,
35 Stirling Highway , Nedlands, WA 6009
Fax: +61 8 6488 2333

Or at such other address later designated in writing by either Party for such purposes. Such notices shall be effective upon receipt.

10. Choice of Law. This Agreement shall be interpreted and governed in accordance with the laws of the Commonwealth of Pennsylvania, United States of America, without giving effect to conflict of law provision of any jurisdiction.

11. Survival. The provisions of Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11 hereof shall survive any expiration or termination of this Agreement.

12. Entire Agreement. This Agreement constitutes the entire understanding of the parties with respect to the terms of the subject matter hereof and shall not be modified except by subsequent mutual written agreement.

IN WITNESS WHEREOF the parties hereto have executed this Assignment by their duly authorized officers as of the date and year first above written.

SmithKlineBeecham Corporation
doing business as GlaxoSmithKline

By: /s/ Lon R. Cardon
Name: Lon R. Cardon
Title: Senior Vice President, Genetics

University of Western Australia

By: /s/ Doug McEachern
Name: Professor Doug McEachern
Title: Deputy Vice-Chancellor (Research & Innovation)
The University of Western Australia

AE McGrory
VG Campen

Exhibit 10.53

LEASE EXTENSION AND MODIFICATION AGREEMENT

This Lease Extension and Modification Agreement ("Agreement" is entered into and effective as of the 1st day of September, 1996, by and between Research Way Investments, a California limited partnership ("Landlord") and AntiVirals, Inc. ("Tenant").

Recitals:

A. Landlord and Tenant are parties to a Commercial Lease with an execution date of June 18, 1992 ("Lease"); and

B. Landlord and Tenant now desire to extend and modify the Lease on the terms set forth below.

Now, therefore, the parties agree as follows:

1. The Premises shall increase by 5,227 square feet of Net Rentable Area, to include the area outlined on the floor plan attached hereto. For purposes of computing Fixed Rent, the Premises shall be deemed to be 18,407 square feet of Net Rentable Area. For purposes of computing Tenant's percentage share of Operating Costs and Taxes, the Premises shall be deemed to be 18,568 square feet of Net Rentable Area; the Building shall be deemed to have a Net Rentable Area of 90,600 square feet; and Tenant's Percentage Share of Operating Costs and Taxes shall be 20.494%.

2. Fixed Rent on 13,180 square feet of Net Rentable Area shall be $.52 per square foot per month; Fixed Rent on the remaining 5,227 square feet of Net Rentable Area shall be $.75 per square foot per month. On December 15, 1996, Fixed Rent on the entire 18,407 square feet of Net Rentable Area shall be $.75 per square foot per month. Fixed Rent shall increase by three percent (3%) on September 15, 1998, and on each September 15th thereafter (including during each extended term, if Tenant exercises its options to extend the Lease), Fixed Rent shall increase by three percent (3%) of the immediately preceding Fixed Rent. Paragraphs 3.2 and 3.3 of the Lease are deleted.

3. The Lease shall terminate on December 15, 2004. In lieu of the option set forth in paragraph 7 of Addendum 1, Tenant shall have two (2) options to extend the Lease for five years each; provided, that Tenant, each time, shall give Landlord at least twelve (12) months prior written notice of its intent to extend the Lease, which notice, each time, shall be accompanied by a nonrefundable payment of $20,000 to be applied toward the Fixed Rent next and payable during the extended term; and, provided further, that Tenant shall not be entitled to extend the Lease if Tenant is in default. Paragraph 4 of Addendum 1 is deleted.

4. Paragraph 5.1(a) of the Lease is amended as set forth below:

(a) Operating Costs. All cost and expenses of management, ownership, operation and maintenance of the Building and Property, including by way of illustration but not limited to, utilities; waste disposal; materials and supplies; Insurance Premiums (unless otherwise paid for by Tenant pursuant to the provisions of Section 13.1 below); cost of services of independent contractors and employees (including, without limitation, wages, salaries, employment taxes and fringe benefits of such persons but excluding persons performing services not uniformly available to all Building tenants); day-to-day operation; maintenance and repair of the Premises, Building, its equipment, and the common areas, parking areas, walkways, access ways, and landscaped areas, including, without limitation, janitorial, gardening, security, elevator servicing, painting, plumbing, electrical, carpentry, heating, ventilation, air conditioning, window washing; signing and advertising; rental expense or depreciation of personal property used in the maintenance, operation, and repair of the Building; the cost of capital improvements to the Building (amortized in accordance with generally accepted accounting principles together with interest at the prevailing annual rate on the unamortized portion of such cost) made after the date of the Lease which reduce other items of Operating Costs or are required under any governmental law or regulation; reserves for future maintenance, repair or replacement of components of the improvements on the Property such as, by way of illustration, roof of the Building, surfaces of parking areas, and repainting or resurfacing of Building walls, reasonably based on the anticipated cost and estimated useful life of such items. Operating Costs shall not included Real Property Taxes (as defined in Section 5.1(b) below) or the taxes referred to in Section 5.3 below; debt service, if any, on the Building; depreciation on the Building other than depreciation on exterior window draperies provided by Landlord and carpeting in public corridors; costs of Tenant's improvements; real estate brokers' commissions; capital improvements other than the reserves and capital improvements included in Operating Costs above; and the cost of repairs, utilities, or extra services furnished to, billed to and payable separately by, Tenant or any other lessee of the Building.

5. The next to the last sentence of Paragraph 9 of the Lease is amended as follows:

Unless removed by Tenant prior to or on the Expiration Date or earlier date of termination of this Lease, any equipment, trade fixtures, machinery, cabinetwork, movable furniture, or other personal property remaining on the Premises at the expiration or sooner termination of this Lease shall, in the sole option of Landlord, either (I) become the property of Landlord; or (ii) be removed from the Premises and discarded at Tenant's sole cost and expense.

6. The last three sentences of the second paragraph of Paragraph 12 of the Lease are amended as follows:

Tenant agrees to hold Landlord harmless from and to indemnify and defend Landlord against all claims, liability, damage, or loss and against all costs and expenses, including, without limitation, attorneys' and paralegals' fees and costs and court costs in connection therewith, arising out of any injury or death of any person using the exercise equipment or facilities (if any) through said person's association with Tenant. Tenant further acknowledges that said exercise equipment and/or facilities (if any) may only be used by Tenant and its employees in common with other tenants and their employees. Tenant shall not permit use of the exercise equipment or facilities (if any) by Tenant's vendors, or the family members or friends of Tenant and its employees.

7. The fourth sentence of Paragraph 13.3 of the Lease is amended as follows:

The aforesaid insurance shall name Landlord and its partners, employees, agents, and co-owners of the Building as an additional insured (and, at Landlord's option, the property manager and the holder of any mortgage or deed of trust on the Building, or any part thereof or interest therein, as an additional insured, and shall be with companies having a rating or not less than AAA in "Best's Insurance Guide" or another comparable rating or publication of Best's Insurance Guide" or another comparable rating or publication if Best's Insurance Guide is no longer published or produced.

8. In Paragraphs 14.1, 14.2, and 14.4, the terms "Tenant's Proportionate Share of Operating and Costs and Taxes" and "Tenant's Proportionate Share of Building Operating Costs and Taxes" shall be changed to "Tenant's Percentage Share of Operating Costs and Taxes".

9. The following paragraph is added after Paragraph 19(a) of the Lease:

Nothing contained in this Lease shall, however, limit or prejudice the right of Landlord to prove for and obtain in proceedings for bankruptcy or insolvency by reason of the termination of the Lease, an amount equal to the maximum allowed by any statute or rule of law in effect at the time when, and governing the proceedings in which, the damages are to be proved, whether or not the amount be greater, equal to, or less than the amount of the loss or damages referred to above.

10. The following paragraphs are added to the Lease:

20.27 Landlord's Consent. Except where otherwise provided herein, an any instance where the approval or consent of the Landlord is required, the granting or denying of such approval or consent shall be within the sole and unfettered discretion of the Landlord, and the Landlord shall not for any reason or to any extent by required to grant such approval or consent.

20.28 Common Areas and Facilities. Landlord may make available to Tenants or tenants, from time to time, exercise facilities, sport courts, lunch rooms, or similar areas. Tenant acknowledges that such facilities may only be used by Tenant and its employees; Tenant shall not permit the facilities to be used by Tenant's vendors, customers, family members, friends, or other persons. All persons using such facilities shall use the facilities at their own risk, and Landlord shall not be responsible for damage or injury. Landlord reserves the right to modify, move or eliminate any common area or facility at any time if Landlord deems it appropriate for reasons or health or safety or for purposes of expanding or contracting existing or future tenant's premises.

11. Tenant shall have a first right of refusal to lease other space in the Building on the terms and conditions set forth in paragraph 8 of Addendum 1; the parties acknowledge CH2M Hill no longer has a prior right of refusal.

12. Tenant acknowledges and agrees to be bound by the Rules and Regulations attached hereto, which Rules and Regulations may be revised and amended by Landlord from time to time pursuant to Section 20.14 of the Lease. Notwithstanding the foregoing, Tenant shall be allowed to keep small animals such as mice, rats, and rabbits on the Premises for scientific experimental purposes. Tenant shall at all times keep the animals in cages or under control, and Tenant shall indemnify, defend, and hold harmless Landlord from any damage (including but not limited to vandalism and other damage caused by third persons) caused by or arising from Tenant's keeping or use of the animals on the Premises.

13. Tenant acknowledges and agrees that Tenant is leasing the additional 5,227 square feet in its existing condition, "as is". Landlord shall have no obligation and shall bear no expense with respect thereto.

14. No additional Security Deposit is required of Tenant.

15. Except as set forth in this Agreement, the terms and provisions of the Lease remain unchanged and in full force and effect.

In witness whereof, the parties have executed this Agreement in duplicate as of September 1, 1996.

RESEARCH WAY INVESTMENTS, by
Rex Jacobsma, its
general partner

By: _____

Title: General Partner

ANTIVIRALS, INC.

By: _____

Title: COO/CFO

EXHIBIT B

RULES AND REGULATIONS

1. No part of the whole of the sidewalks, parking area, entrances, passages, courts, or vestibules of the Premises shall be obstructed or encumbered by any Tenant or used for any other purpose other than ingress and egress to and from the space demised to such Tenant.
2. No awnings or other projections shall be attached to the inside or outside walls or windows of the Premises. No curtains, blinds, shades, or screens shall be attached to or hung in, or used in connection with, any window or door of the space demised to any Tenant.
3. No sign, advertisement, object notice, or other lettering shall be exhibited, inscribed, painted or affixed on any part of the outside or inside of the space demised to any Tenant or of the Premises, without the express written consent of the Landlord.
4. The water and wash closets and other plumbing fixtures shall not be used for any purposes other than those for which they were constructed, and no sweeping, rubbish, rags, or other substances (including, without limitation, coffee grounds) shall be thrown herein.
5. No Tenant shall bring or keep, or permit to be brought or kept, any flammable, combustible, or explosive fluid, material, chemical, or substance in or about the Premises.
6. No Tenant shall mark, paint, drill into, or in any way deface, any part of the Premises or the Property. No boring, cutting, or stringing of wires shall be permitted unless previously approved by Landlord.
7. No cooking shall be done or permitted in the Premises by any Tenant without prior written consent from Landlord. No Tenant shall cause or permit any unusual or objectionable odors to emanate from the space demised to such Tenant.
8. Neither the whole nor any part of the space demised to any Tenant shall be used for the storage of merchandise, or for the sale of merchandise goods, or property of any kind at auction.
9. No additional locks or bolts of any kind shall be placed upon any of the doors or windows in the space demised to any Tenant, nor shall any changes be made in locks or mechanism thereof. Each Tenant must, upon the termination of his tenancy, restore to Landlord all keys, either furnished to, or otherwise procured, by such Tenant, and in the event of the loss of any such keys, such Tenant shall pay Landlord the reasonable cost of replacement keys.
10. All removals from the Building, or the carrying in or out from the Premises of any safes, freight, furniture, or bulky matter of any description must take place during such hours and in such manner as Landlord or its agents may determine from time to time.

    Landlord reserves the right to inspect all freight to be brought into the Premises and to exclude from the Premises all freight which violates any of these rules and regulations of the provisions of such Tenant’s Lease.

EXHIBIT B

RULES AND REGULATIONS

11. No Tenant shall use or occupy or permit any portion of the Premises to be used or occupied for the storage, manufacture, or sale of liquor, narcotics or drugs. No Tenant shall engage or pay any employees of Landlord or Landlord's agents.

12. Landlord shall have the right to prohibit any advertising by any Tenant which, in Landlord's opinion, tends to impair the reputation of the Premises or its desirability, and upon notice from Landlord, such Tenant shall refrain from or discontinue such advertising.

13. Each Tenant, before closing and leaving the space demised to such Tenant at any time, shall see that all entrance doors and Property security gates are locked.

14. Landlord reserves the right to control and operate the public portions of the Property and the public facilities, as well as facilities furnished for the common use of the Tenants, in such manner as it deems best for the benefit of the Tenants generally.

15. No space demised to any Tenant shall be used, or permitted to be used, for lodging, or sleeping or for any immoral or illegal purposes.

16. The requirements of Tenants will be attended to only upon application at the office of the Landlord. Building employees shall not be required to perform, and shall not be requested by any Tenant to perform any work outside of their regular duties, unless under specified instructions from the office of Landlord.

17. Canvassing, soliciting, and peddling on the Premises and the Property are prohibited, and each Tenant shall cooperate in seeking their prevention.

18. There shall not be used in the Building, either by Tenant or by its agents or contractors, in the delivery or receipt of merchandise, freight, or other matter, any hand trucks or other means of conveyance except those equipped with rubber tires, rubber side guards, and other safeguards as Landlord may require.

19. No animals of any kind shall be brought into or kept about the Premises or Property by any Tenant.

20. No Tenant shall place, or permit to be placed, on any part of the floor or floors of the space demised to such Tenant a load exceeding the floor load per square foot which such floor was designed to carry and which is allowed by law.

21. No vending machines shall be permitted to be placed or installed in any part of the Premises by any Tenant without written approval from the Landlord.

EXHIBIT B

RULES AND REGULATIONS

22. No radio or television antenna or other device shall be erected on the roof or exterior wall of the Premises without first obtaining in each instance the Landlord's consent in writing. Any antenna or device installed without such written consent shall be subject to removal at Tenant's expense without notice at any time.

23. No loud speakers, television, phonographs, radios, tape players, or other devices shall be used in a manner so as to be heard or seen outside of the Premises without the prior written consent of Landlord.

24. The plumbing facilities shall not be used for any other purpose than that for which they are constructed; no foreign substance of any kind shall be thrown therein, and the expense of any breakage, stoppage, or damage resulting from a violation of this provision shall be borne by Tenant. If there is no plumbing in Tenant's Premises, but in the Common Area only, then the plumbing will be maintained and repaired by the Landlord, unless otherwise stated.

25. The Common Area hallways, if applicable, shall be kept free and clear from any inventory, merchandise, stored materials, or materials being received.

26. Tenant shall not burn any trash or garbage of any kind in or around the Premises.

27. Tenant shall keep and maintain the Premises (including without limitation, exterior and interior portions of all windows, doors, and all other glass) in a neat and clean condition.

28. Tenant shall not install, operate or maintain in the Premises any electrical equipment which does not bear underwriter's approval, or which would overload the electrical system or any part thereof beyond its capacity for proper and safe operation as determined by Landlord.

29. Tenant shall not suffer, allow or permit any vibration, noise, light, odor, or other effect to emanate from the Premises, or from any machine or other installation therein, or otherwise suffer, allow or permit the same to constitute a nuisance or otherwise interfere with the safety, comfort and convenience of Landlord or any of the other tenants of the Property.

30. Landlord reserves the right, at any time and from time to time to rescind, alter, or waive, in whole or in part, any of these Rules and Regulations when it is deemed necessary, desirable, or proper, in Landlord's judgment, for its best interests or for the best interests of the Tenants and the Property.

Exhibit 10.57

SCHNITZER NORTH CREEK
LEASE AGREEMENT

S/I NORTH CREEK VII, LLC
(Landlord)

and

AVI BIOPHARMA, INC.
(Tenant)

Dated: October 20, 2010

SCHNITZER-STANDARD FORM OFFICE LEASE (TRIPLE NET)

TABLE OF CONTENTS

THIS LEASE ("Lease") is dated for reference purposes as of the 20th day of October, 2010, by and between S/I North Creek VII LLC, a Washington limited liability company ("Landlord"), and AVI BioPharma, Inc., an Oregon corporation ("Tenant").

ARTICLE I: **DEFINITIONS**

1.01 **Defined terms**. The following terms shall have the meanings specified in this Section, unless otherwise specifically provided. Other terms may be defined in other parts of the Lease.

(a)	Landlord:	S/I North Creek VII LLC
(b)	Landlord's Address:	c/o Schnitzer West 818 Stewart Street, Suite 700 Seattle, Washington 98101 Telephone: (425) 452-3700 Facsimile: (425) 454-1505
	With a Copy to:	Jameson Babbitt Stites & Lombard, P.L.L.C. 999 Third Avenue, Suite 1900 Seattle, Washington 98104 Attn: Jennifer Cobb Telephone: (206) 292-1994 Facsimile: (206) 292-1995
(c)	Tenant:	AVI BioPharma, Inc.
(d)	Tenant's Address:	3450 Monte Villa Parkway Bothell, WA 98021 Attn: Controller
(e)	Tenant's Use:	General office and related uses
(f)	Project:	Schnitzer North Creek, including all buildings and Common Areas thereon and related thereto as legally described in Exhibit "A-I" and depicted on the Project Site Plan attached as Exhibit "B-1".

(g)	Property:	North Creek Technology Campus II, including all buildings and Common Areas thereon and related thereto as legally described in Exhibit "A-2" and depicted on the Property Site Plan attached as Exhibit "B-2".
(h)	Building:	That certain building designated as Building Q on the Property Site Plan attached hereto as Exhibit "B-2" and commonly known as 19909 120th Avenue NE, Bothell, Washington 98011.
(i)	Premises:	Approximately 8,398 rentable square feet as depicted on the Floor Plan(s) attached as Exhibit "C".
(j)	Term:	Commencing upon the Commencement Date (as defined in Section 4.01) and expiring on December 31, 2012.
(k)	Commencement Date:	November 8, 2010
(l)	Base Rent:	

Months	Rent PRSF (yr.)	Monthly Installments*
11/8/10 – 4/30/11	**$ 0.00**	**$ 0.00**
5/1/11 – 10/31/11	**$ 16.00**	**$ 11,197.33**
11/1/11 – 10/31/12	**$ 16.50**	**$ 11,547.25**
11/1/12 – 12/31/12	**$ 17.00**	**$ 11,897.17**

(m)	Prepaid Rent:	$11,197.33 applicable to Month 7
(n)	Security Deposit:	$11,897.17
(o)	Tenant's Share of Building:	12.3%
(p)	Tenant's Share of Property:	3.0%
(q)	Tenant's Share of Project:	0.8%
(r)	Parking Spaces:	29 uncovered, unreserved surface parking spaces in the Project shall be provided for the non-exclusive use of Tenant, its employees and visitors.
(s)	Broker(s):	There is no Landlord's Broker.

EDG Commercial Real Estate, representing Tenant ("Tenant's Broker")

(t) Guarantor(s) and Address(es): N/A

(u) Exhibits:

Exhibit A-1:	Legal Description of Project
Exhibit A-2:	Legal Description of Property
Exhibit B-1:	Project Site Plan
Exhibit B-2:	Property Site Plan
Exhibit C:	Floor Plan
Exhibit D:	Intentionally deleted.
Exhibit E	Preliminary Plans and Specifications for the Tenant Improvements
Exhibit F:	Intentionally deleted.
Exhibit G:	Estoppel Certificate
Exhibit H:	Rules and Regulations
Exhibit I:	Intentionally deleted.
Exhibit J:	Form of SNDA

ARTICLE II: **PREMISES AND COMMON AREAS LEASED**

2.01 **Premises**.

(a) Landlord hereby leases to Tenant, and Tenant hereby leases from Landlord, subject to the provisions of this Lease, certain premises described in Subsection 1.01(i) above ("Premises") located within the building described in Subsection 1.01(h) (the "Building") owned by Landlord, and which is a portion of the "Project" identified in Subsection 1.01(f). The Site Plan for the Project attached hereto as Exhibit B-1 is attached for location reference purposes only and shall not constitute a representation or warranty by Landlord to be the final plan of the Project, or to require Landlord to build any improvements, or to otherwise comply with the site plan or require Landlord to lease space to a particular tenant or type of tenant.

(b) The term "Rentable Area," "rentable square feet," "actual square footage" and words of similar import (whether or not spelled with initial capitals) as used in this Lease will be determined using the "Standard Method of Measuring Floor Area in Office Buildings" (reprinted June 7, 1996) by BOMA International. Tenant acknowledges that, except as otherwise expressly set forth in this Lease, neither Landlord nor any agent, property manager or broker of Landlord has made any representation or warranty with respect to the Premises, the Building, the Common Areas or the Project or their suitability for the conduct of Tenant's business and, that except only for any improvements that Landlord has expressly agreed herein to construct and

install, the Premises are leased in the "AS IS" condition existing at the time of execution of this Lease.

