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For Immediate Release

PORTLAND, OR — March 10, 2009 — AVI BioPharma, Inc. (NASDAQ: AVII), a developer of RNA-based drugs, today reported financial results for the fourth quarter and 12 months ending December 31, 2008.

Revenues for the fourth quarter of 2008 were \$5.5 million, up from \$5.2 million in the fourth quarter of 2007, reflecting increases in research contract revenues of \$0.3 million. Revenues for the year ended December 31, 2008 were \$21.3 million, up from \$11.0 million for the 2007 year, primarily reflecting increases in research contract revenues of \$10.3 million. Revenues in 2008 are derived primarily from AVI's government funded research contracts.

The net loss for the fourth quarter of 2008 was \$1.1 million, or \$0.01 per share, compared with a net loss for the fourth quarter of 2007 of \$4.1 million, or \$0.07 per share. For the year ended December 31, 2008, AVI reported a net loss of \$23.9 million, or \$0.34 per share, compared with a net loss for 2007 of \$27.2 million, or \$0.50 per share.

Research and development (R&D) expenses for the fourth quarter of 2008 decreased to \$5.4 million from \$9.4 million during the fourth quarter of 2007. The decrease in R&D expenses was due primarily to decreases in manufacturing contracting costs. R&D expenses for the 2008 year decreased to \$29.0 million from \$34.8 million in the prior year. This decrease was due primarily to decreases in manufacturing contracting costs and a decrease in government research contract expenses partially offset by increases in net clinical expenses, compensation costs and contracted external staff costs. During 2008 the Company completed a stock acquisition of Ercole Biotechnology, Inc. ("Ercole"), resulting in additional expenses of \$9.9 million relating to acquired in-process R&D.

General and administrative (G&A) expenses for the fourth quarter of 2008 increased to \$2.9 million from \$1.5 million for the fourth quarter of 2007. The increase in G&A expenses was due primarily to an increase in compensation costs including severance for a former Company Officer who resigned during the quarter and an \$800,000 impairment charge for a property held by the Company. G&A expenses for the year ended December 31, 2008 increased to \$9.8 million from \$9.3 million in the prior year. The increase in G&A expenses for the year was due primarily to an \$800,000 impairment charge offset by a decrease in compensation cost. This decrease in compensation reflects year 2007 expenses related to the Separation and Release Agreement with the Company's former Chief Executive Officer.

AVI had cash, cash equivalents and short-term securities of \$11.5 million as of December 31, 2008, a decrease of \$13.6 million from December 31, 2007. This decrease was due primarily to \$12.3 million used in operations and \$1.2 million used for purchases of property and equipment and patent-related costs. Cash used in operating activities for the year ending December 31 is \$12.3 million in 2008 or about half of the \$24.7 million used last year. This positive trend is primarily due to increased revenues and tighter fiscal control on expense. In January 2009 AVI raised \$16.5 million in gross proceeds following the sale of 14.2 million shares of common stock at a price per share of \$1.16 pursuant to a registered direct offering to a select group of institutional investors. Eastbourne Capital Management, LLC was the lead investor in the financing.

"We have significantly advanced our lead RNA-based drug development programs, all of which are in, or approved for the clinic in 2009," said Leslie Hudson, Ph.D., President and Chief Executive Officer of AVI BioPharma. "AVI has made a full transition from an antisense pioneer to one