2.02 **Common Areas**. In addition to the Premises, Tenant shall have the non-exclusive right to use in common with other tenants and/or occupants of the Property and Project, the following areas appurtenant to the Building: parking areas and facilities, roadways, sidewalks, walkways, parkways, plazas, levees, driveways and landscaped areas and similar areas and facilities situated within the exterior areas of the Property and Project and not otherwise designated for the exclusive or restricted use by Landlord and/or individual tenants of other buildings located within the Project or other third parties (collectively, "Common Areas"). Tenant acknowledges that Landlord shall have no obligation to construct or complete any additional buildings within the Project or improvements to the Common Areas. Tenant's right to utilize the Common Areas shall at all times be subject to Landlord's reserved rights therein as described in Section 17.05 hereof, the Rules and Regulations referred to in Section 17.15 hereof and all encumbrances, easements, ground leases, and covenants, conditions and restrictions ("CC&Rs") now or hereafter affecting or encumbering the Project.

ARTICLE III: **IMPROVEMENTS**

3.01 **Construction of Tenant Improvements**.

(a) **Completion Schedule**. Landlord will complete the tenant improvements to be constructed by Landlord at the Premises ("Tenant Improvements") within thirty (30) days after the Commencement Date.

(b) **Description of Tenant Improvements**. The Tenant Improvements to be completed by Landlord are described on the outline plans and specifications for the Tenant Improvements (the "Outline Plans and Specifications for the Tenant Improvements") attached hereto and made a part hereof as "Exhibit E."

(c) **Construction of Tenant Improvements**. Landlord shall work with a general contractor chosen by Landlord (the "Contractor") for construction of the Tenant Improvements. Landlord shall supervise the completion of such work and shall use its good faith efforts to secure substantial completion of the Tenant Improvements in accordance with the schedule described in Paragraph 3.01(a) above. The cost of Tenant Improvements shall be paid as provided in Paragraph 3.01(d) below.

(d) **Payment of Tenant Improvements Costs**. Landlord shall provide the Tenant Improvements at its sole cost and expense.

3.02 **Completion**. Tenant shall, within five (5) days after Landlord completes the Tenant Improvements, provide Landlord with a list of incomplete and/or corrective items present in the Tenant Improvements. Landlord shall diligently complete, as soon as reasonably possible, any items of work and adjustment on such list as are not completed upon substantial completion of the Tenant Improvements.

ARTICLE IV: **TERM**

4.01 **Term**. The Term shall commence on the Commencement Date specified in Section 1.01(k) (the "Commencement Date"). The Term shall expire upon the date set forth in Section 1.01(j), unless sooner terminated as hereinafter provided. So long as Tenant does not interfere with Landlord's construction of the Tenant Improvements, Tenant shall be permitted to access the Premises prior to the Commencement Date for the purpose of preparing the Premises for Tenant's occupancy, and such early access shall be subject to all of the terms and conditions of this Lease except for the payment of Rent.

4.02 **Lease Confirmation**. Intentionally deleted.

4.03 **Option to Extend**. Landlord hereby grants Tenant the right to extend the term of the Lease for one (1) period of two (2) years (the "Extended Term") on the same terms and conditions contained in the Lease, except that (i) Base Rent for the Extended Term shall be as set forth herein below, (ii) no additional options to extend shall apply following the expiration of the Extended Term, and (iii) Landlord shall not be obligated to install any improvements or provide Tenant with any allowances with respect to the Extended Term. Written notice of Tenant's exercise of its option to extend ("Option to Extend") the Term of this Lease must be given to Landlord no less than nine (9) months nor more than twelve (12) months prior to the date the Term of the Lease would otherwise expire. Notwithstanding the above to the contrary, Tenant shall have no right to extend the Term of this Lease if Tenant has been in default under this Lease or occupies less than all of the Premises initially leased hereunder; provided, however that the period of time within which said option may be exercised shall not be extended or enlarged by reason of Tenant's inability to exercise said option because of the failure of any such conditions. In the event Tenant validly exercises its Option to Extend the Term of this Lease as herein provided, Base Rent shall be adjusted as of the commencement date of the Extended Term as follows:

(a) Within thirty (30) days after exercise of its Option to Extend by Tenant, Landlord shall provide Tenant with Landlord's determination of the fair market Base Rent for the Extended Term, including periodic increases as dictated by the current market ("Landlord's Determination of Base Rent for Extended Term"). Tenant shall provide notice to Landlord within fifteen (15) business days after receipt of such notice from Landlord as to whether Tenant accepts Landlord's Determination of Base Rent for Extended Term. In the event Tenant does not agree to Landlord's Determination of Base Rent for Extended Term, Landlord and Tenant shall

attempt to agree upon Base Rent for the Premises for the Extended Term, such rent to be the fair market rental value of the Premises for the Extended Term, as defined in Subsection (c) below. If the parties are unable to agree upon the Base Rent for the applicable Extended Term by the date three (3) months prior to the commencement of the Extended Term, then within ten (10) days thereafter each party, at its own cost and by giving notice to the other party, shall appoint a real estate appraiser with at least ten (10) years full-time commercial real estate appraisal experience in the area in which the Premises are located to appraise and set Base Rent for the Extended Term. If a party does not appoint an appraiser within ten (10) days after the other party has given notice of the name of its appraiser, the single appraiser appointed shall be the sole appraiser and shall set Base Rent for the Extended Term. If each party shall have so appointed an appraiser, the two appraisers shall meet promptly and attempt to set the Base Rent for the Extended Term. If the two appraisers are unable to agree within thirty (30) days after the second appraiser has been appointed, they shall attempt to select a third appraiser meeting the qualifications herein stated within ten (10) days after the last day the two appraisers are given to set Base Rent for the Extended Term. If the two appraisers are unable to agree on the third appraiser within such ten (10) day period, either of the parties to this Lease, by giving five (5) days notice to the other party, may apply to the then presiding judge of the Superior Court of King County for the selection of a third appraiser meeting the qualifications stated in this paragraph. Each of the parties shall bear one-half (1/2) of the cost of appointing the third appraiser and of paying the third appraiser's fee. The third appraiser, however selected, shall be a person who has not previously acted in any capacity for either party.

(b) Within thirty (30) days after the selection of the third appraiser, a majority of the appraisers shall set Base Rent for the Extended Term. If a majority of the appraisers are unable to set Base Rent within the stipulated period of time, the three appraisals shall be added together and their total divided by three (3). The resulting quotient shall be the Base Rent for the Premises during the Extended Term. If, however, the low appraisal and/or the high appraisal is/are more than ten percent (10%) lower and/or higher than the middle appraisal, the low appraisal and/or the high appraisal shall be disregarded. If only one (1) appraisal is disregarded, the remaining two (2) appraisals shall be added together and their total divided by two (2), and the resulting quotient shall be Base Rent for the Premises during the Extended Term.

(c) For purposes of the appraisal, the term "-fair market Base Rent-" shall mean the price that a ready and willing tenant would pay, as of the commencement date of the Extended Term, as a base rent to a ready and willing landlord of space of comparable size, quality and level of improvement, if such premises were exposed for lease on the open market for a reasonable period of time in the Bothell/Kirkland/Redmond/Bellevue market; including any rent increases over the Extended Term to the extent normal under then current market conditions. There shall be no adjustment to the fair market value related to tenant improvements, downtime, free rent, brokerage commissions or other concessions provided in the market at the time of renewal. In no event shall the fair market Base Rent determined pursuant to this Section 4.03 be less than the Base Rent in effect during the last month of the initial Lease Term.

(d) The Option to Extend granted hereunder is personal to Tenant or a Permitted Transferee (as hereafter defined) and shall be null and void in the event of an assignment of this Lease to any party other than a Permitted Transferee. In addition, this Option to Extend shall become null and void at Landlord's option and upon written notice to Tenant in the event Tenant becomes in material default beyond any applicable notice and cure period at any time during the initial Lease Term.

ARTICLE V: **RENT**

5.01 **Base Rent**. The Base Rent ("Base Rent") shall be as set forth in Section 1.01(1). The Base Rent shall be paid in advance on the first day of each and every month during the Term to Landlord at the address set forth in Section 1.01(b) hereof or at such other place as Landlord may direct in writing, without any prior notice or demand therefor and without any abatement, deduction, offset or setoff whatsoever. If the Term commences on any day other than the first day of a calendar month and/or ends on any day other than the last day of a calendar month, Base Rent for the fraction(s) of a month at the commencement and/or upon the expiration of the Term shall be prorated based upon the actual number of days in such fractional month(s). Simultaneously with execution of this Lease, Tenant shall deposit with Landlord the Prepaid Rent identified in Section 1. 01(m), which sum shall be applied by Landlord as indicated in said Section 1.01(m).

5.02 **Additional Rent**. In addition to Base Rent, Tenant shall pay to Landlord all sums of money or other charges required to be paid by the Tenant under this Lease (other than Base Rent and the Prepaid Rent), including but not limited to Tenant's Share of Operating Expenses (as defined in Article VI hereof) (all such sums being herein deemed "Additional Rent"), and whether or not the same are designated "Additional Rent" the same shall be payable in lawful money of the United States of America without deduction, set-off or abatement whatsoever. Any Additional Rent provided for in this Lease shall become due with the next monthly installment of Base Rent unless otherwise provided. The term "Rent", as used in this Lease, shall refer collectively to "Base Rent" and "Additional Rent."

5.03 **Late Payment**. If any payment of Rent is not received by Landlord within five (5) days after the same is due, Tenant shall pay to Landlord a late payment charge equal to five percent (5%) of the amount of such delinquent payment of Rent in addition to the installment of Rent then owing, regardless of whether or not a notice of default has been given by Landlord. Notwithstanding the foregoing, no late payment charge shall be assessed for the first such late payment in any twelve (12) month period if Tenant pays such overdue amount within five (5) days of Landlord's notice that such amount is past due. In addition, Tenant shall pay interest on such late payment and late charge from the due date of the late payment at an interest rate equal to the higher of: (a) twelve percent (12%) or (b) the prevailing prime (reference) rate as published by Bank of America (or any successor bank) at its Seattle main branch office, or any successor rate of interest, plus three (3) percentage points, but in no event higher than the maximum rate permitted by applicable law (hereafter the "Default Rate"), until such amounts are paid. Landlord and Tenant recognize that the damages which Landlord will suffer as a result of Tenant's failure to timely pay

Rent are difficult or impracticable to ascertain, and agree that said interest and late charge are a reasonable approximation of the damages which Landlord will suffer in the event of Tenant's late payment. This provision shall not relieve Tenant from payment of Rent at the time and in the manner herein specified. Acceptance by Landlord of any such interest and late charge shall not constitute a waiver of Tenant's default with respect to said overdue amount, nor shall it prevent Landlord from exercising any other rights or remedies available to Landlord.

5.04 **Security Deposit**. Tenant will simultaneously with execution of this Lease, deposit with Landlord the sum specified in Section 1.01(n) of this Lease. This sum shall belong to Landlord and shall constitute partial consideration for the execution of this Lease. Landlord shall pay Tenant the remaining balance thereof, without any liability for interest thereon, within thirty (30) days after the expiration or prior termination of the Lease Term, or any extension thereof, if and only if Tenant has fully performed all of its obligations under the terms of this Lease. Landlord shall be entitled to withdraw from the deposit the amount of any unpaid Base Rent, Additional Rent or other charges not paid to Landlord when due, and Tenant shall immediately redeposit an amount equal to that so withdrawn within three (3) days of demand.

ARTICLE VI: **ADDITIONAL RENT AND CHARGES**

6.01 **Operating Expenses**. In addition to Base Rent and other sums payable by Tenant under this Lease, Tenant shall pay to Landlord, as Additional Rent, Tenant's Share of the Operating Expenses (as such term is defined below).

(a) **Estimated Expenses; Annual Reconciliation** .

(i) Upon the Commencement of the Lease Term, and thereafter prior to the commencement of each calendar year occurring wholly or partially within the Term or as soon thereafter as practical, Landlord shall estimate the annual Operating Expenses payable by Tenant pursuant to this provision, and Tenant shall pay to Landlord on the first day of each month in advance; one-twelfth (1/12th) of Tenant's Share of such estimated amount. In the event that during any calendar year of the Term, Landlord determines that the actual Operating Expenses for such year will exceed the estimated Operating Expenses, Landlord may revise such estimate by written notice to Tenant, and Tenant shall pay to Landlord, concurrently with the regular monthly rent payment next due following the receipt of the revised estimate, an amount equal to the difference between the initial monthly estimate and the revised monthly estimate multiplied by the number of months expired during such calendar year and shall also pay an amount equal to the revised monthly estimate for the month of such payment. Subsequent installments shall be payable concurrently with the regular monthly Base Rent due for the balance of the calendar year and shall continue until the next calendar year's estimate is rendered or Landlord next revises its estimate of Operating Expenses, whichever occurs sooner.

(ii) Within one hundred twenty (120) days following the end of each year or a reasonable time thereafter, Landlord shall provide Tenant with a written statement of the actual total Operating Expenses for such year and there shall be an adjustment made to account for any difference between Tenant's Share of the actual and the estimated Operating Expenses for the previous year. If Tenant has overpaid the amount of Operating Expenses owing pursuant to this provision, Landlord shall, provided Tenant is not in default hereunder, credit such overpayment to Tenant's account. If Tenant has underpaid the amount of Operating Expenses owing pursuant to this provision, Tenant shall pay the total amount of such deficiency to Landlord as Additional Rent with the next payment of Base Rent due under this Lease following delivery of written notice of said deficiency from Landlord to Tenant.

(iii) In the event the average occupancy level of the Building, Property, or Project, as the case may be, for any calendar year was or is not one hundred percent (100%) of full occupancy, then the estimated Operating Expenses and actual Operating Expenses for such year shall be proportionately adjusted by Landlord to reflect those costs which have occurred had the Building, Property, and/or Project, as the case may be, been one hundred percent (100%) occupied during such year.

(iv) Landlord shall keep its books of account and records concerning Operating Expenses in compliance with generally accepted accounting principles and retain the same for two (2) years after the calendar year for which they were prepared. Unless Tenant objects in writing regarding specific discrepancies in the Operating Expense calculations for any calendar year within ninety (90) days after receipt of Landlord's final calculations for such calendar year, Tenant shall be deemed to have approved the same and to have waived the right to object to such calculations.

(b) **Defined terms**.

(i) **Operating Expenses Inclusions**. For purposes of this Lease, "Operating Expenses" means an amount equivalent to the total of all expenses and costs incurred in connection with the ownership, operation, management, maintenance, repair and replacement of the Project, the Property, the Building, the Premises and the Common Areas, including, but in no way limited to, the following:

A. The costs of operating, maintaining, repairing and replacing the Project, the Property, the Building, the Premises and the Common Areas, including but not limited to: janitorial services, gardening and landscaping; painting; lighting; sanitary control; personal property taxes; public liability insurance and property damage insurance; utilities for Common Areas; licenses and fees for Common Area facilities; sweeping; removal of snow and ice, trash, rubbish, garbage and other refuse; repairing, restriping and resurfacing of parking area; and maintenance of and property taxes on personal property, machinery and equipment used in Common Area maintenance.

B. All Real Property Taxes (as defined below) assessed against the Project, Property, the Building and/or the Common Areas, as applicable, including land, building(s) (including the Building) and improvements thereon or thereto.

C. All premiums for liability, terrorism, fire, extended coverage and other insurance the Landlord reasonably deems necessary and keeps in force on or with respect to the Project, the Property, the Building of which the Premises are a part and/or the Common Areas, as the case may be, and commercially reasonable deductibles payable in connection therewith.

D. The cost of operating, maintaining, repairing and replacing any electrical, mechanical, automatic fire sprinkler and other utilities systems serving the Premises which serve the Premises in common with the entire Building.

E. The cost of maintenance, repair and replacement of the non-structural portions of the roof, roof membrane, exterior walls, foundation, and other exterior portions of the Project and Building.

F. Reasonable property management charges (not to exceed 5% of annual gross receipts) together with the costs incurred in the operation of a management office relating to the Project, including, but not limited to the cost of rent and utilities with respect thereto.

G. Costs of replacements and improvements which are necessary to adequately maintain or protect the Project, the Property, the Building and/or the Common Areas, as the case may be, and/or which are required by law or governmental regulation enacted after the date of this Lease, which are of a capital nature (as determined by GAAP accounting) to the extent amortization over the useful life thereof is applicable to the periods during the Lease Term, and reasonable reserves for the same.

H. Any other costs levied, assessed or imposed by or at the direction of, or resulting from statutes or regulations or interpretations thereof promulgated by any federal or governmental authority in connection with the use or occupancy of the Project.

I. Assessments made on or with respect to the Project made pursuant to any CC&Rs, Public Utility District conditions, Local Improvement District conditions and/or owner’s associations affecting the Project, or any portion thereof.

J. Intentionally omitted.

K. Compensation (including wages and employer paid benefits and taxes) of employees and contractors to the extent engaged in the operation and maintenance of the Project, Property and/or Building.

(ii) **Operating Expense Exclusions**. Notwithstanding the foregoing, Operating Expenses to be reimbursed by Tenant shall not include:

A. Expenses which are separately metered or calculated for the Premises or other leased area of the Project or the Building, as the case may be, which expenses shall be billed separately to Tenant or such other tenant(s), as applicable.

B. Costs incurred in connection with the initial construction or design of the Building or to correct defects in the original construction or design of the Building.

C. Depreciation.

D. Costs, fines or penalties incurred due to violation by Landlord of any applicable law.

E. Expenses incurred by Landlord in respect of individual tenants and/or the improvement or renovation of tenants' leasehold improvements, including leasing commissions, attorneys' fees arising from lease disputes and other specific costs incurred for the account of, separately billed to and paid by specific tenants.

F. Repairs or replacements to the extent that the cost of the same is recoverable by the Landlord pursuant to original construction warranties.

G. Interest on debt or capital retirement of debt, and costs of capital improvements except as expressly provided above.

H. Legal fees and disbursements relating to legal matters other than such fees and costs directly relating to Operating Expense issues in connection with the Project, the Building, the Premises and/or the Common Areas.

I. Costs incurred due to the negligence of Landlord or breach by Landlord of its obligations under any lease.

J. Costs occasioned by casualties (other than insurance deductibles) or by the exercise of the power of eminent domain.

K. Costs of renovating, improving, painting or redecorating another tenant's space.

L. Intentionally deleted.

M. Costs incurred in connection with the remediation of any Hazardous Material, except to the extent caused by the release or emission of the Hazardous Material in question by Tenant

N. Costs of structural repairs to the Building except as specifically allowed under subsection 6.01(b)(i)(G) above.

Additional Rent payable by Tenant which would not otherwise be due until after the date of the expiration or earlier termination of the Lease shall, if the exact amount is uncertain at the time this Lease expires or terminates, be paid by Tenant to Landlord upon such expiration or termination in an amount to be determined by Landlord, with an adjustment to be made once the exact amount is known.

(iii) **Tenant's Share**. For purposes of this Lease, "Tenant's Share" means the percentage, as set forth in Section 1.01(o), Section 1.01(p), or Section 1.01(q), as appropriate, and obtained by dividing the Rentable Area of the Premises by the aggregate Rentable Area of all premises available for lease, whether leased or not, in the Building, the Property, or the Project, as applicable with respect to any specific Operating Expense, subject to adjustment in the event of changes in Rentable Area of the Project, Property, Building and/or Premises (including changes do to any transfer of a portion of the Project or Property pursuant to Section 17.04 below). Notwithstanding the above, Landlord shall have the right, but not the obligation, to equitably adjust Tenant's Share of any specific Operating Expense so as to render such expense payable proportionately by those tenants benefited by the same or otherwise in order to appropriately allocate such Operating Expense to cover the area covered by such Operating Expense.

(iv) **Real Property Taxes**. For purposes of this Lease, "Real Property Taxes" shall consist of all real estate taxes and all other taxes relating to the Building, the Common Areas, the Property, and/or the Project, as applicable, all other taxes which may be levied in lieu of real estate taxes, all assessments, local improvement districts, assessment bonds, levies, fees and other governmental charges, including, but not limited to, charges for traffic facilities and improvements, water service studies, and improvements or amounts necessary to be expended because of governmental orders, whether general or special, ordinary or extraordinary, unforeseen as well as foreseen, of any kind and nature for public improvements, services, benefits, or any other purpose, which are assessed, levied, confirmed, imposed or become a lien upon the Building or any portion of the Project, the Property and/or the Common Areas, or become payable during the Term (or which become payable after the expiration or earlier termination hereof and are attributable in whole or in part to any period during the Term hereof), together with all costs and expenses incurred by Landlord in successfully contesting, resisting or appealing any such taxes, rates, duties, levies or assessments. "Real Property Taxes" shall exclude any franchise, estate, inheritance or succession transfer tax of Landlord, or any federal or state income, profits or revenue tax or charge upon the net income of Landlord from all sources; provided, however, that if at any time during the Term there is levied or assessed against Landlord a federal, state or local tax or excise tax on rent, or any other tax however described on account of rent or gross receipts or any

portion thereof, Tenant shall pay one hundred percent (100%) of the Tenant's Share of any said tax or excise applicable to Tenant's Rent as Additional Rent. Landlord shall pay or recover all taxes and assessments over the longest permitted term.

6.02 **Tenant's Personal Property Taxes**. Tenant shall pay or cause to be paid, prior to delinquency, any and all taxes and assessments levied upon all trade fixtures, inventories and other real or personal property placed or installed in and upon the Premises by Tenant. If any such taxes on Tenant's personal property or trade fixtures are levied against Landlord or Landlord's property or if the assessed value of the Building is increased by the inclusion therein of a value placed upon such real or personal property or trade fixtures of Tenant, and if Landlord pays the taxes based upon such increased assessment, Tenant shall, upon demand, repay to Landlord the taxes so levied or the portion of such taxes resulting from such increase in the assessment.

ARTICLE VII: **INSURANCE**

7.01 **Landlord's Insurance**. During the Term, Landlord shall procure and maintain in full force and effect with respect to the Building (i) a policy or policies of property insurance covering the full replacement value of the Building (including, to the extent required, sprinkler leakage, vandalism and malicious mischief coverage, and any other endorsements required by the holder of any fee or leasehold mortgage and earthquake, flood and terrorism insurance to the extent Landlord reasonably deems prudent and/or to the extent required by any mortgagee); and (ii) a policy of commercial liability insurance, in the form and content acceptable to Landlord, insuring Landlord's activities with respect to the Premises, the Common Areas and the Project for loss, damage or liability for personal injury or death of any person or loss or damage to property occurring in, upon or about the Premises, Common Areas or Project in an amount of not less than Three Million Dollars ($3,000,000) combined single limit. If the annual premiums charged Landlord for such casualty and/or liability insurance exceed the standard premium rates because the nature of Tenant's operations results in increased exposure, then Tenant shall, upon receipt of appropriate premium invoices, reimburse Landlord for such increased amount. Landlord shall have the right, at its option, to keep and maintain in full force and effect during the Term such other insurance in such amounts and on such terms as Landlord and/or any mortgagees or the beneficiary of any trust deed against the Building, or all or a portion of the Project, may reasonably require from time to time in form, in amounts and for insurance risks against which a prudent Landlord would protect itself, including but not limited to rental abatement, rental interruption, earthquake, flood and terrorism insurance.

7.02 **Tenant's Public Liability**. Tenant shall, at its own cost and expense, keep and maintain in full force during the Term and any other period of occupancy of the Premises by Tenant, a policy or policies of commercial liability insurance, written by a reputable insurance company authorized to do business in the State of Washington in form and content acceptable to Landlord insuring Tenant's activities with respect to the Premises, the Common Areas and the Project for loss, damage or liability for personal injury or death of any person or loss or damage to

property occurring in, upon or about the Premises in an amount of not less than Three Million Dollars ($3,000,000) combined single limit or such larger amounts as may hereafter be reasonably requested by Landlord. The policy shall insure the hazards of the Premises and Tenant's operations therein, shall include independent contractor and contractual liability coverage (covering the indemnity contained in Section 7.08 hereof) and shall (a) name Landlord, Landlord's managing agent and the Landlord's mortgagee under a mortgage or beneficiary under a deed of trust either having a first lien against the Building or Project (the "Lender") as an additional insured; (b) contain a cross-liability provision and; (c) contain a provision that the insurance provided hereunder shall be primary and non-contributing with any other insurance available to Landlord.

7.03 **Tenant's Property and Other Insurance**. Tenant shall, at its own cost and expense, keep and maintain in full force during the Term and any other period of occupancy of the Premises, a policy or policies of standard form property insurance insuring against the perils of fire, extended coverage, vandalism, malicious mischief, special extended coverage and sprinkler leakage. This insurance policy shall be upon all property owned by Tenant, for which Tenant is legally liable or that was installed at Tenant's expense, and which is located in the Premises, including without limitation, furniture, fittings, installations, cabling, fixtures (other than the improvements installed by Landlord), and any other personal property, in the amount of not less than one hundred percent (100%) of the full replacement costs thereof. This insurance policy shall also insure direct or indirect loss of Tenant's earning attributable to Tenant's inability to use fully or obtain access to the Premises.

7.04 **Form of Insurance/Certificates**. All policies shall be written in a form satisfactory to Landlord and shall be taken out with insurance companies licensed in the state in which the Building is located and holding a General Policy Holder's Rating of "A" and a financial rating of "X" or better, as set forth in the most current issues of Best's Insurance Guide. Tenant shall furnish to Landlord, prior to Tenant's entry into the Premises and thereafter within ten (10) days prior to the expiration of each such policy, a certificate of insurance (or renewal thereof) issued by the insurance carrier of each policy of insurance carried by Tenant pursuant hereto and, upon request by Landlord, a copy of each such policy of insurance. Said certificates shall expressly provide that such policies shall not be cancelable or subject to reduction of coverage below the minimum amounts required by this Lease or required by any lender having an interest in the Building or otherwise be subject to modification except after thirty (30) days prior written notice to the parties named as insured in this Section 7.04.

7.05 **Tenant's Failure**. If Tenant fails to maintain any insurance required in the Lease, Tenant shall be liable for any loss or cost resulting from said failure, and Landlord shall have the right to obtain such insurance on Tenant's behalf and at Tenant's sole expense. This Section 7.05 shall not be deemed to be a waiver of any of Landlord's rights and remedies under any other Section of this Lease. If Landlord obtains any insurance which is the responsibility of Tenant to obtain under this Article VII, Landlord shall deliver to Tenant a written statement setting forth the cost of any such insurance and showing in reasonable detail the manner in which it has been computed and Tenant shall promptly remit said amount as Additional Rent to Landlord.

7.06 **Waiver of Subrogation**. Any an risk policy or policies of fire, extended coverage or similar casualty insurance which either party obtains in connection with the Building, the Premises or Tenant's personal property therein shall include a clause or endorsement denying the insurer any rights of subrogation against the other party to the extent rights have been waived by the insured prior to the occurrence of injury or loss. Notwithstanding anything to the contrary herein, Landlord and Tenant waive any rights of recovery against the other for liability, injury or loss due to hazards covered by a standard all-risk property insurance policy, or any property insurance required to be carried hereunder, regardless of the negligence of either party.

7.07 **Tenant's Properties and Fixtures**. Tenant assumes the risk of damage to any furniture, equipment, machinery, goods, supplies or fixtures which are or remain the property of Tenant or as to which Tenant retains the right of removal from the Premises, except to the extent due to the negligent act or omission, or willful misconduct of Landlord. Tenant shall not do or keep anything in or about the Premises (except those things Tenant presently does and keeps in connection with the uses set forth in Section 10.01) which will in any way tend to increase insurance rates paid by Landlord and maintained with respect to the Premises and/or the Project unless Tenant pays directly to Landlord the increase cost of the premiums. In no event shall Tenant carry on any activities which would invalidate any insurance coverage maintained by Landlord. If Tenant's occupancy or business in, or on, the Premises, whether or not Landlord has consented to the same, results in any increase in premiums for the insurance carried by Landlord with respect to the Building and/or the Project, Tenant shall pay any such increase in premiums as Additional Rent within ten (10) days after being billed therefore by Landlord. In determining whether increased premiums are a result of Tenant's use of the Building, a schedule issued by the organization computing the insurance rate on the Building and/or the Project showing the various components of such rate shall be conclusive evidence of the several items and charges which make up such rate. Tenant shall promptly comply with all reasonable requirements of the insurance underwriters and/or any governmental authority having jurisdiction thereover, necessary for the maintenance of reasonable fire and extended insurance for the Building and/or the Project.

7.08 **Indemnification**.

(a) (i) Tenant, as a material part of the consideration to be rendered to Landlord, hereby indemnifies and agrees to defend and hold Landlord, Landlord's managing agent and Lender, the Premises and the Project harmless for, from and against (i) any and all liability, penalties, losses, damages, costs and expenses, demands, causes of action, claims, judgments or appeals arising from any injury to any person or persons or any damage to any property to the extent as a result of Tenant's or Tenants' officers, employees, agents, assignees, subtenants, concessionaires, licensees, contractors or invitees' acts or omissions (including negligence or willful misconduct), or resulting from any breach or default in the performance of any obligation to be performed by Tenant hereunder or for which Tenant is responsible under the terms of the Lease, and (ii) from and against all reasonable legal costs and charges, including reasonable attorneys' and other reasonable professional fees, incurred in and about any of such

matters and the defense of any action arising out of the same or in discharging the Project, the Property and/or Premises or any part thereof from any and all liens, charges or judgments which may accrue or be placed thereon by reason of any act or omission of the Tenant, except and to the extent as may arise out of the negligence or willful misconduct of Landlord and/or its agents, employees or contractors.

(ii) Landlord, as a material part of the consideration to be rendered to Tenant, hereby indemnifies and agrees to defend and hold Tenant and the Premises harmless from and against (i) any and all liability, penalties, losses, damages, costs and expenses, demands, causes of action, claims, judgments or appeals arising from any injury to any person or persons or any damage to any property to the extent as a result of the negligence or willful misconduct of Landlord or Landlord's officers, employees, agents, or contractors, and (ii) from and against all reasonable legal costs and charges, including reasonable attorneys' and other reasonable professional fees, incurred in and about any of such matters and the defense of any action arising out of the same or in discharging Tenant and/or Premises or any part thereof from any and all liens, charges or judgments which may accrue or be placed thereon by reason of any act or omission of the Landlord, except and to the extent as may arise out of the negligence or willful misconduct of Tenant and/or its officers, agents, employees, assignees, subtenants, concessionaires, licensees, contractors, or invitees.

(b) In the event of the concurrent negligence of Tenant, its sublessees, assignees, invitees, agents, employees, contractors, or licensees on the one hand and the negligence of Landlord, its agents, employees or contractors on the other hand, which concurrent negligence results in injury or damage to persons or property of any nature and howsoever caused, and relates to the construction, alteration, repair, addition to, subtraction from, improvement to or maintenance of the Common Areas or Premises such that RCW 4.24.115 is applicable, then (i) Tenant's obligation to indemnify Landlord as set forth in this Section 7.08 shall be limited to the extent of Tenant's negligence and that of Tenant's officers, sublessees, assignees, invitees, agents, employees, contractors or licensees, including Tenant's proportional share of costs, reasonable attorneys' fees and expenses incurred in connection with any claim, action or proceeding brought with respect to such injury or damage; and (ii) Landlord's obligation to indemnify Tenant as set forth in this Section 7.08 shall be limited to the extent of Landlord's negligence and that of Landlord's officers, agents, employees, contractors or licensees, including Landlord's proportional share of costs, reasonable attorneys' fees and expenses incurred in connection with any claim, action or proceeding brought with respect to such injury or damage.

(c) LANDLORD AND TENANT HEREBY WAIVE AND AGREE THAT IT WILL NOT ASSERT ITS INDUSTRIAL INSURANCE IMMUNITY UNDER TITLE 51 RCW IF SUCH ASSERTION WOULD BE INCONSISTENT WITH THE RIGHT OF THE OTHER PARTY TO INDEMNIFICATION PURSUANT TO THIS ARTICLE 7. THE PARTIES AGREE THAT THIS PROVISION WAS MUTUALLY NEGOTIATED AND RELATES ONLY TO A WAIVER OF IMMUNITY WITH RESPECT TO THE OTHER

PARTY AND NO THIRD PARTY, INCLUDING BUT NOT LIMITED TO, ANY INJURED EMPLOYEE OF EITHER PARTY, SHALL BE A THIRD PARTY BENEFICIARY OF THIS PROVISION.

(d) In no event shall Landlord, its agents, employees and/or contractors be liable for any personal injury or death or property damage caused by other lessees or persons in or about the Premises, the Project and/or the Building, as the case may be, or caused by public or quasi-public work, or for consequential damages arising out of any loss of the use of the Premises or any equipment or facilities therein by Tenant or any person claiming through or under Tenant.

7.09 **Damage to Tenant's Property**. Notwithstanding the provisions of Section 7.08 to the contrary, except to the extent due to the negligence or willful misconduct of Landlord, Landlord, its agents, employees and/or contractors shall not be liable for (i) any damage to property entrusted to employees or security officers of the Project, Building or the Property, (ii) loss or damage to any property by theft or otherwise, or (iii) any injury or damage to persons or property resulting from fire, explosion, falling substances or materials, steam, gas, electricity, water or rain which may leak from any part of the Building, the Common Areas, Project or the Property or from the pipes, appliances or plumbing work therein or from the roof, street, or subsurface or from any other place or resulting from dampness or any other cause, except to the extent Landlord receives consideration for such damage or injury from a third party. Neither Landlord nor its agents, employees or contractors shall be liable for interference with light. Tenant shall give prompt notice to Landlord and appropriate emergency response officials if Tenant is or becomes aware of fire or accidents in the Building, the Common Areas or any other portion of the Project or of defects therein in the fixtures or equipment.

ARTICLE VIII: **REPAIRS AND MAINTENANCE**

8.01 **Landlord Repairs and Maintenance**. Subject to Landlord's right to reimbursement from Tenant pursuant to Sections 6.01 and 8.03, to the extent applicable, Landlord shall at its expense maintain in good condition and repair the structural portions of the Building including without limitation the foundation, roof and membrane, elevators, heating, ventilation, air-conditioning, and other utility and mechanical systems serving the Building, and shall maintain in good condition the exterior of the Building, utilities to their point of connection to the Premises and the Common Areas of the Project. Landlord shall not be liable for any failure to make any repairs or to perform any maintenance unless such failure shall persist for an unreasonable time after written notice of the need for such repairs or maintenance is given to Landlord by Tenant. There shall be no abatement of Rent and, except for the negligence or willful misconduct of Landlord or its employees, no liability of Landlord by reason of any injury to or interference with Tenant's business arising from the making of any repairs, alterations or improvement in or to any portion of the Premises or in or to fixtures, appurtenances and equipment therein; provided, that Landlord, its employees, agents and contractors use reasonable efforts not to unreasonably interfere with

Tenant's business in exercise of Landlord's rights or obligations hereunder. Except as may otherwise be expressly set forth herein, Tenant affirms that (a) neither Landlord nor any agent, employee or officer of Landlord has made any representation regarding the condition of the Premises, the Building, the Common Areas or the Project, and (b) Landlord shall not be obligated to undertake any repair, alteration, remodel, improvement, painting or decorating.

8.02 **Utilities and Services**. Subject to reimbursement pursuant to Sections 6.01 and 8.03 hereof, to the extent applicable, Landlord shall furnish or cause to be furnished to the Premises lines for water, electricity, sewage and telephone. Tenant shall pay before delinquency, at its sole cost and expense, all charges for water, heat, electricity, power, telephone service, sewer service charges and other utilities or services charged or attributable to the Premises; provided, however, that if any such services or utilities shall be billed to Landlord and are not separately billed to the Premises, Tenant shall pay to Landlord as Additional Rent, an amount equal to that proportion of the total charges therefor which the Rentable Area of the Premises bears to the rentable area of leased area covered by such charges. Notwithstanding the above, in the event Tenant uses any such services during non-standard building hours, Tenant shall pay the actual cost of such after-hours services used by Tenant. Notwithstanding the foregoing, if there occurs an interruption or failure of services or utilities which is caused by Landlord and it is within Landlord's reasonable control to repair and such interruption or failure materially interferes with Tenant's ability to conduct business within the Premises and continues for a period of more than seven (7) consecutive business days then, from the first day of the existence of such condition, the Base Rent payable by Tenant hereunder shall be abated for the portion of the Premises for which normal and usual utilization by Tenant is made impractical, such abatement to be effective for the full period such condition exists and until the repairs or corrections are made or the services or utilities are restored.

8.03 **Tenant Repairs and Maintenance**. Except as otherwise set forth in Sections 8.01 and 8.02 above, Tenant shall, at Tenant's sole cost and expense, keep, maintain and, to the extent reasonably required, replace the entire Premises, including but not by way of limitation, all interior walls, doors, ceiling, fixtures, furnishings, drapes, specialty lamps, light bulbs, starters and ballasts, subfloors, carpets and floor coverings, in good repair and in a clean and safe condition; provided that Landlord shall have the right to perform such work on behalf of Tenant in which event Tenant shall reimburse Landlord for the cost thereof promptly upon demand therefor. In addition, if any repair or maintenance is necessary or prudent under Sections 8.01 or 8.02 as a result of an act or omission of Tenant or its agents, employees or contractors, Tenant shall reimburse Landlord for the entire cost of any such repair or maintenance immediately upon written demand therefor except to the extent such cost is reimbursed through Landlord's insurance. Upon expiration or earlier termination of the Term, Tenant shall surrender the Premises to Landlord in the same condition as when leased, reasonable wear and tear, damage by fire or other casualty not required to be repaired by Tenant pursuant to this Lease, and Alterations permitted to be surrendered with the Premises excepted.

8.04 **Non-liability of Landlord**. Notwithstanding anything to the contrary contained in Sections 8.01 or 8.02 above or elsewhere in this Lease, Landlord shall not be in default hereunder or be liable for any damages directly or indirectly resulting from, nor shall the Rent herein reserved be abated or rebated by reason of (a) the interruption or curtailment of the use of the Premises as a result of the installation of any equipment in connection with the Building or Project; or (b) any failure to furnish or delay in furnishing any services required to be provided by Landlord, unless and to the extent such failure or delay is caused by accident or any condition created by Landlord's negligence; or (c) the limitation, curtailment, rationing or restriction of the use of water or electricity, gas or any other form of energy or any other service or utility whatsoever serving the Premises or Project.

8.05 **Inspection of Premises**. Landlord may enter the Premises to complete construction undertaken by Landlord on the Premises, to inspect, clean, improve or repair the same, to inspect the performance by Tenant of the terms and conditions hereof, show the Premises to prospective purchasers, tenants (during the last twelve (12) months of the Term) and lenders and for all other purposes as Landlord shall reasonably deem necessary or appropriate; provided, that Landlord shall provide prior notice of such entry (except in the case of emergency) and shall use reasonable efforts not to interfere with Tenant's business in exercise of Landlord's rights hereunder. Tenant hereby waives any claim for damages for any injury or inconvenience to or interference with Tenant's business, any loss of occupancy or quiet enjoyment of the Premises and any other loss in, upon or about the Premises, arising from exercise by Landlord of its rights hereunder except as otherwise provided in Article XI hereof.

ARTICLE IX: **FIXTURES, PERSONAL PROPERTY AND ALTERATIONS**

9.01 **Fixtures and Personal Property**. Tenant, at Tenant's expense, may install any necessary trade fixtures, equipment and furniture in the Premises, provided that such items are installed and are removable without damage to the structure of the Premises, including, but not limited to, damage to drywall, doors, door frames and floors. Landlord reserves the right to approve or disapprove of any interior improvements which are visible from outside the Premises or which violate the CC&R's on wholly aesthetic grounds. Such improvements must be submitted for Landlord's written approval prior to installation, or Landlord may remove or replace such items at Tenant's sole expense. Said trade fixtures, equipment, furniture, cabling and personal property shall remain Tenant's property and shall be maintained in good condition while on the Premises and removed by Tenant upon the expiration or earlier termination of the Lease. As a covenant which shall survive the expiration or earlier termination of the Lease, Tenant shall repair, at Tenant's sole expense, or at Landlord's election, reimburse Landlord for the cost to repair all damage caused by the installation or removal of said trade fixtures, equipment, cabling, furniture, personal property or temporary improvements. If Tenant fails to remove the foregoing items prior to or upon the expiration or earlier termination of this Lease, Landlord, at its option and without liability to Tenant for loss thereof, may keep and use them or remove any or all of them and cause them to be stored or sold in accordance with applicable law, and Tenant shall, upon demand of

Landlord, pay to Landlord as Additional Rent hereunder all costs and expenses incurred by Landlord in so storing and/or selling said items. In the event any such fixtures, equipment, and/or furniture of Tenant are sold by Landlord, the proceeds of such sale shall be applied, first, to all expenses of Landlord incurred in connection with storage and sale; second, to any amounts owed by Tenant to Landlord under this Lease or otherwise, and, third, the remainder, if any, shall be paid to Tenant.

9.02 **Alterations**. Tenant shall not make or allow to be made any material alterations, additions or improvements to the Premises (defined as alterations, additions or improvements costing in excess of $5,000.00 individually or in the aggregate with respect to separate items relating to the same improvement or alteration, or alterations, additions or improvements which affect the structure or exterior of the Building or any building, mechanical, electrical or life safety system), either at the inception of the Lease or subsequently during the Term, without obtaining the prior written consent of Landlord, that consent may be withheld in Landlord's sole discretion with respect to any alteration, addition or improvement that affects the structure or exterior of the Building or any building, mechanical, electrical or life safety systems. Tenant shall deliver to Landlord the contractor's name, references and state license number, a certificate of liability insurance naming Landlord and Landlord's manager and lender(s) as an additional insured, as well as full and complete plans and specifications of all such alterations, additions or improvements, and any subsequent modifications or additions to such plans and specifications, and no proposed work shall be commenced or continued by Tenant until Landlord has received and given its written approval of each of the foregoing. Landlord shall either approve or disapprove any proposed alteration, addition or improvement on or before thirty (30) days following receipt of all of the foregoing items. Landlord does not expressly or implicitly covenant or warrant that any plans or specifications submitted by Tenant are accurate, safe or sufficient or that the same comply with any applicable laws, ordinances, building codes, or the like. Further, Tenant shall indemnify, protect, defend and hold Landlord and Landlord's agents, employees and contractors and the Building harmless for, from and against any loss, damage, liability, claims, cost or expense, including attorneys' fees and costs, incurred as a result of any defects in design, materials or workmanship resulting from Tenant's alterations, additions or improvements to the Premises. All alterations, telephone or telecommunications lines, cables, conduits and equipment and all other additions or improvements to the Premises made by Tenant shall remain the property of Tenant until termination of the Lease, at which time they shall, unless otherwise elected by Landlord by written notice to Tenant, be and become the property of Landlord. Landlord may, as a condition to approval of any such alterations, additions or improvements, require Tenant to remove any partitions, counters, railings, telephone and telecommunications lines, cables, conduits and equipment and/or other improvements installed by Tenant during the Term, and Tenant shall repair all damage resulting from such removal or, at Landlord's option, shall pay to Landlord all costs arising from such removal. All repairs, alterations, additions and restorations by Tenant hereinafter required or permitted shall be done in a good and workmanlike manner and in compliance with the plans and specifications approved by Landlord and in compliance with all applicable laws and ordinances, building codes, bylaws, regulations and orders of any federal, state, county, municipal or other public authority and of the insurers of the Premises and as-built plans and specifications

shall be provided to Landlord by Tenant upon completion of the work. If required by Landlord for projects costing in excess of $50,000, Tenant shall secure at Tenant's own cost and expense a completion and lien indemnity bond or other adequate security, including without limitation an indemnity agreement from Tenant's parent in form and substance reasonably satisfactory to Landlord. Tenant shall reimburse Landlord for Landlord's reasonable charges (including any professional fees incurred by Landlord and a reasonable administrative fee as established by Landlord from time to time) for reviewing and approving or disapproving plans and specifications for any proposed alterations, such fees not to exceed $1,500 for review and approval (unless third party engineering review is required, in which case such fees shall not exceed $3,000) or 3% of the project cost for construction management.

9.03 **Liens**. Tenant shall promptly file and/or record, as applicable, all notices of completion provided for by law, and shall pay and discharge all claims for work or labor done, supplies furnished or services rendered at the request of Tenant or at the request of Landlord on behalf of Tenant, and shall keep the Premises, the Property and the Project free and clear of all mechanics' and materialmen's liens in connection therewith. Landlord shall have the right, and shall be given ten (10) business days written notice by Tenant prior to commencement of the work, to post or keep posted on the Premises, or in the immediate vicinity thereof, any notices of non-responsibility for any construction, alteration, or repair of the Premises by Tenant. If any such lien is filed, Tenant shall cause same to be discharged of record within ten (10) days following written notice thereof, or if Tenant disputes the correctness or validity of any claim of lien, Landlord may, in its reasonable discretion, permit Tenant to post or provide security in a form and amount acceptable to Landlord to insure that title to the Project remains free from the lien claimed. If said lien is not timely discharged Landlord may, but shall not be required to, take such action or pay such amount as may be necessary to remove such lien and Tenant shall pay to Landlord as Additional Rent any such amounts expended by Landlord, together with interest thereon at the Default Rate (as defined in Section 5.03 hereof), within five (5) days after notice is received from Landlord of the amount expended by Landlord.

ARTICLE X: **USE AND COMPLIANCE WITH LAWS**

10.01 **General Use and Compliance with Laws**. Tenant shall only use the Premises for offices related to Tenant's business described in Section 1.01(e) above, and uses customarily incidental thereto and which are consistent with a Class A office project, and for no other use without the prior written the consent of Landlord. Tenant shall, at Tenant's sole cost and expense, comply with applicable requirements of municipal, county, state, federal and other applicable governmental authorities now or hereafter in force pertaining to Tenant's business operations, alterations and/or specific use of the Premises and/or the Project, and shall secure any necessary permits therefore and shall faithfully observe in the use of the Premises and the Project, applicable municipal, county, state, federal and other applicable governmental entities' requirements which are now or which may hereafter be in force; provided, however, that Tenant shall not be required to perform any Alterations as a result of such compliance obligations unless such Alterations are

required in connection with Tenant's particular use of the Premises or other Alterations already being constructed by Tenant. Tenant, in Tenant's use and occupancy of the Premises, shall not subject or permit the Premises and/or the Project to be used in any manner which would tend to damage any portion thereof, or which would increase the cost of any insurance paid by Landlord with respect thereto, including without limitation exceeding maximum legal or customary occupancy and density ratios. Tenant shall not do or permit anything to be done in or about the Premises, the Common Areas and/or the Project which will in any way obstruct or interfere with the rights of other tenants or occupants of the Common Areas and/or the Project or use or allow the Premises or any portion of the Project to be used for any improper, immoral, unlawful or objectionable purpose, nor shall Tenant cause, maintain or permit a nuisance in, on or about the Premises, the Common Areas and/or the Project. Tenant shall comply with all covenants and obligations in the CC&R's which affect the use and operation of the Premises, the Common Areas and/or the Project

10.02 **Hazardous Materials**.

(a) Defined terms.

(i) "Hazardous Materials" means, among other things, any of the following, in any amount: (a) any petroleum or petroleum derived or derivative product, asbestos in any form, urea formaldehyde and polychlorinated biphenyls and medical wastes; (b) any radioactive substance; (c) any toxic, infectious, reactive, corrosive, ignitable or flammable chemical or chemical compound; and (d) any chemicals, materials or substances, whether solid, liquid or gas, defined as or included in the definitions of "hazardous substances," "hazardous wastes," "hazardous materials," "extremely hazardous wastes," "restricted hazardous wastes," "toxic substances," "toxic pollutants," "solid waste," or words of similar import in any federal, state or local statute, law, ordinance or regulation or court decisions now existing or hereafter existing as the same may be interpreted by government offices and agencies.

(ii) "Hazardous Materials Laws" means any federal, state or local statutes, laws, ordinances or regulations or court decisions now existing or hereafter existing that control, classify, regulate, list or define Hazardous Materials or require remediation of Hazardous Materials contamination.

(b) Compliance with Hazardous Materials Laws. Tenant will not cause any Hazardous Material to be brought upon, kept, generated or used on the Project in a manner or for a purpose prohibited by or that could result in liability under any Hazardous Materials Law; provided, however, in no event shall Tenant allow any Hazardous Material to be brought upon, kept, generated or used on the Project other than those Hazardous Materials for which Tenant has received Landlord's prior written consent (other than small quantities of cleaning or other/industrial supplies as are customarily used by a tenant in the ordinary course in a general office facility). Tenant, at its sole cost and expense, will comply with (and obtain all permits required under) all Hazardous Materials Laws, groundwater wellhead protection laws, storm water

management laws, fire protection provisions, and prudent industry practice relating to the presence, storage, transportation, disposal, release or management of Hazardous Materials in, on, under or about the Project that Tenant brings upon, keeps, generates or uses on the Project (including, without limitation, but subject to this Section 10.2, immediate remediation of any Hazardous Materials in, on, under or about the Project that Tenant brings upon, keeps, generates or uses on the Project in compliance with Hazardous Materials Laws) and in no event shall Tenant allow any liens or encumbrances pertaining to Tenant's use of Hazardous Materials to attach to any portion of the Project. On or before the expiration or earlier termination of this Lease, Tenant, at its sole cost and expense, will completely remove from the Project (regardless whether any Hazardous Materials Law requires removal), in compliance with all Hazardous Materials Laws, all Hazardous Materials Tenant causes to be present in, on, under or about the Project. Tenant will not take any remedial action in response to the presence of any Hazardous Materials in on, under or about the Project, nor enter into (or commence negotiations with respect to) any settlement agreement, consent decree or other compromise with respect to any claims relating to or in any way connected with Hazardous Materials in, on, under or about the Project, without first notifying Landlord of Tenant's intention to do so and affording Landlord reasonable opportunity to investigate, appear, intervene and otherwise assert and protect Landlord's interest in the Project. Landlord shall have the right from time to time to inspect the Premises to determine if Tenant is in compliance with this Section 10.2.

(c) Notice of Actions. Tenant will notify Landlord of any of the following actions affecting Landlord, Tenant or the Project that result from or in any way relate to Tenant's use of the Project immediately after receiving notice of the same: (a) any enforcement, clean-up, removal or other governmental or regulatory action instituted, completed or threatened under any Hazardous Materials Law; (b) any claim made or threatened by any person relating to damage, contribution, liability, cost recovery, compensation, loss or injury resulting from or claimed to result from any Hazardous Material; and (c) any reports made by any person, including Tenant, to any environmental agency relating to any Hazardous Material, including any complaints, notices, warnings or asserted violations. Tenant will also deliver to Landlord, as promptly as possible and in any event within five (5) business days after Tenant first receives or sends the same, copies of all claims, reports, complaints, notices, warnings or asserted violations relating in any way to the Project or Tenant's use of the Project. Upon Landlord's written request, Tenant will promptly deliver to Landlord documentation acceptable to Landlord reflecting the legal and proper disposal of all Hazardous Materials removed or to be removed from the Premises by Tenant. All such documentation will list Tenant or its agent as a responsible party and the generator of such Hazardous Materials and will not attribute responsibility for any such Hazardous Materials to Landlord or Landlord's property manager.

(d) Disclosure and Warning Obligations. Tenant acknowledges and agrees that all reporting and warning obligations required under Hazardous Materials Laws resulting from or in any way relating to Tenant's use of the Premises or Project are Tenant's sole responsibility, regardless whether the Hazardous Materials Laws permit or require Landlord to report or warn.

(e) Indemnification. Tenant releases and will indemnify, defend (with counsel reasonably acceptable to Landlord), protect and hold harmless the Landlord and Landlord's agents, employees and contractors for, from and against any and all claims, liabilities, damages, losses, costs and expenses whatsoever arising or resulting, in whole or in part, directly or indirectly, from the presence, treatment, storage, transportation, disposal, release or management of Hazardous Materials in, on, under, upon or from the Project (including water tables and atmosphere) that Tenant brings upon, keeps, generates or uses on the Premises or the Project. Tenant's obligations under this Section include, without limitation and whether foreseeable or unforeseeable, (a) the costs of any required or necessary repair, clean-up, detoxification or decontamination of the Project resulting from Tenant's use of Hazardous Materials; (b) the costs of implementing any closure, remediation or other required action in connection therewith as stated above; (c) the value of any loss of use of the Project, and (d) consultants' fees, experts' fees and response costs. The Tenant's obligations under this Section survive the expiration or earlier termination of this Lease.

(f) Hazardous Materials Representation by Landlord. Landlord represents to Tenant that, to its actual knowledge and except as Landlord has previously disclosed to Tenant, Landlord has not caused the generation, storage or release of Hazardous Materials upon the Premises, except in accordance with Hazardous Materials Laws and prudent industry practices regarding construction of the Premises, and has no actual knowledge of the presence of any Hazardous Materials in or about the Premises.

(g) Environmental Site Assessments. In the event Landlord reasonably believes that Tenant has violated the terms of this Section 10.02, then, upon request by Landlord, Tenant will obtain and submit to Landlord an environmental site assessment from an environmental consulting company reasonably acceptable to Landlord.

10.03 **Signs**. The Tenant shall not paint, display, inscribe, place or affix any sign, picture, advertisement, notice, lettering, or direction on any part of the outside of the Building or the Project or visible from the outside of the Premises, the Building or the Project, except as first approved by Landlord. Landlord shall provide building standard identification of Tenant on the Building directory, elevator lobby and suite location, as well as building standard signage on Landlord's exterior Building sign.

ARTICLE XI: **DAMAGE AND DESTRUCTION**

11.01 **Reconstruction**. If the Building is damaged or destroyed during the Term, Landlord shall, except as hereinafter provided, diligently repair or rebuild it to substantially the condition in which it existed immediately prior to such damage or destruction. If Landlord is obligated or elects to repair or restore as herein provided, Landlord shall be obligated to make repair or restoration of only those portions of the Premises which were initially provided at

Landlord's expense or as part of the original installation by Landlord for Tenant and the repair and/or restoration of other items within the Premises shall be the obligation of the Tenant.

11.02 **Rent Abatement**. Rent due and payable hereunder shall be abated proportionately during any period in which, by reason of any such damage or destruction, there is substantial interference with the operation of Tenant's business in the Premises. Such abatement shall continue for the period commencing with such damage or destruction and ending with a substantial completion by Landlord of the work of repair or reconstruction which Landlord is obligated or undertakes to do. If it be determined that continuation of business is not practical pending reconstruction, and if Landlord does not elect to or is unable to provide alternative temporary space for continuation of such business, then Rent due and payable hereunder shall abate, until reconstruction is substantially completed or until business is totally or partially resumed, whichever is the earlier. Tenant shall not be entitled to any claim, compensation or damages for loss in the use in the whole or any part of the Premises (including loss of business) and/or any inconvenience or annoyance occasioned by such damage, repair, reconstruction or restoration.

11.03 **Excessive Damage or Destruction**. If the Building or the Premises is damaged or destroyed to the extent that it cannot within Landlord's reasonable discretion, with reasonable diligence, be fully repaired or restored by Landlord within the earlier of (i) two hundred seventy (270) days after the date of the damage or destruction, or (ii) the expiration of the Term hereof, Landlord may terminate this Lease by written notice to Tenant within thirty (30) days of the date of the damage or destruction. If Landlord does not terminate the Lease, this Lease shall remain in full force and effect and Landlord shall diligently repair and restore the damage as soon as reasonably possible. Notwithstanding the foregoing, in the event Landlord determines that the Building or Premises cannot be restored within two hundred seventy (270) days after the date of damage or destruction, Tenant shall have the right to terminate this Lease upon written notice to Landlord which notice must be given, if at all, within thirty (30) days after Tenant receives Landlord's determination of the estimated time to restore the Building or Premises, as applicable.

11.04 **Uninsured Casualty**. Notwithstanding anything contained herein to the contrary, in the event of damage to or destruction of all or any portion of the Building, which damage or destruction is not fully covered by the insurance proceeds received by Landlord under the insurance policies required under Article 7.01 hereinabove, Landlord may terminate this Lease by written notice to Tenant given within sixty (60) days after the date of notice to Landlord that said damage or destruction is not so covered. If Landlord does not elect to terminate this Lease, the Lease shall remain in full force and effect and the Building shall be repaired and rebuilt in accordance with the provisions for repair set forth in Section 11.01 hereinabove.

11.05 **Waiver**. With respect to any damage or destruction which Landlord is obligated to repair or may elect to repair under the terms of this Article XI, and to the extent permitted by law, Tenant hereby waives any rights to terminate this Lease pursuant to rights otherwise accorded by law to tenants, except as expressly otherwise provided herein.

11.06 **Mortgagee's Right**. Notwithstanding anything herein to the contrary, if the holder of any indebtedness secured by a mortgage or deed of trust covering the Property, the Building and/or the Project requires that the insurance proceeds be applied to such indebtedness, then Landlord shall have the right to terminate this Lease by delivering written notice of termination to Tenant within fifteen (15) days after such requirement is made. Upon any termination of this Lease under the provisions hereof, the parties shall be released without further obligation to the other from date possession of the Premises is surrendered to Landlord, except for items which are theretofore accrued and are then unpaid.

11.07 **Damage Near End of Term**. Notwithstanding anything to the contrary contained in this Article XI, in the event the Premises or the Building are subject to excessive damage (as defined in Section 11.03) during the last twelve (12) months of the Term or any applicable extension periods, Landlord may elect to terminate this Lease by written notice to Tenant within thirty (30) days after the date of such damage.

ARTICLE XII: **EMINENT DOMAIN**

12.01 **Eminent Domain**. In the event the whole of the Premises, Building, Project and/or Common Areas, as the case may be, and/or such part thereof as shall substantially interfere with Tenant's use and occupation thereof, shall be taken for any public or quasi-public purpose by any lawful power or authority by exercise of the right of appropriation, condemnation or eminent domain, or is sold in lieu of or to prevent such taking, then Tenant shall have the right to terminate this Lease effective as of the date possession is required to be surrendered to said authority. In the event the whole of the Premises, Building, Project and/or Common Areas, as the case may be, or such part thereof as shall substantially interfere with Landlord's use and occupation thereof, or if any access points to adjoining streets, shall be taken for any public or quasi-public purpose by any lawful power or authority by exercise of the right of appropriation, condemnation or eminent domain, or is sold in lieu of or to prevent such taking, then Landlord shall have the right to terminate this Lease effective as of the date possession is required to be surrendered to said authority. Except as provided below, Tenant shall not assert any claim against Landlord or the taking authority for any compensation because of such taking, and Landlord shall be entitled to receive the entire amount of any award without deduction for any estate or interest of Tenant in the Premises. Nothing contained in this Article 12 shall be deemed to give Landlord any interest in any separate award made to Tenant for the taking of personal property and fixtures belonging to Tenant or for Tenant's moving expenses. In the event the amount of property or the type of estate taken shall not substantially interfere with the conduct of Tenant's business, Landlord shall be entitled to the entire amount of the award without deduction for any estate or interest of Tenant, Landlord shall promptly proceed to restore the Building to substantially their same condition prior to such partial taking less the portion thereof lost in such condemnation, and the Base Rent shall be proportionately reduced by the time during which, and the portion of the Premises which, Tenant shall have been deprived of possession on account of said taking and restoration.

ARTICLE XIII: **DEFAULT**

13.01 **Events of Default**. The occurrence of any of the following events shall constitute an "Event of Default" on the part of the Tenant with or without notice from Landlord:

(a) Tenant shall fail to pay, within five (5) days following Landlord's notice that such payment is past due, any installment of Rent or other payment required pursuant to this Lease;

(b) Intentionally omitted;

(c) Tenant shall fail to comply with any Term, provision, or covenant of this Lease, other than the payment of Rent or other sums of money due hereunder, and such failure is not cured within ten (10) days after written notice thereof to Tenant (said notice being in lieu of, and not in addition to, any notice required as a prerequisite to a forcible entry and detainer or similar action for possession of the Premises); provided that if the nature of such cure is such that a longer cure period is necessary, Tenant shall only be in default if Tenant shall have failed to commence such cure within said ten (10) day period and thereafter to have diligently prosecuted such cure to completion;

(d) Tenant shall file a petition or be adjudged a debtor or bankrupt or insolvent under the United States Bankruptcy Code, as amended, or any similar law or statute of the United States or any State; or a receiver or trustee shall be appointed for all or substantially all of the assets of Tenant and such appointment or petition, if involuntary, is not dismissed within sixty (60) days of filing; or

(e) Tenant shall make an assignment for the benefit of creditors.

13.02 **Remedies**.

(a) Upon the occurrence of any Event of Default set forth in this Lease, in addition to any other remedies available to Landlord at law or in equity, Landlord shall have the immediate option to terminate this Lease and all rights of Tenant hereunder. Notwithstanding the foregoing, Landlord waives any right of distraint, distress for rent or landlord's lien with respect to Tenant's personal property that may arise at law. In the event that Landlord shall elect to so terminate this Lease, then Landlord may recover from Tenant: (i) any unpaid rent which has been earned at the time of such termination plus interest at the rates contemplated by this Lease; plus (ii) the amount by which the unpaid rent which would have been earned after termination until the time of award exceeds the amount of such rental loss that Tenant proves could have been reasonably avoided plus interest at the rates contemplated by this Lease; plus (iii) the worth at the time of award of the amount by which the unpaid rent for the balance of the Term after the time of award exceeds the amount of such rental loss that Tenant proves could be reasonably avoided; plus

(iv) the unamortized balance of the value of any free Rent, tenant improvement costs, commissions and any other monetary concessions provided to Tenant pursuant to this Lease, as amortized over the initial Term of this Lease; plus (v) any other amount necessary to compensate Landlord for all the damage proximately caused by Tenant's failure to perform Tenant's obligation under this Lease or which in the ordinary course of things would be likely to result therefrom, including, but not limited to, costs to restore the Premises to good condition, costs to remodel, renovate or otherwise prepare the Premises, or portions thereof, for a new tenant, leasing commissions, marketing expenses, reasonable attorneys' fees, and free rent, moving allowances and other types of leasing concessions. As used in Subsections 13.02(a) (iii) above, the "worth at the time of award" is computed by discounting such amount at the discount rate of the Federal Reserve Bank of San Francisco at the time of award plus one percent (1%).

(b) In the event of any such default by Tenant, Landlord shall also have the right with or without terminating this Lease, to re-enter the Premises and remove all persons and property from the Premises; such property may be removed and stored in a public warehouse or elsewhere at the cost of and for the account of the Tenant. No re-entry or taking possession of the Premises by Landlord pursuant to this Section 13.02(b) shall be construed as an acceptance of a surrender of the Premises or an election to terminate this Lease unless a written notice of such intention is given to Tenant or unless the termination thereof is decreed by a court of competent jurisdiction.

(c) In the event that Landlord shall elect to re-enter as provided above or shall take possession of the Premises pursuant to legal proceedings or pursuant to any notice provided by law, then if Landlord does not elect to terminate this Lease as provided above, Landlord may from time to time, without terminating this Lease, either recover all Rent as it becomes due or relet the Premises or any part thereof for the Term of this Lease on terms and conditions as Landlord at its sole discretion may deem advisable with the right to make alterations and repairs to the Premises.

(d) In the event that Landlord shall elect to so relet, the rents received by Landlord from such reletting shall be applied: first to the payment of any indebtedness other than Rent due hereunder from Tenant to Landlord; second to the payment of any costs of such reletting; third, to the payment of the cost of any alterations and repairs to the Premises; fourth, to the payment of Rent due and unpaid hereunder; and the residual, if any, shall be held by Landlord and applied to payment of future Rent as the same shall become due and payable hereunder. Should that portion of such rents received from such reletting during the month which is applied to the payment of Rent be less than the Rent payable during that month by Tenant hereunder, then Tenant shall pay any such deficiency to Landlord immediately upon demand therefor by Landlord. Such deficiency shall be calculated and paid monthly. Tenant shall also pay to Landlord, as soon as is certain, any of the costs and expenses incurred by Landlord in such reletting or in making such alterations and repairs not covered by the rents received from such reletting.

(e) All rights, options and remedies of Landlord contained in this Lease shall be construed and held to be cumulative, and no one of them shall be exclusive of the other, and Landlord shall have the right to pursue anyone or all of such remedies or any other remedy or relief which may be provided by law, whether or not stated in this Lease. No waiver of any default of Tenant hereunder shall be implied from any acceptance by Landlord of any Rent or other payments due hereunder or any omission by Landlord to take any action on account of such default if such default persists or is repeated, and no express waiver shall affect defaults other than as specified in said waiver. The consent or approval of Landlord to or of any act by Tenant requiring Landlord's consent or approval shall not be deemed to waive or render unnecessary Landlord's consent or approval to or of any subsequent similar acts by Tenant.

(f) In the event that during the Term of this Lease, Tenant commits more than two (2) acts or omissions of default for which default notices are given by Landlord pursuant to this Article XIII (whether or not such defaults are cured by Tenant), Landlord may, at its option, elect to terminate this Lease. Landlord's election to exercise its early termination rights shall be effective only upon written notice delivered to Tenant specifying Landlord's election to cause an early termination of this Lease. Such early termination shall be in effect when such written notice is provided to Tenant. Landlord's right of early termination shall be in addition to all other rights and remedies available to Landlord at law or in equity.

13.03 **Landlord's Default.** Landlord shall not be in default unless Landlord fails to perform its obligations under this Lease within thirty (30) days after written notice by Tenant, or if such failure is not reasonably capable of being cured within such thirty (30) day period, Landlord shall not be in default unless Landlord has failed to commence the cure and diligently pursue the cure to completion. In no event shall Tenant have the remedy to terminate this Lease except upon final adjudication of a court of competent jurisdiction authorizing such termination. In no event shall Landlord be liable to Tenant or any person claiming through or under Tenant for consequential, exemplary or punitive damages.

ARTICLE XIV: **FILING OF PETITION**

14.01 **Tenant's Bankruptcy**.

Landlord and Tenant (as either debtor or debtor-in-possession) agree that if a petition ("Petition") is filed by or against tenant under any chapter of Title 11 of the United States Code (the "Bankruptcy Code"), the following provisions shall apply:

(a) Adequate protection for Tenant's obligations accruing after filing of the Petition and before this Lease is rejected or assumed shall be provided within 15 days after filing in the form of a security deposit equal to three months' Base Rent and Additional Rent and other Lease charges, to be held by the court or an escrow agent approved by Landlord and the court.

(b) The sum of all amounts payable by Tenant to Landlord under this Lease constitutes reasonable compensation for the occupancy of the Premises by Tenant.

(c) Tenant or Trustee shall give Landlord at least 30 days written notice of any abandonment of the Premises or any proceeding relating to administrative claims. If Tenant abandons without notice, Tenant or Trustee shall stipulate to entry of an order for relief from stay to permit Landlord to reenter and relet the Premises.

(d) If Tenant failed to timely and fully perform any of its obligations under this Lease before the filing of the Petition, whether or not Landlord has given Tenant written notice of that failure and whether or not any time period for cure expired before the filing of the Petition, Tenant shall be deemed to have been in default on the date the Petition was filed for all purposes under the Bankruptcy Code.

(e) For the purposes of Section 365(b)(1) of the Bankruptcy Code, prompt cure of defaults shall mean cure within 30 days after assumption.

(f) For the purposes of Section 365(b)(1) and 365(f)(2) of the Bankruptcy Code, adequate assurance of future performance of this Lease by Tenant, Trustee or any proposed assignee will require that Tenant, Trustee or the proposed assignee deposit three months of Base Rent and Additional Rent into an escrow fund (to be held by the court or an escrow agent approved by Landlord and the court) as security for such future performance. In addition, if this Lease is to be assigned, adequate assurance of future performance by the proposed assignee shall require that: (i) the assignee have a tangible net worth not less than the net worth of Tenant as of the Commencement Date or that such assignee's performance be unconditionally guaranteed by a person or entity that has a tangible net worth not less than the net worth of Tenant as of the Commencement Date; (ii) the assignee demonstrate that it possesses a history of success in operating a business of similar size and complexity in a similar market as Tenant's business; and (iii) assignee assume in writing all of Tenant's obligations relating to the Premises or this Lease.

(g) If Tenant or Trustee intends to assume and/or assign this Lease, Tenant or Trustee shall provide Landlord with 30 days written notice of the proposed action, separate from and in addition to any notice provided to all creditors. Notice of a proposed assumption shall state the assurance of prompt cure, compensation for loss and assurance of future performance to be provided to Landlord. Notice of a proposed assignment shall state: (i) the name, address, and federal tax identification and registration numbers of the proposed assignee; (ii) all of the terms and conditions of the proposed assignment, and (iii) the assignee's proposed adequate assurance of future performance to be provided to Landlord.

(h) If Tenant is in default under this Lease when the Petition is filed, Landlord shall not be required to provide Tenant or Trustee with services or supplies under this Lease or otherwise before Tenant assumes this Lease, unless Tenant compensates Landlord for such services and supplies in advance.

ARTICLE XV; **ASSIGNMENT AND SUBLETTING**

15.01 **Prohibition**. Tenant shall not assign, mortgage, pledge or otherwise transfer or encumber this Lease, in whole or in part, nor sublet, assign, or permit occupancy by any party other than Tenant of all or any part of the Premises, without the prior written consent of Landlord, which may be withheld or conditioned by Landlord in its sole discretion. Tenant shall at the time the Tenant requests the consent of Landlord, deliver to Landlord such information in writing as Landlord may reasonably require respecting the proposed assignee or subtenant including, without limitation, the name, address, nature of business, ownership, financial responsibility and standing of such proposed assignee or subtenant and Landlord shall have not less than twenty (20) business days after receipt of all required information to elect one of the following; (a) consent to such proposed assignment, encumbrance or sublease, or (b) refuse such consent, or (c) elect to terminate this Lease, in the case of a proposed assignment, or elect to terminate the Lease with respect to the portion of the Premises proposed to be subleased, as applicable. In addition, as a condition to Landlord's consent to any assignment, sublease or encumbrance of this Lease shall be the delivery to Landlord of a true copy of the fully executed instrument of assignment, transfer or encumbrance and an agreement executed by the assignee, sublessee or other transferee in form and substance satisfactory to Landlord and expressly enforceable by Landlord, whereby the assignee assumes and agrees to be bound by the terms and provisions of this Lease and perform all the obligations of Tenant hereunder with respect to the assigned or subleased portion of the Premises. No assignment or subletting by Tenant shall relieve Tenant of any obligation under this Lease, including Tenant's obligation to pay Base Rent and Additional Rent hereunder. Any purported assignment or subletting contrary to the provisions hereof without consent shall be void. The consent by Landlord to any assignment or subletting shall not constitute a waiver of the necessity for such consent to any subsequent assignment of subletting. Tenant shall pay Landlord's reasonable processing costs and attorneys' fees incurred in reviewing any proposed Assignment or sublease, not to exceed $1500 per request.

15.02 **Excess Rental**. If pursuant to any assignment or sublease, Tenant receives rent, either initially or over the Term of the assignment or sublease, in excess of the Rent called for hereunder, or in the case of the sublease of a portion of the Premises in excess of such Rent fairly allocable to such portion, after appropriate adjustments to assure that all other payments called for hereunder are appropriately taken into account, and after deductions made for Tenant's reasonable subletting or assignment costs (including attorneys fees, brokerage commissions, and tenant improvement costs), Tenant shall pay to Landlord, as Additional Rent hereunder, fifty percent (50%) of the excess of each such payment of rent received by Tenant after its receipt.

15.03 **Scope**. The prohibition against assigning or subletting contained in this Article XV shall be construed to include a prohibition against any assignment or subletting by operation of law. If this Lease be assigned, or if the underlying beneficial interest of Tenant is transferred, or if the Premises or any part thereof be sublet or occupied by anybody other than Tenant, Landlord

may collect rent from the assignee, subtenant or occupant and apply the net amount collected to the Rent herein reserved and apportion any excess rent so collected in accordance with the terms of the immediately preceding paragraph, but no such assignment, subletting, occupancy or collection shall be deemed a waiver of this covenant, or the acceptance of the assignee, subtenant or occupant as tenant, or a release of Tenant from the further performance by Tenant of covenants on the part of Tenant herein contained. No assignment or subletting shall affect the continuing primary liability of Tenant (which, following assignment, shall be joint and several with the assignee), and Tenant shall not be released from performing any of the terms, covenants and conditions of this Lease.

15.04 **Waiver**. Notwithstanding any assignment or sublease, or any indulgences, waivers or extensions of time granted by Landlord to any assignee or sublessee or failure of Landlord to take action against any assignee or sublease, Tenant hereby agrees that Landlord may, at its option, and upon not less than ten (10) days' notice to Tenant, proceed against Tenant without having taken action against or joined such assignee or sublessee, except that Tenant shall have the benefit of any indulgences, waivers and extensions of time granted to any such assignee or sublessee.

15.05 **Change in Control**. If Tenant is a partnership or limited liability company, a withdrawal of or change in general partners or members, in one or more transfers, owning more than a fifty percent (50%) interest in the partnership, shall constitute a voluntary assignment and shall be subject to the provisions of this Article XV. If the Tenant is a corporation whose stock is not publicly traded on a national stock exchange, a transfer of fifty percent (50%) or more of the corporation's stock or assets in one or more transfers to a single party and/or its affiliates, or a change in the control of such company pursuant to a merger, consolidation, sale of assets or otherwise, shall be deemed for the purposes hereof to be an assignment of this Lease, and shall be subject to the provisions of this Article XV.

15.06 **Permitted Transfers**. Notwithstanding the above to the contrary, Tenant may assign this Lease or sublet the Premises without Landlord's consent (i) to any corporation or other entity that controls, is controlled by or is under common control with Tenant; (ii) to any corporation or other entity resulting from a merger, acquisition, consolidation or reorganization of or with Tenant; (iii) in connection with the sale of all or substantially all of the assets of Tenant (collectively, a "Permitted Transferee") provided that (a) Tenant provides evidence to Landlord in writing that such assignment or sublease complies with the criteria set forth in (i), (ii) or (iii) above, (b) such assignee, subtenant or successor-in-interest expressly assumes Tenants' obligations and liabilities; and (c) the tangible net worth, debt/tangible net worth ratio, and cash flow from operations of said assignee and Tenant after the transfer are equal to or better than that of Tenant as of the date of the proposed transfer.

ARTICLE XVI: **ESTOPPEL CERTIFICATE, ATTORNMENT AND SUBORDINATION**

16.01 **Estoppel Certificates**. Within ten (10) business days after request therefor by Landlord, or if on any sale, assignment or hypothecation by Landlord of Landlord's interest in the Property, the Project and/or the Premises, or any part thereof, an estoppel certificate shall be required from Tenant, Tenant shall deliver a certificate in the form attached hereto as Exhibit G, or in such other form as requested by Landlord, to any proposed mortgagee or purchaser, and to Landlord, certifying (if such be the case) that this Lease is in full force and effect, the date of Tenant's most recent payment of Rent, and that Tenant has no defenses or offsets outstanding, or stating those claimed by Tenant, and any other information contained in such Exhibit G or reasonably requested by Landlord or such proposed mortgagee or purchaser. Tenant's failure to deliver said statement within said period shall, at Landlord's option be an Event of Default hereunder and shall in any event be conclusive upon Tenant that: (i) this Lease is in full force and effect, without modification except as may be represented by Landlord; (ii) there are no uncured defaults in Landlord's performance and Tenant has no right to offset, counterclaim or deduction against Rent hereunder; and (iii) no more than one period's Base Rent has been paid in advance.

16.02 **Attornment**. Tenant shall, in the event any proceedings are brought for the foreclosure of, or in the event of exercise of the power of sale under, any mortgage or deed of trust made by Landlord, its successors or assigns, encumbering the Building, or any part thereof or in the event of termination of a ground lease, if any, and if so requested, attorn to the purchaser upon such foreclosure or sale or upon any grant of a deed in lieu of foreclosure and recognize such purchaser as Landlord under this Lease; provided, that such purchaser recognizes Tenant's rights under this Lease and agrees not to disturb Tenant's quiet possession of the Premises for so long as Tenant is not in default hereunder.

16.03 **Subordination**. The rights of Tenant hereunder are and shall be, at the election of any mortgagee or the beneficiary of a deed of trust encumbering the Project (or the portion thereof on which the Building is located) and/or Building, subject and subordinate to the lien of such mortgage or deed of trust, or the lien resulting from any other method of financing or refinancing, now or hereafter in force against the Project (or the portion thereof on which the Building is located) and/or the Building, and to all advances made or hereafter to be made upon the security thereof. If requested, Tenant agrees to execute such documentation as may be required by Landlord or its lender to further effect the provisions of this Article in the form attached hereto as Exhibit J or in such other form as reasonably requested by Landlord or its Lender.

16.04 **Recording**. Tenant covenants and agrees with Landlord that Tenant shall not record this Lease or any memorandum thereof without Landlord's prior written consent. Notwithstanding the provisions of Section 16.03, in the event that Landlord or its lender requires this Lease or a memorandum thereof to be recorded in priority to any mortgage, deed of trust or other encumbrance which may now or at any time hereafter affect in whole or in part the Building, the Project (or the portion thereof on which the Building is located), and whether or not any such mortgage, deed of trust or other encumbrance shall affect only the Building, the Project (or the

portion thereof on which the Building is located), or shall be a blanket mortgage, deed of trust or encumbrance affecting other premises as well, the Tenant covenants and agrees with Landlord that the Tenant shall execute promptly upon request from Landlord any certificate, priority agreement or other instrument which may from time to time be requested to give effect thereto.

ARTICLE XVII: **MISCELLANEOUS**

17.01 **Notices**. All notices required to be given hereunder shall be in writing and mailed postage prepaid by certified or registered mail, return receipt requested, or by personal delivery or nationally recognized courier service, to the appropriate address indicated in Section 1.01(b) or Section 1.01(d), as appropriate, at such street address or street addresses (but not more than three such addresses) as either Landlord or Tenant may, from time to time, respectively, designate in a written notice given to the other. Notices shall be deemed sufficiently served upon the earlier of actual receipt or the expiration of three (3) days after the date of mailing thereof.

17.02 **Successors Bound**. This Lease and each of its covenants and conditions shall be binding upon and shall inure to the benefit of the parties hereto and their respective assignees, subject to the provisions hereof. Whenever in this Lease a reference is made to Landlord, such reference shall be deemed to refer to the person in whom the interest of Landlord shall be vested, and Landlord shall have no obligation hereunder as to any claim arising after the transfer of its interest in the Building. Any successor or assignee of the Tenant who accepts an assignment of the benefit of this Lease and enters into possession or enjoyment hereunder shall thereby assume and agree to perform and be bound by the covenants and conditions thereof. Nothing herein contained shall be deemed in any manner to give a right of assignment without the prior written consent of Landlord pursuant to, or otherwise as provided in, Article XV hereof.

17.03 **Waiver**. No waiver of any default or breach of any covenant by either party hereunder shall be implied from any omission by either party to take action on account of such default if such default persists or is repeated, and no express waiver shall affect any default other than the default specified in the waiver and said waiver shall be operative only for the time and to the extent therein stated. Waivers of any covenant, term or condition contained herein by either party shall not be construed as a waiver of any subsequent breach of the same covenant, term or condition. The consent or approval by either party to or of any act by either party requiring further consent or approval shall not be deemed to waive or render unnecessary their consent or approval to or of any subsequent similar acts.

17.04 **Subdivision and Easements**. Landlord reserves the right to: (a) subdivide the Project or the Property and transfer any portion thereof (and, upon such transfer, the portion transferred shall be removed from the definition of Project and/or Property, as applicable); (b) alter the boundaries of the Project or the Property; and (c) grant easements on the Project or Property and dedicate for public use portions thereof; provided, however, that no such grant or dedication shall materially interfere with Tenant's use of the Premises. Tenant hereby consents to such

subdivision, boundary revision, and/or grant or dedication of easements and agrees from time to time, at Landlord's request, to execute, acknowledge and deliver to Landlord, in accordance with Landlord's instructions, any and all documents, instruments, maps or plats necessary to effectuate Tenant's consent thereto.

17.05 **Landlord's Reserved Rights in Common Areas**. Landlord reserves the right from time to time, provided that Tenant's use and enjoyment of the Premises is not materially and adversely affected thereby, to: (a) install, use, maintain, repair and replace pipes, ducts, conduits, wires and appurtenant meters and equipment for service to other parts of the Building above the ceiling surfaces, below the floor surfaces, within the walls and in the central core areas, and to relocate any pipes, ducts, conduit, wires and appurtenant meters in the Building which are so located or located elsewhere outside the Building; (b) make changes to the Common Areas and/or the parking facilities located thereon, including, without limitation, changes in the location, size, shape and number of driveways, entrances, parking spaces, parking areas, loading and unloading areas, ingress, egress, direction of traffic, landscaped areas and walkways; (c) close temporarily all or any portion of the Common Areas and/or the Building in order to perform any of the foregoing or any of Landlord's obligations under this Lease, so long as reasonable access to the Building remains available during normal business hours; and (d) alter, relocate or expand, and/or to add additional structures and improvements to, or remove same from, all or any portion of the Common Areas or other portions of the Project.

17.06 **Accord and Satisfaction**. No payment by Tenant or receipt by Landlord of a lesser amount than the Rent herein stipulated shall be deemed to be other than on account of the Rent, nor shall any endorsement or statement on any check or any letter accompanying any check or payment as Rent be deemed an accord and satisfaction, and Landlord may accept such check or payment without prejudice to Landlord's right to recover the balance of such Rent or pursue any other remedy provided in this Lease.

17.07 **Limitation of Landlord's Liability**. The obligations of Landlord under this Lease do not constitute personal obligations of the individual partners, directors, officers, members, employees or shareholders of Landlord or its partners, and Tenant shall look solely to the Building, and the rents and profits therefrom, for satisfaction of any liability in respect of this Lease and will not seek recourse against the individual partners, directors, officers, members, employees or shareholders of Landlord or its partners or any of their personal assets for such satisfaction.

17.08 **Survival**. The obligations and liabilities of each party which are incurred or accrue prior to the expiration of this Lease or the termination of this Lease or of Tenant's right of possession shall survive such expiration or termination, as shall all provisions by which a party is to provide defense and indemnity to the other party, all provisions waiving or limiting the liability of Landlord, and all attorneys' fees provisions.

17.09 **Attorneys' Fees**. In the event of any litigation or other proceeding, declaratory or otherwise, arising out of this Lease, including an action to collect or enforce a judgment or order

entered in any such litigation or proceeding, the prevailing party will recover its attorneys' fees from the nonprevailing party, in an amount which will be fixed by the court. If Landlord engages counsel to enforce the terms of this Lease (including, but not limited to, for the purpose of preparing a delinquency notice), Tenant will reimburse Landlord for all attorneys' fees incurred before the subject default is considered cured. Tenant will also indemnify, defend (with counsel reasonably acceptable to Landlord), protect and hold harmless Landlord, its employees, representatives, agents or successors ("Landlord Parties") from and against all claims Landlord or any of the other Landlord Parties incurs if Landlord or any of the other Landlord Parties becomes or is made a party to any claim or action (a) instituted by Tenant against, or instituted against Tenant by, any person holding any interest in the Premises by, under or through Tenant; (b) for foreclosure of any lien for labor or material furnished to or for Tenant or such other person; or (c) otherwise arising out of or resulting from any act or omission of Tenant or such other person. As used in this Lease, "attorneys' fees" means all costs, damages and expenses, including attorneys', paralegals', clerical and consultants' respective fees and charges actually expended or incurred in connection therewith, including for appeals.

17.1 0 **Captions and Article Numbers**. The captions, article, paragraph and Section numbers and table of contents appearing in this Lease are inserted only as a matter of convenience and in no way define, limit, construe or describe the scope or intent or such Sections or articles of this Lease nor in any way affect this Lease.

17.11 **Severability**. If any Term, covenant, condition or provision of this Lease, or the application thereof to any person or circumstance, shall to any extent be held by a court of competent jurisdiction to be invalid, void or unenforceable, the remainder of the terms, covenants, conditions or provisions of this Lease, or the application thereof to any person or circumstance, shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

17.12 **Applicable Law**. This Lease, and the rights and obligations of the parties hereto, shall be construed and enforced in accordance with the laws of the state in which the Building is located.

17.13 **Submission of Lease**. The submission of this document for examination and negotiation does not constitute an offer to lease, or a reservation of or option for leasing the Premises. This document shall become effective and binding only upon execution and delivery hereof by Landlord and Tenant. No act or omission of any officer, employee or agent of Landlord or Tenant shall alter, change or modify any of the provisions hereof.

17.14 **Holding Over**. This Lease shall terminate without further notice at the expiration of the Lease Term. Any holding over by Tenant without the express written consent of Landlord shall not constitute the renewal or extension of this Lease or give Tenant any rights in or to the Premises. In the event of such a holding over by Tenant without the express written consent of Landlord, the monthly Base Rent payments to be paid by Tenant shall automatically deemed to be in an amount equal to one hundred fifty percent (150%) of the then applicable Base Rent rate;

provided, however, no payment of such increased Rent by Tenant shall be deemed to extend or renew the Term of this Lease, and such Rent payments shall be fixed by Landlord only to establish the amount of liability for payment of Rent on the part of Tenant during such period of holding over. In the event Landlord shall give its express written consent to Tenant to occupy the Premises beyond the expiration of the Term, that occupancy shall be construed to be a month-to-month tenancy upon all the same terms and conditions as set forth herein unless modified by Landlord in such written consent; provided that Rent charged during any period of holding over shall be as stated above. The foregoing provisions of this Section 17.14 are in addition to and do not affect Landlord's right of re-entry or any other rights of Landlord hereunder or as otherwise provided by law. If Tenant fails to surrender the Premises on the expiration of this Lease and/or to remove all Tenant's fixture and/or personal property pursuant to Section 9.01 hereof, Tenant shall indemnify and hold Landlord harmless for, from and against all claims, damages, loss or liability, including without limitation, any claim made by any succeeding tenant resulting from such failure to surrender by Tenant and any attorneys' fees and costs incurred by Landlord with respect to any such claim.

17.15 **Rules and Regulations**. At all times during the Term, Tenant shall comply with Rules and Regulations for the Building and the Project, as set forth in Exhibit H attached hereto, together with such amendments thereto as Landlord may from time to time reasonably adopt and enforce in a non-discriminatory fashion.

17.16 **Parking**. Tenant shall be entitled to the number of unreserved vehicle parking spaces designated in Section 1.01(r) hereof for the non-exclusive use of Tenant, its employees, visitors and customers. All such parking spaces provided to Tenant hereunder shall be available for the common use of the tenants, subtenants and invitees of the Project on a non-exclusive basis, subject to any reasonable restrictions from time to time imposed by Landlord. Tenant shall not use or permit its officers, employees or invitees to use more than the number of spaces designated in Section 1.01(r) or any spaces which have been specifically reserved by Landlord to other tenants or for such other uses as have been designated by appropriate governmental entities as being restricted to certain uses. Tenant shall at all times comply and cause its officers, employees and invitees to comply with any parking Rules and Regulations as Landlord may from time to time reasonably adopt.

17.17 **No Nuisance**. Tenant shall conduct its business and control its agents, employees, invitees and visitors in such a manner as not to create any nuisance, or interfere with, annoy or disrupt any other tenant or Landlord in its operation of the Building or Project.

17.18 **Broker; Agency Disclosure**.

(a) Each of Tenant and Landlord warrant that it has had no discussions, negotiations and/or other dealings with any real estate broker or agent in connection with the negotiation of this Lease other than the Broker(s) identified in Section 1.01(r) ("Brokers"), and that it knows of no other real estate broker or agent who is or may be entitled to any commission or

finder's fee in connection with this Lease. Landlord shall pay Brokers a commission pursuant to separate agreements. Brokers shall be obligated to pay any co-brokers a portion of the commission received by such Broker. Each Tenant and Landlord agrees to indemnify the other and hold the other harmless from and against any and all claims, demands, losses, liabilities, lawsuits, judgments, costs and expenses (including without limitation, attorneys' fees and costs) with respect to any leasing commission or equivalent compensation alleged to be owing on account of such party's discussions, negotiations and/or dealings with any real estate broker or agent. This Section 17.18 is not intended to benefit any third parties and shall not be deemed to give any rights to brokers or finders. No commission(s) or finders fee(s) shall be paid to Tenant, employee(s) of Tenant or any unlicensed representative of Tenant.

17.19 **Landlord's Right to Perform**. Upon Tenant's failure to perform any obligation of Tenant hereunder after notice from Landlord pursuant to Section 13.01 above (if notice is required pursuant to Section 13.01 above), including without limitation, the Tenant's failure to pay Tenant's insurance premiums, charges of contractors who have supplied materials or labor to the Premises, etc., Landlord shall have the right to perform such obligation of Tenant on behalf of Tenant and/or to make payment on behalf of Tenant to such parties. Tenant shall reimburse Landlord the reasonable cost of Landlord's performing such obligation on Tenant's behalf, including reimbursement of any amounts that may be expended by Landlord, plus interest at the Default Rate, as Additional Rent.

17.20 **Assignment by Landlord**. In the event of a sale, conveyance, or other transfer by Landlord of the Building, the Project, or portion thereof on which the Building is located, or the Project or in the event of an assignment of this Lease by Landlord, the same shall operate to release Landlord from any further liability upon any of the covenants or conditions, express or implied, herein contained on the part of Landlord, and from any and all further liability, obligations, costs and expenses, demands, causes of action, claims or judgments arising out of this Lease from and after the effective date of said release. In such event, Tenant agrees to look solely to the successor in interest of transferor. If any Security Deposit is given by Tenant to secure performance of Tenant's covenants hereunder, Landlord may transfer such Security Deposit to any purchaser and thereupon Landlord shall be discharged from any further liability in reference thereto. Notwithstanding anything in this Lease to the contrary, however, (i) in no event shall Landlord's lender, who may have succeeded to the interest of Landlord by foreclosure, deed in lieu of foreclosure, or any other means, have any liability for any obligation of Landlord to protect, defend, indemnify or hold harmless Tenant or any other person or entity except for those matters arising from the lender's breach of the terms of this Lease after the date of such foreclosure, deed in lieu of foreclosure or any other means, and (ii) such succeeding lender shall have no liability for any representations or warranties of the Landlord contained herein except for those matters arising from the lender's breach of the terms of this Lease after the date of such foreclosure, deed in lieu of foreclosure or any other means.

17.21 **Entire Agreement**. This Lease sets forth all covenants, promises, agreements, conditions and understandings between Landlord and Tenant concerning the Building and the

Project, and there are no covenants, promises, agreements, conditions or understandings, either oral or written, between Landlord and Tenant other than as are herein set forth. No subsequent alteration, amendment, change or addition to the Lease shall be binding upon Landlord or Tenant unless reduced to writing and signed by Landlord and Tenant.

17.22 **Financial Covenants**. At Landlord's request, Tenant shall provide Landlord with current annual audited financial statements and quarterly unaudited financial statements (all such statements shall be prepared in compliance with GAAP standards) setting forth Tenant's financial condition. As an additional covenant under this Lease, Tenant agrees that it shall not, at any time during the Term of this Lease or any extensions hereof, allow, authorize or cause asset or cash distributions to shareholders and/or affiliates so as to result in Tenant's tangible net worth to be reduced below that set forth in the financial information provided to Landlord in connection with this Lease. Landlord agrees that Tenant's annual SEC filings shall be sufficient for such purposes.

17.23 **Conditions**. Intentionally omitted

17.24 **Exhibits**. Exhibits A through J are attached to this Lease after the signatures and by this reference incorporated herein.

17.25 **Time**. Time is of the essence with respect to the performance of every provision of this Lease in which time of performance is a factor.

17.26 **Prior Agreement or Amendment**. This Lease contains all of the agreements of the parties hereto with respect to any matter covered or mentioned in the Lease, and no prior agreement or understanding pertaining to any such matter shall be effective for any purpose. No provisions of this Lease may be amended or added to except by an agreement in writing signed by the parties hereto or their respective successors-in-interest.

17.27 **Independently Provided Services**.

(a) This Lease is entirely separate and distinct from and independent of any and all agreements that Tenant may at any time enter into with any third party for the provision of services, which include, but are not limited to, telecommunications, office automation, repair, maintenance services, computer, and photocopying ("Independent Services"). Tenant acknowledges that Landlord has no obligation of any type concerning the provision of Independent Services, and agrees that any cessation or interruption of Independent Services or any other act or neglect by the third party providing the Independent Services shall not constitute a default or constructive eviction by Landlord.

(b) Tenant agrees, except to the extent of the negligence of Landlord, its partners, employees, agents and/or assigns, to hold harmless and defend Landlord, its partners, employees, agents and assigns from any claim Tenant may have arising in any way out of the

provision (or lack thereof) of the Independent Services which Tenant has contracted to receive from the third parties.

17.28 **Authority to Bind Landlord**. The individuals signing this Lease on behalf of Landlord hereby represent and warrant that they are empowered and duly authorized to bind Landlord to this Lease.

17.29 **Authority to Bind Tenant**. Tenant represents and warrants that the individuals signing this Lease on behalf of Tenant are empowered and duly authorized to bind Tenant to this Lease. If Tenant is a corporation, limited liability company or limited or general partnership, Tenant represents and warrants that such person(s) is(are) duly authorized to execute and deliver this Lease on behalf of Tenant, in accordance with a duly adopted resolution or consents of all appropriate persons or entities required therefor and in accordance with the formation documents of tenant, and that this Lease is binding upon Tenant in accordance with its terms. Upon request from Landlord, Tenant shall deliver to Landlord a copy of the appropriate resolution or consent, certified by an appropriate officer, partner or manager of Tenant, authorizing or ratifying the execution of this Lease.

17.30 **No Usury**. No interest charged, or chargeable by Landlord under this Lease (including but not limited to the interest chargeable under Section 5.03 and/or any late charge, fee or other sum charged or withheld by Landlord and which is deemed to be interest) shall exceed the maximum amount of interest permitted by any applicable law. If any such interest, fee or charge would exceed such maximum, then such interest, fee or charge shall be automatically reduced to the maximum amount allowed by law and any sums already collected in excess of such maximum amount shall be refunded by Landlord in cash or by granting Tenant a credit in the applicable amount which credit shall be applied against the next Base Rent coming due.

17.31 **Interpretation**. The parties hereto specifically acknowledge and agree that the terms of this Lease have been mutually negotiated and the parties hereby specifically waive the rule or principle of contract construction which provides that any ambiguity in any term or provision of a contract will be interpreted or resolved against the party which drafted such term or provision.

17.32 **Excused Delays**. Except as otherwise set forth in this Section 17.32, neither party shall have liability to the other on account of the following acts (each of which is an "Excused Delay" and jointly all of which are "Excused Delays")" which shall include: (a) the inability to fulfill, or delay in fulfilling, any obligations under this Lease by reason of strike, lockout, other labor trouble, dispute or disturbance; (b) governmental regulation, moratorium, action, preemption or priorities or other controls; (c) shortages of fuel, supplies or labor; (d) any failure or defect in the supply, quantity or character of electricity or water furnished to the Premises by reason of any requirement, act or omission of the public utility or others furnishing the Building with electricity or water; (e) inclement weather (defined as unusual or unseasonable weather, including without limitation precipitation, temperature and wind, varying by more than 5% over the applicable daily average over the prior twenty (20) year period as reported by the National

Weather Service for the Seattle metropolitan area) which delays critical path activities of construction of the improvements, or (f) for any other reason, whether similar or dissimilar to the above, beyond a party's reasonable control including without limitation acts of God. If this Lease specifies a time period for performance of an obligation of a party, that time period shall be extended by the period of any delay in the party's performance caused by any of the events of Excused Delay described herein; provided, that notwithstanding anything to the contrary above, no payment of money (whether as Base Rent, Tenant's Share of Operating Expenses, or any other payment due under this Lease) shall be postponed, delayed or forgiven by reason of any of the foregoing events of Excused Delay.

17.33 **Patriot Act Compliance**.

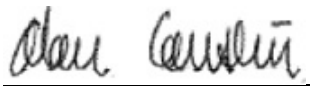
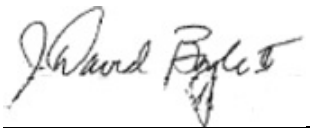
(a) Tenant represents and warrants to, and covenants with Landlord that neither Tenant nor any of its respective constituent owners or affiliates currently are, or shall be at any time during the Term hereof, in violation of any laws relating to terrorism or money laundering (collectively, the "Anti-Terrorism Laws"), including without limitation, Executive Order No. 13224 on Terrorist Financing, effective September 24, 2001, and relating to Blocking Property and Prohibiting Transactions With Persons Who Commit, Threaten to Commit, or Support Terrorism (the "Executive Order") and/or the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (Public Law 107-56) (the "USA Patriot Act").

(b) Tenant covenants with Landlord that neither Tenant nor any of its respective constituent owners or affiliates is or shall be during the Term hereof a "Prohibited Person," which is defined as follows: (i) a person or entity that is listed in the Annex to, or is otherwise subject to, the provisions of the Executive Order; (ii) a person or entity owned or controlled by, or acting for or on behalf of, any person or entity that is listed in the Annex to, or is otherwise subject to the provisions of, the Executive Order; (iii) a person or entity with whom Landlord is prohibited from dealing with or otherwise engaging in any transaction by any Anti-Terrorism Law, including without limitation the Executive Order and the USA Patriot Act; (iv) a person or entity who commits, threatens or conspires to commit or support "terrorism" as defined in Section 3(d) of the Executive Order; (v) a person or entity that is named as a "specially designated national and blocked person" on the then-most current list published by the U.S. Treasury Department Office of Foreign Assets Control at its official website, http://www.treas.gov/offices/eotffc/ofac/sdn/t11sdn.pdf, or at any replacement website or other replacement official publication of such list; and (vi) a person or entity who is affiliated with a person or entity listed in items (i) through (v), above.

(c) At any time and from time-to-time during the Term, Tenant shall deliver to Landlord, within ten (10) days after receipt of a written request therefor, a written certification or such other evidence reasonably acceptable to Landlord evidencing and confirming Tenant's compliance with this Section 17.33.

(d) Notwithstanding anything to the contrary in this Section 17.33, in the event Tenant is an entity whose stock is traded on a national stock exchange, the representations and warranties set forth herein shall not apply to the owners of Tenant's capital stock.

IN WITNESS WHEREOF, the parties have executed this Lease as of the date first above written.

"Landlord"	"Tenant"
S/I North Creek VII, LLC	AVI BioPharma, Inc.
By: 	By: 
Its: Senior Investment Manager	Its: Interim President & CEO

STATE OF WASHINGTON)
) ss.
COUNTY OF KING)

I certify that I know or have satisfactory evidence that the person appearing before me and making this acknowledgment is the person whose true signature appears on this document.

On this 20 day of October, 2010, before me personally appeared J. David Boyle II, to me known to be the Interim President & CEO of AVI BioPharma, Inc., the corporation that executed the within and foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that they were authorized to execute said instrument.

WITNESS my hand and official seal hereto affixed the day and year first above written.

Wendy M. Cort

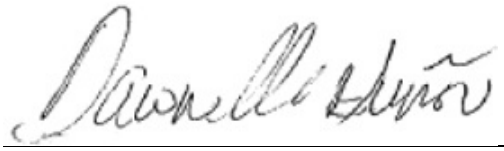
Notary Public in and for the State of Washington, County of Snohomish
residing at 3450 Monte Villa Pkwy Ste 101 Bothell WA 98021
My commission expires: 10/16/13

STATE OF WASHINGTON)
) ss.
COUNTY OF KING)

I certify that I know or have satisfactory evidence that the person appearing before me and making this acknowledgment is the person whose true signature appears on this document.

On this 22nd day of October, 2010, before me personally appeared Alan Cantlin, to me known to be the Sr. Inv. Mngr of S/I North Creek VII, LLC, the company that executed the within and foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said company, for the uses and purposes therein mentioned, and on oath stated that they were authorized to execute said instrument.

WITNESS my hand and official seal hereto affixed the day and year first above written.



Notary Public in and for the State of Washington,
residing at Bothell, WA
My commission expires: Nov 4, 2012

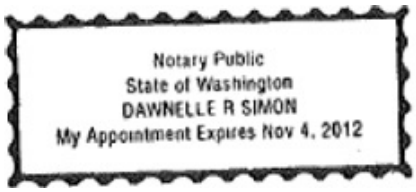


EXHIBIT A-1

LEGAL DESCRIPTION OF PROJECT

Lot 3 of City of Bothell Boundary Line Adjustment No. 0010-98, recorded under Recording No. 9809169004, Records of King County, Washington.

Lot 30, Koll Center North Creek, according to Plat recorded in Volume 32 of Plats, Pages 29 through 35 inclusive, Records of King County, Washington.

Lot 9 and 10 of City of Bothell Boundary, Line Adjustment No. 0009-98, recorded under Recording No. 9809169003, Records of King County, Washington.

Lot 12 of City of Bothell Lot Line Adjustment No. SPL0005-91, recorded under Recording No. 9207290890, Records of King County, Washington.

Tracts A, B, C, D, E and F, of Koll Center North Creek, according to Plat recorded in Volume 132 of Plats, Pages 29 through 35, inclusive, Records of King County, Washington.

Lots 16A, 17A, 18A, 19A and 20A, of City of Bothell Boundary Adjustment No. 0004-98, recorded under Recording No. 9808039016, Records of King County, Washington.

Lot 2 of City of Bothell Boundary Line Adjustment No. 0010-98, recorded under Recording No. 9809169004, Records of King County, Washington.

Lot 13, 15 and 21, of City of Bothell Boundary Line Adjustment no. 1999-003, recorded under Recording No. 20000405900006.

Lot 11 of City of Bothell Boundary Line Adjustment No. 0009-98, recorded under Recording No. 9809169003, being a portion of Lots 9 and 10 of Koll Center North Creek, according to Plat recorded in Volume 132 of Plats, Page 29 through 35, inclusive, Records of King County, Washington.

Lot 23A of City of Bothell Boundary Line Adjustment No. 1999-003, recorded under Recording No. 20000405900006, Records of King County, Washington.

Lots 27 through 29 of Koll Center North Creek, as per plat recorded in volume 132 of plats, pages 29 through 35, records of King County, Washington, and as corrected under Recording No. 8511080398, recorded November 8, 1985 of Official Records.

Situate in the City of Bothell, County of King, State of Washington.

EXHIBIT A-2

LEGAL DESCRIPTION OF PROPERTY

Lots 13, 15, 21 and 23A of City of Bothell Boundary Line Adjustment No. 1999-003, recorded under Recording No. 20000405900006, Records of King County, Washington.

EXHIBIT B-1
SITE PLAN OF PROJECT

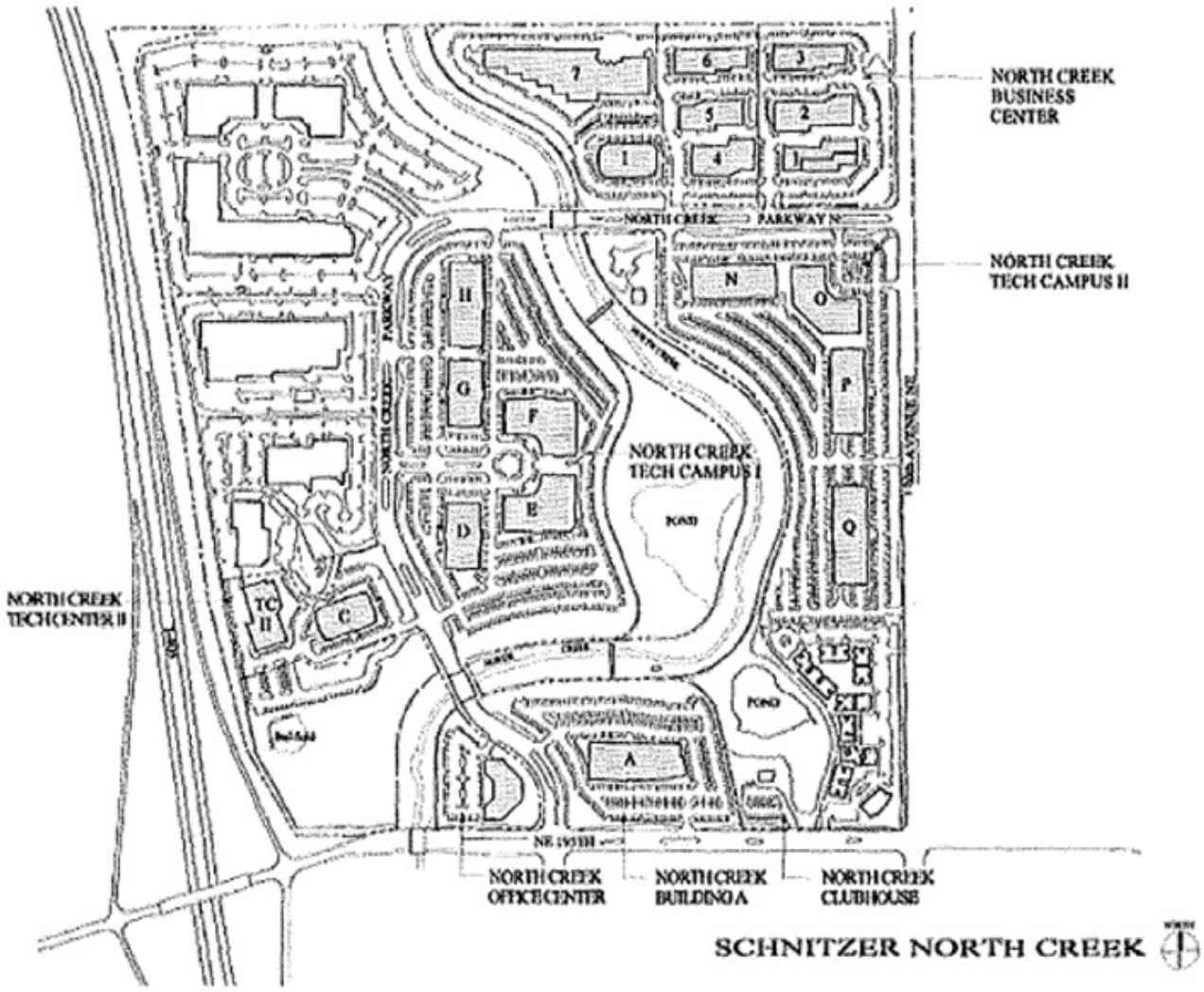


EXHIBIT B-2
SITE PLAN OF PROPERTY

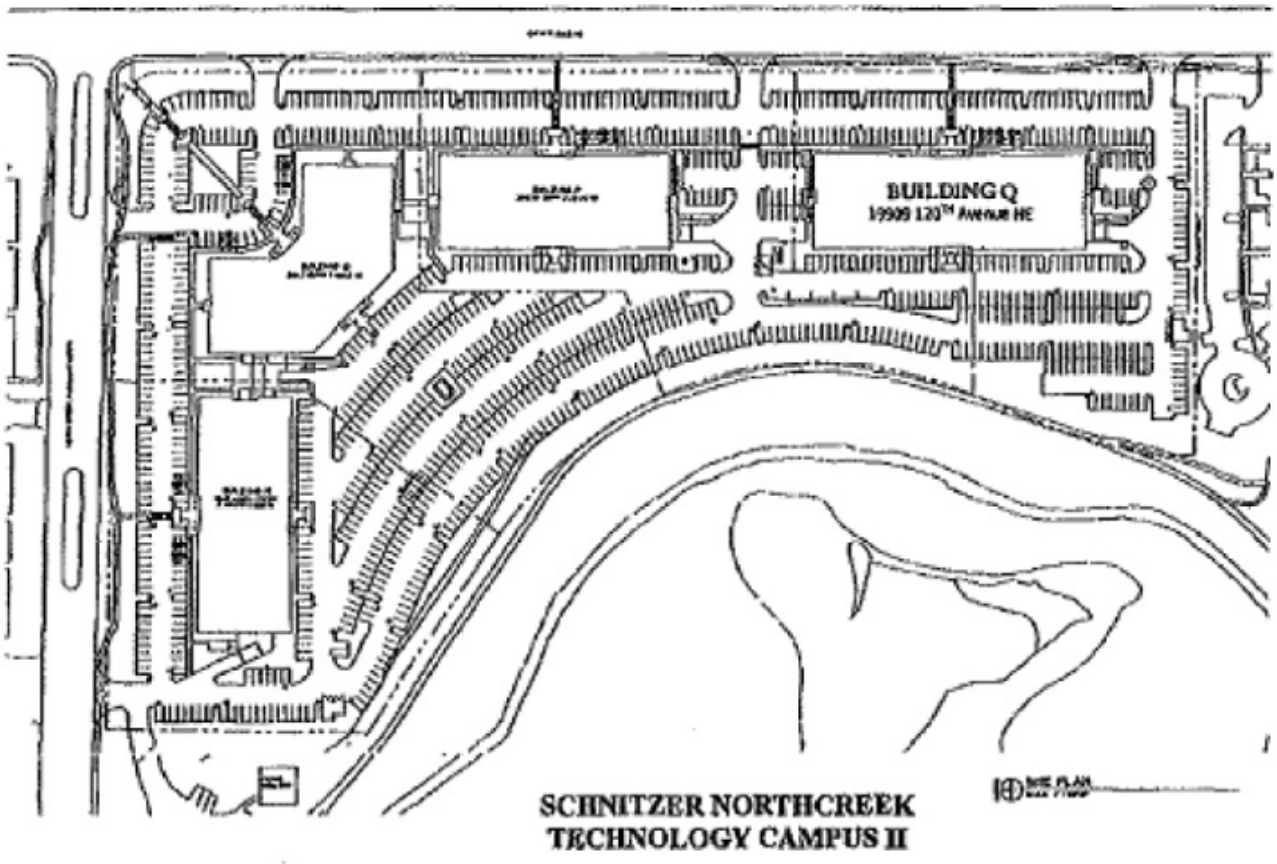


EXHIBIT C
PREMISES FLOOR PLAN(S)

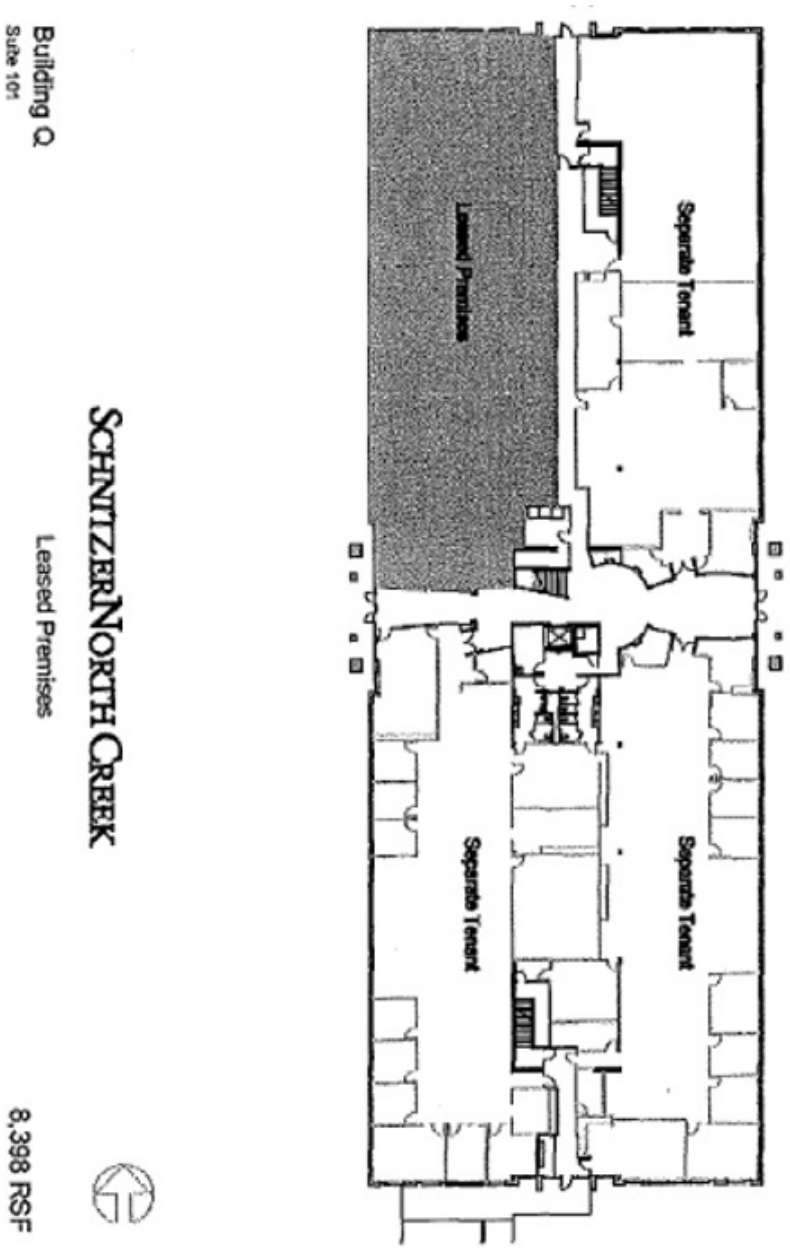


EXHIBIT D

Intentionally deleted.

EXHIBIT E

PLANS AND SPECIFICATIONS FOR THE TENANT IMPROVEMENTS

1. Landlord shall furnish and install fourteen (14) Building Standard blinds on interior office relites.

2. Landlord shall relocate six (6) electrical outlets in the kitchen.

3. No other work shall be completed by Landlord and, except for items 1 and 2 above, Tenant is leasing the space in its "as is" condition.

4. The existing condition of the Premises is shown on Page 2 of this Exhibit E.

Building Q
Suite 101
SCHNITZER NORTH CREEK
Existing Conditions
8,398 RSF

EXHIBIT F

Intentionally deleted.

EXHIBIT G

ESTOPPEL CERTIFICATE

_____

_____

_____

Re: Lease dated _____, 2__ ("Lease") by and between
_____ ("Landlord"), and
_____ ("Tenant")

Ladies and Gentlemen:

Reference is made to the above-described Lease in which the undersigned is the Tenant. We understand that you are accepting an assignment of Landlord's rights under the Lease as _____, and we hereby, as a material inducement for you to consummate the transaction, represent that:

1. There are no modifications amendments, supplements, arrangements, side letters or understandings, oral or written, of any sort, modifying, amending, altering, supplementing or changing the terms of the Lease, except for those attached to this Certificate.

2. The Lease is in full force and effect, and the Lease has been duly executed and delivered by, and is a binding obligation of, the Tenant as set forth therein.

3. The undersigned acknowledges (a) that rent on the Lease has been paid up to and including _____, 2__ (b) that monthly rent during the _____ (_____) years of the Term of the Lease is $ _____ per month, and (c) that rent has not been paid for any period after _____, 2__ and shall not, except for any Prepaid Rent as specified in the Lease, be paid for a period in excess of one (1) month in advance.

4. To the current knowledge of the undersigned, the improvements on the Building are free from defects in design, materials and workmanship and the improvements meet all governmental requirements, including, but not limited to, zoning and environmental requirements.

5. To the current knowledge of the undersigned, the Lease is not in default, and Landlord has performed the obligations required to be performed by Landlord under the terms thereof through the date hereof

6. The Lease shall be subordinate to a Deed of Trust on the Building and an assignment of Landlord's interest in the Lease given by Landlord to _____; provided, that notwithstanding such subordination, so long as Tenant is not in default under any of the terms, covenants and conditions of this Lease, neither the Lease nor any rights of Tenant thereunder shall be terminated or subject to termination by any trustee's sale, any action to enforce the security, or by any proceeding or action in foreclosure. In the event of a merger of Landlord and Tenant in any manner, the interest of Tenant and Landlord shall not merge.

7. Tenant agrees not to modify, amend, terminate or otherwise change the Lease without ten (10) days' prior written notice to you.

8. In the event of a default by Landlord under any of the terms or provisions of the Lease, Tenant shall give you adequate notice and reasonable time to cure each default.

Dated: _____, 2 __.

Very truly yours,

"Tenant"

_____

_____

By: _____

Its: _____

EXHIBIT H

RULES AND REGULATIONS

1. Sign. No sign, placard, picture, advertisement, name or notice shall be inscribed, displayed, printed or affixed on or to any part of the outside or inside of the Building, the Premises or the surrounding area without the written consent of the Landlord being first obtained. If such consent is given by Landlord, Landlord may regulate the manner of display of the sign, placard, picture, advertisement, name or notice. Landlord shall have the right to remove any sign, placard, picture, advertisement, name or notice which has not been approved by Landlord or is being displayed in a non-approved manner without notice to and at the expense of the Tenant. Tenant shall not place anything or allow anything to be placed near the glass of any window, door, partition or wall which may appear unsightly from outside of the Premises.

2. Directory. The bulletin board or directory of the Building will be provided exclusively for the display of the name and location of tenants and Landlord reserves the right to exclude any other names therefrom.

3. Access. The sidewalks, halls, passages, exits, entrances, elevators and stairways shall not be obstructed by any of the tenants or used by them for any purpose other than for ingress to and egress from their respective Premises. The halls, passages, entrances, exits, elevators, stairways, balconies and roof are not for the use of the general public and the Landlord shall in all cases retain the right to control thereof and prevent access thereto by all persons whose presence in the judgment of the Landlord shall be prejudicial to the safety, character, reputation and interests of the Building or its tenants; provided, however, that nothing herein contained shall be construed to prevent access by persons with whom the Tenant normally deals in the ordinary course of Tenant's business unless such persons are engaged in illegal activities. No Tenant and no employees or invitees of any Tenant shall go upon the roof of the Building.

4. Locks. Tenant shall not alter any lock or install any new additional locks or any bolts on any door of the Premises without the written consent of Landlord .

5. Restrooms. The toilet rooms, urinals, wash bowls and other apparatus shall not be used for any purpose other than that for which they were constructed and no foreign substance of any kind whatsoever shall be thrown therein. The expense of any breakage, stoppage or damage resulting from a violation of this rule shall be borne by the Tenant who, or whose employees, sublessees, assignees, agents, licensees, or invitees shall have caused it.

6. No Defacing Premises. Tenant shall not overload the floor of the Premises, shall not mark on or drive nails, screw or drill into the partitions, woodwork or plaster (except as may be incidental to the hanging of wall decorations), and shall not in any way deface the Premises or any part thereof.

7. Safes and Heavy Equipment. No furniture, freight or equipment of any kind shall be brought into the Building without the consent of Landlord and all moving of the same into or out of the Building shall be done at such time and in such manner as Landlord shall designate. Landlord shall have the right to prescribe the times and manner of moving all heavy equipment in and out of the Building. Landlord will not be responsible for loss of or damage to any such safe or property from any cause and all damage done to the Building by moving or maintaining any such safe or other property shall be repaired at the expense of Tenant. There shall not be used in any Premises or in the public halls of the Building, either by any tenant or others, any hand trucks except those equipped with rubber tires and side guards. Elevators must be padded while moving freight via the elevators. All such heavy equipment shall be subject to the requirements of Rule 25 below.

8. Nuisance. Tenant shall not use, keep or permit to be used or kept any food or noxious gas or substance in the Premises, or permit or suffer the Premises to be occupied or used in a manner offensive or objectionable to the Landlord or other occupants of the Building by reason of excessive noise, odors and/or vibrations, or unreasonably interfere in any way with other tenants or those having business in the Building. No animals or birds shall be brought in or kept in or about the Premises or the Building. No Tenant shall make or permit to be made any unreasonably disturbing noises or unreasonably disturb or interfere with occupants of this or neighboring Buildings or Premises, or with those having business with such occupants by the use of any musical instrument, radio, phonograph, unusual noise, or in any other way. No Tenant shall throw anything out of doors or down the passageways.

9. Permitted Use. The Premises shall not be used for manufacturing or for the storage of merchandise except as such storage may be incidental to the use of the Premises for general office purposes. No Tenant shall occupy or permit any portion of its Premises to be occupied for the manufacture or sale of liquor, narcotics, or tobacco in any form, or as a medical office, or as a barber shop or manicure shop except with prior written consent of Landlord. No Tenant shall advertise for laborers giving an address at the Premises. The Premises shall not be used for lodging or sleeping or for illegal purposes.

10. Hazardous Substances. Tenant shall not use or keep in the Premises or the Building any kerosene, gasoline or inflammable or combustible fluid or material or any Hazardous Materials as defined in Section 10.02 of the Lease or use any method of heating or air conditioning other than that supplied by Landlord.

11. Telephones. Landlord will direct electricians as to where and how telephone and telegraph wires are to be introduced. No boring or cutting for or stringing of wires will be allowed without the consent of Landlord. The location of telephones, call boxes and other office equipment affixed to the Premises shall be subject to the approval of Landlord.

12. Keys. All keys to the Building, Premises, rooms and toilet rooms shall be obtained from Landlord's office and Tenant shall not from any other source duplicate or obtain keys or have

keys made. The Tenant, upon termination of the tenancy, shall deliver to the Landlord the keys to the Building, Premises, rooms and toilet rooms which shall have been furnished and shall pay the Landlord the cost of replacing any lost key or of changing the lock or locks opened by such lost key if Landlord deems it necessary to make such change.

13. Floor Covering. No Tenant shall lay linoleum, tile, carpet or other similar floor coverings so that the same shall be affixed to the floor or the Premises in any manner except as approved by the Landlord. The expense of repairing any damage resulting from a violation of this rule or removal of any floor covering shall be borne by the Tenant by whom, or by whose contractors, agents, sublessees, licensees, employees or invitees, the floor covering shall have been laid.

14. Building Closure. During all hours on Saturdays, Sundays, legal holidays and such other times as reasonably determined by Landlord from time to time, access to the Building or to the halls, corridors, or stairways in the Building, or to the Premises may be refused unless the person seeking access is known to any person or employee of the Building in charge and has a pass or is properly identified. The Landlord shall in no case be liable for damages for any error with regard to the admission to or exclusion from the Building of any person. In case of invasion, mob, riot, public excitement, or other commotion, the Landlord reserves the right to prevent access to the Building during the continuance of the same, by closing the doors or otherwise, for the safety of the tenants and protection of the Building and property located therein. Anything to the foregoing notwithstanding, Landlord shall have no duty to provide security protection for the Building at any time or to monitor access thereto.

15. Premises Closure. Tenant shall see that the doors of the Premises are closed and securely locked before leaving the Building and that all water faucets, water apparatus and electricity are entirely shut off before Tenant or Tenant's employees leave the Building. Tenant shall be responsible for any damage to the Building or other tenants caused by a failure to comply with this rule. Tenant shall at all times keep the perimeter doors and windows to the Premises closed.

16. Disorderly Conduct. Landlord reserves the right to exclude or expel from the Building any person who, in the judgment of Landlord, is intoxicated or under the influence of liquor or drugs, or who shall in any manner do any act in violation of any of the rules and regulations of the Building.

17. Tenant Requests. Any requests of Tenant will be considered only upon application at the office of the Landlord. Employees of Landlord shall not be requested to perform any work or do anything outside of their regular duties unless under special instructions from the Landlord.

18. Vending Machines. No vending machine shall be installed, maintained or operated upon the Premises without the written consent of the Landlord.

19. Building Name and Address. Landlord shall have the right, exercisable without notice and without liability to Tenant, to change the name and the street address of the Building of which the Premises are a part.

20. Emergency Regulations. Tenant agrees that it shall comply with all emergency regulations that may be issued from time to time by Landlord and Tenant also shall provide Landlord with the names of a designated responsible employee to represent Tenant in all matters pertaining to emergency regulations.

21. Tenant Advertising. Without the written consent of Landlord, Tenant shall not use the name of the Building in connection with or in promotion or advertising the business of Tenant except as Tenant's address.

22. Emergency Information. Tenant must provide Landlord with names and telephone numbers to contact in case of emergency. Tenant must fill out a tenant emergency information sheet and return it to Landlord's office within three (3) days of occupancy.

23. Installation of Burglar and Informational Services. If Tenant requires telegraphic, telephonic, burglar alarm or similar services, it shall first obtain, and comply with, Landlord's instructions in their installation.

24. Deliveries. The Building freight elevator shall be available for use by all tenants in the Building, subject to such reasonable scheduling as Landlord, in its discretion, shall deem appropriate. No equipment, materials, furniture, packages, supplies, merchandise or other property will be received in the Building or carried in the elevators except between such hours and in such elevators as may be designated by Landlord. Tenant's initial move in and subsequent deliveries of bulky items, such as furniture, safes and similar items shall, unless otherwise agreed in writing by Landlord, be made during the hours of 6:00 p.m. to 6:00 a.m. or on Saturday or Sunday. Deliveries shall be limited as set forth in the Lease. No deliveries shall be made which impede or interfere with other tenants or the operation of the Building.

25. Floor Loads. Tenant shall not place a load upon any floor of the Premises which exceeds the load per square foot, which such floor was designed to carry and which is allowed by law. Landlord shall have the right to prescribe the weight, size and position of all equipment, materials, furniture or other property brought into the Building. Heavy objects shall, if considered necessary by Landlord, stand on such platforms as determined by Landlord to be necessary to properly distribute the weight, which platforms shall be provided at Tenant's expense. Business machines and mechanical equipment belonging to Tenant, which cause noise or vibration that may be transmitted to the structure of the Building or to any space therein to such a degree as to be objectionable to Landlord or to any tenants in the Building, shall be placed and maintained by Tenant, at Tenant's expense, on vibration eliminators or other devices sufficient to eliminate noise or vibration. The persons employed to move such equipment in or out of the Building must be acceptable to Landlord. Landlord will not be responsible for loss of, or damage to, any such

equipment or other property from any cause, and all damage done to the Building by maintaining or moving such equipment or other property shall be repaired at the expense of Tenant

26. Energy Conservation. Tenant shall not waste electricity, water or air conditioning and agrees to cooperate fully with Landlord to assure the most effective operation of the Building's heating and air-conditioning and to comply with any governmental energy-saving rules, laws or regulations of which Tenant has actual notice, and shall refrain from attempting to adjust controls. Tenant shall keep corridor doors closed.

27. No Antennas. Tenant shall not install any radio or television antenna, loudspeaker or other devices on the roof or exterior walls of the Building. Tenant shall not interfere with radio or television broadcasting or reception from or in the Building or elsewhere.

28. No Soliciting. Canvassing, soliciting and distribution of handbills or any other written material, and peddling in the Building are prohibited, and Tenant shall cooperate to prevent such activities.

29. Prohibited Uses. The Premises shall not be used for any improper, immoral or objectionable purpose. No cooking shall be done or permitted on the Premises without Landlord's consent, except that use by Tenant of Underwriters Laboratory approved equipment for brewing coffee, tea, hot chocolate and similar beverages or use of microwave ovens for employee use shall be permitted, provided that such equipment and use is in accordance with all applicable federal, state, county and city laws, codes, ordinances, rules and regulations.

30. Enforcement of Rules. Landlord may waive any one or more of these Rules and Regulations for the benefit of Tenant or any other Tenant but no such waiver by Landlord shall be construed as a waiver of such Rules and Regulations in favor of Tenant, nor prevent Landlord from thereafter enforcing any such Rules and Regulations against any or all of the tenants of the Building.

31. Lease. These Rules and Regulations are in addition to, and are made a part of, the terms, covenants, agreements and conditions of Tenants Lease of its Premises in the Building.

32. Additional Rules. Landlord reserves the right to make such other Rules and Regulations or amendments hereto as, in its reasonable judgment, may from time to time be needed for safety and security, for care and cleanliness of the Building and for the preservation of good order therein. Tenant agrees to abide by all such Rules and Regulations hereinabove stated and any additional rules and regulations which are adopted.

33. Observance of Rules. Tenant shall be responsible for the observance of all of the foregoing rules by Tenant's employees, agents, licensees, sublessees, assigns, and invitees.

34. Maintenance of Fire Extinguishers. Tenant shall maintain in the Premises during the entire Lease Term, not less than the minimum number of fire extinguishers required by law and Tenant shall inspect all such fire extinguishers not less frequently than once each month to assure that the same are fully charged and in good operational condition. Annually the Tenant shall have all fire extinguishers inspected by an authorized and qualified inspector who shall certify that each such fire extinguisher complies with all applicable requirements of the NFPA. If any such fire extinguishers fail to obtain such certification, then within three (3) business days after such failure such fire extinguishers shall be replaced, or repaired, and reinspected and a certification shall be issued certifying that all such fire extinguishers comply with all applicable requirements of the NFPA.

EXHIBIT I

Intentionally omitted

EXHIBIT J
FORM OF SNDA

RECORDING REQUESTED BY AND
WHEN RECORDED RETURN TO:

Bank of America, N.A.
RE Bank – Loan Administration
Attn: Barbara Johnson
Mail Code: WA1-501-37-54
800 Fifth Avenue, 37th Floor
Seattle, WA 98104

SUBORDINATION
NONDISTURBANCE
AND ATTORNMENT AGREEMENT

NOTICE: THIS SUBORDINATION, NONDISTURBANCE AND ATTORNMENT AGREEMENT RESULTS IN YOUR LEASEHOLD ESTATE IN THE PROPERTY BECOMING SUBJECT TO AND OF LOWER PRIORITY THAN THE LIEN OF SOME OTHER OR LATER SECURITY INSTRUMENT.

DEFINED TERMS

Execution Date:

Beneficiary & Address:
Bank of America, N.A.
RE Bank – Loan Administration
Attn: Barbara Johnson
Mail Code: WAl-501-37-54
800 Fifth Avenue, 37th Floor
Seattle, WA 98104

Tenant & Address:

Landlord & Address:
S/I North Creek VII, LLC
c/o Schnitzer West
818 Stewart Street, Suite 700
Seattle, Washington 98101
Telephone: (425) 452-3700
Facsimile: (425) 454-1505

Loan: A first mortgage loan in the original principal amount of $ _____ from Beneficiary to Landlord.

Note: Promissory Note executed by Landlord in favor of Beneficiary in the amount of the Loan dated as of _____.

Deed of Trust: Deed of Trust, Assignment, Security Agreement and Fixture Filing dated as of _____ executed by Landlord, to PRLAP, Inc. as Trustee, for the benefit of Beneficiary securing repayment of the Note to be recorded in the records of the County in which the Property is located.

Lease and Lease Date: The lease entered into by Landlord and Tenant dated as of _____, 2010, covering the Premises.

Property:

Schnitzer North Creek Tech Campus II
Bothell, Washington 98011

The Property is more particularly described on Exhibit A.

THIS SUBORDINATION, NONDISTURBANCE AND ATTORNMENT AGREEMENT
(the "Agreement") is made by and among Tenant, Landlord, and Beneficiary and affects the Property described in Exhibit A. Certain terms used in this Agreement are defined in the Defined Terms. This Agreement is entered into as of the Execution Date with reference to the following facts:

A. Landlord and Tenant have entered into the Lease covering certain space in the improvements located in and upon the Property (the "Premises").

B. Beneficiary has made or is making the Loan to Landlord evidenced by the Note. The Note is secured, among other documents, by the Deed of Trust.

C. Landlord, Tenant and Beneficiary all wish to subordinate the Lease to the lien of the Deed of Trust.

D. Tenant has requested that Beneficiary agree not to disturb Tenant's rights in the Premises pursuant to the Lease in the event Beneficiary forecloses the Deed of Trust, or acquires the Property pursuant to the trustee's power of sale contained in the Deed of Trust or receives a transfer of the Property by a conveyance in lieu of foreclosure of the Property (collectively, a "Foreclosure Sale"), subject to the terms and conditions more particularly set forth in this Agreement.

NOW THEREFORE, in consideration of the premises and the mutual covenants contained herein, the parties agree as follows:

1. Subordination. Subject to the terms of this Agreement, the Lease and the leasehold estate created by the Lease and all of Tenant's rights under the Lease are and shall remain subordinate to the Deed of Trust and the lien of the Deed of Trust, to all rights of Beneficiary under the Deed of Trust and to all renewals, amendments, modifications and extensions of the Deed of Trust.

2. Acknowledgments by Tenant. Tenant agrees that: (a) Tenant has notice that the Lease and the rent and all other sums due under the Lease have been or are to be assigned to Beneficiary as security for the Loan. In the event that Beneficiary notifies Tenant of a default under the Deed of Trust and requests Tenant to pay its rent and all other sums due under the Lease to Beneficiary, Tenant shall pay such sums directly to Beneficiary or as Beneficiary may otherwise request and such amounts shall be credited to Tenant's payment obligations under the Lease. (b) Tenant shall send a copy of any notice of default under the Lease to Beneficiary at the same time Tenant sends such notice to Landlord. (c) This Agreement satisfies any condition or requirement in the Lease relating to the granting of a nondisturbance agreement, with respect to the Loan covered by this Agreement.

3. Foreclosure and Sale. In the event of a Foreclosure Sale,

(a) So long as Tenant complies with this Agreement and is not in default under any of the provisions of the Lease beyond any applicable notice and cure period, (a) the Lease shall continue in full force and effect as a direct lease between Beneficiary and Tenant, and Beneficiary will not disturb the possession of Tenant, and (b) Tenant shall not be named or joined as a party in any suit, action or proceeding for the foreclosure of the Beneficiary or the enforcement of any rights under the Deed of Trust (unless the Tenant is a necessary party under applicable law, and then only for such purposes and not for the purpose of a terminating of the Lease, subject to this Agreement. To the extent that the Lease is extinguished as a result of a Foreclosure Sale, a new lease

shall automatically go into effect upon the same provisions as contained in the Lease between Landlord and Tenant, except as set forth in this Agreement, for the unexpired term of the Lease. Tenant agrees to attorn to and accept Beneficiary as landlord under the Lease and to be bound by and perform all of the obligations imposed by the Lease, or, as the case may be, under the new lease, in the event that the Lease is extinguished by a Foreclosure Sale. Upon Beneficiary's acquisition of title to the Property, Beneficiary will perform all of the obligations imposed on the Landlord by the Lease except as set forth in this Agreement; provided, however, that Beneficiary shall not be; (i) liable for any act or omission of a prior landlord (including Landlord), except to the extent that such act or omission is of a continuing nature, and subject to the terms of Section 6 below; or (ii) subject to any offsets or defenses that Tenant might have against any prior landlord (including Landlord), except to the extent that such defense or offsets relates to a default of a continuing nature; or (iii) bound by any rent or additional rent which Tenant might have paid in advance to any prior landlord (including Landlord) for a period in excess of one month or by any security deposit, cleaning deposit or other sum that Tenant may have paid in advance to any prior landlord (including Landlord), except to the extent that either such prepayment is required under the terms of the Lease (e.g., taxes and operating expenses) or such sums are actually delivered to and received by Beneficiary; or (iv) bound by any amendment, modification, assignment or termination of the Lease made without the written consent of Beneficiary.

(b) Upon the written request of Beneficiary after a Foreclosure Sale, the parties shall execute a lease of the Premises upon the same provisions as contained in the Lease between Landlord and Tenant, except as set forth in this Agreement, for the unexpired term of the Lease.

(c) Notwithstanding any provisions of the Lease to the contrary, from and after the date that Beneficiary acquires title to the Property as a result of a Foreclosure Sale (i) Beneficiary shall not be required to grant nondisturbance to any subtenants of Tenant except Permitted Transferees and (ii) other than determination of fair market value, no disputes under the Lease shall be subject to arbitration unless Beneficiary and Tenant agree to submit a particular dispute to arbitration.

4. Subordination and Release of Purchase Options. Tenant represents that it has no right or option of any nature to purchase the Property or any portion of the Property or any interest in the Borrower. To the extent Tenant has or acquires any such right or option, these rights or options are acknowledged to be subject and subordinate to the Deed of Trust and are waived and released as to Beneficiary and any third party purchaser at the Foreclosure Sale (a "Foreclosure Purchaser").

5. Acknowledgment by Landlord. In the event of a default under the Deed of Trust, at the election of Beneficiary, Tenant shall and is directed to pay all rent and all other sums due under the Lease to Beneficiary. Tenant is hereby authorized to make such payment to

Beneficiary upon receipt of such notice without any duty of inquiry. Landlord acknowledges and agrees that Tenant shall have no liability for any payments made directly to Lender pursuant to the terms of this Agreement and any such amounts paid to Beneficiary shall be credited to Tenant's obligations under the Lease.

6. Construction of Improvements. Beneficiary shall not have any obligation or incur any liability with respect to the completion of the tenant improvements for the Premises; provided, however, that in the event that (a) any tenant improvements to be completed by Landlord under the Lease have not been completed, or (b) any tenant improvement allowance has not been paid at the time Beneficiary becomes Landlord under the Lease, and Beneficiary fails to assume the Landlord's obligation under the Lease to complete such improvements and/or pay such allowance to Tenant on or before ten (10) days after written notice from Tenant, then Tenant shall be entitled to terminate the Lease by giving written notice of termination to Beneficiary.

7. Notice. All notices under this Agreement shall be deemed to have been properly given if delivered by overnight courier service or mailed by United States certified mail, with return receipt requested, postage prepaid to the party receiving the notice at its address set forth in the Defined Terms (or at such other address as shall be given in writing by such party to the other parties) and shall be deemed complete upon receipt or refusal of delivery.

8. Miscellaneous. Beneficiary shall not be subject to any provision of the Lease that is inconsistent with this Agreement; provided, however, that notwithstanding anything to the contrary contained in this Agreement, the terms of the Lease shall continue to govern with respect to the disposition of any insurance proceeds or eminent domain awards, and any obligations of Landlord to restore the real estate of which the Premises are a part shall be limited, insofar as they apply to Beneficiary, to insurance proceeds or eminent domain awards received by Beneficiary after the deduction of all costs and expenses incurred in obtaining such proceeds or awards and any such obligation to restore shall be conditioned on such net proceeds or awards being sufficient to pay in full for such restoration. Nothing contained in this Agreement shall be construed to derogate from or in any way impair or affect the lien or the provisions of the Deed of Trust. This Agreement shall be governed by and construed in accordance with the laws of the State of in which the Property is located.

9. Liability and Successors and Assigns. In the event that Beneficiary shall acquire title to the Premises or the Property, Beneficiary shall have no obligation, nor incur any liability, beyond Beneficiary's then equity interest, if any, in the Property, and Tenant shall look exclusively to such equity interest of Beneficiary, if any, and all rents and proceeds from the property, for the payment and discharge of any obligations imposed upon Beneficiary. This Agreement shall run with the land and shall inure to the benefit of the parties and, their respective successors and permitted assigns including a Foreclosure Purchaser. If a Foreclosure Purchaser acquires the Property or if Beneficiary assigns or transfers its interest in the Note and Deed of Trust or the Property, all obligations and liabilities of Beneficiary under this Agreement shall terminate and be the responsibility of the Foreclosure Purchaser or other party to whom Beneficiary's interest

is assigned or transferred. The interest of Tenant under this Agreement may not be assigned or transferred except in connection with a transfer that is permitted under the Lease of its interest in the Lease or an assignment of its interest in the Lease to which Landlord and Beneficiary have consented.

IN WITNESS WHEREOF, the parties have executed this Subordination, Nondisturbance and Attornment Agreement as of the Execution Date.

IT IS RECOMMENDED THAT THE PARTIES CONSULT WITH THEIR ATTORNEYS PRIOR TO THE EXECUTION OF THIS SUBORDINATION, NONDISTURBANCE AND ATTORNMENT AGREEMENT.

BENEFICIARY: Bank of America, N.A.

By _____

Its _____

TENANT: _____

By _____

Its _____

LANDLORD: S/I North Creek VII, LLC

By _____

Its _____

STATE OF WASHINGTON)
) ss.
COUNTY OF KING)

I certify that I know or have satisfactory evidence that the person appearing before me and making this acknowledgment is the person whose true signature appears on this document.

On this _____ day of _____, 2010, before me personally appeared _____, to me known to be the _____ of Bank of America, N.A., the bank that executed the within and foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said bank, for the uses and purposes therein mentioned, and on oath stated that (s)he was authorized to execute said instrument.

WITNESS my hand and official seal hereto affixed the day and year first above written.

_____
Notary Public in and for the State of Washington,
residing at _____
My commission expires: _____

_____
[Type or Print Notary Name]

(Use This Space for Notarial Seal Stamp)

STATE OF _____)
) ss.
COUNTY OF _____)

I certify that I know or have satisfactory evidence that the person appearing before me and making this acknowledgment is the person whose true signature appears on this document

On this _____ day of _____, 2010, before me personally appeared _____, to me known to be the _____ of _____, the company that executed the within and foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said company, for the uses and purposes therein mentioned, and on oath stated that (s)he was authorized to execute said instrument

WITNESS my hand and official seal hereto affixed the day and year first above written.

_____
Notary Public in and for the State of _____,
residing at _____
My commission expires: _____

_____
[Type or Print Notary Name]

(Use This Space for Notarial Seal Stamp)

STATE OF WASHINGTON)
) ss.
COUNTY OF KING)

I certify that I know or have satisfactory evidence that the person appearing before me and making this acknowledgment is the person whose true signature appears on this document.

On this _____ day of _____, 2010, before me personally appeared _____, to me known to be the _____ of S/I North Creek VII, LLC, the company that executed the within and foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said company, for the uses and purposes therein mentioned, and on oath stated that (s)he was authorized to execute said instrument.

WITNESS my hand and official seal hereto affixed the day and year first above written.

_____
Notary Public in and for the State of Washington,
residing at _____
My commission expires: _____

_____
[Type or Print Notary Name]

(Use This Space for Notarial Seal Stamp)

EXHIBIT 23.1

Consent of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders
AVI BioPharma, Inc.

We consent to the incorporation by reference in the registration statements (Nos. 333-160922, 333-150021, 333-133211, 333-86778, 333-105412, 333-68502, 333-45888, 333-138299, 333-93135, and 333-86039) on Form S-3 and (Nos. 333-101826, 333-49996, 333-49994, and 333-34047) on Form S-8 of AVI BioPharma, Inc. (a developmental stage company) of our report dated March 14, 2011 with respect to the balance sheets of AVI BioPharma, Inc. as of December 31, 2010 and 2009 and the related statements of operations, shareholders' equity (deficit) and comprehensive income (loss), and cash flows for each of the years in the three-year period ended December 31, 2010 and the information included in the cumulative from inception presentations for the period January 1, 2002 to December 31, 2010 (not separately presented), and the effectiveness of internal control over financial reporting as of December 31, 2010, which reports appear in the December 31, 2010 annual report on Form 10-K of AVI BioPharma, Inc.

/s/ KPMG LLP

Seattle, Washington
March 14, 2011

EXHIBIT 31.1

CERTIFICATION

I, Christopher Garabedian, certify that:

1. I have reviewed this annual report on Form 10-K of AVI BioPharma, Inc., (the "Registrant");

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report;

4. The Registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the Registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and

5. The Registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of the Registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

March 14, 2011

/s/ Christopher Garabedian

Christopher Garabedian
President and Chief Executive Officer

EXHIBIT 31.2

CERTIFICATION

I, J. David Boyle II, certify that:

1. I have reviewed this annual report on Form 10-K of AVI BioPharma, Inc., (the "Registrant");

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report;

4. The Registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the Registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and

5. The Registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of the Registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

March 14, 2011

/s/ J. David Boyle II

J. David Boyle II,
Senior Vice President and Chief Financial Officer

EXHIBIT 32.1

CERTIFICATION PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002
(18 U.S.C. SECTION 1350)

I, Christopher Garabedian, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report of AVI BioPharma, Inc. on Form 10-K for the fiscal year ended December 31, 2010, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Annual Report on Form 10-K fairly presents, in all material respects, the financial condition and results of operations of AVI BioPharma, Inc.

March 14, 2011

/s/ Christopher Garabedian

Christopher Garabedian,
President and Chief Executive Officer
(Principal Executive Officer)

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to AVI BioPharma, Inc. and will be retained by AVI BioPharma, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

This certification accompanies this Report on Form 10-K pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by such Act, be deemed filed by AVI BioPharma, Inc. for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Such certification will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act, except to the extent that AVI BioPharma, Inc. specifically incorporates it by reference.

EXHIBIT 32.2

CERTIFICATION PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002
(18 U.S.C. SECTION 1350)

I, J. David Boyle II, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report of AVI BioPharma, Inc. on Form 10-K for the fiscal year ended December 31, 2010, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Annual Report on Form 10-K fairly presents, in all material respects, the financial condition and results of operations of AVI BioPharma, Inc.

March 14, 2011

/s/ J. David Boyle II

J. David Boyle II,
Senior Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer)

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to AVI BioPharma, Inc. and will be retained by AVI BioPharma, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

This certification accompanies this Report on Form 10-K pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by such Act, be deemed filed by AVI BioPharma, Inc. for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Such certification will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act, except to the extent that AVI BioPharma, Inc. specifically incorporates it by reference.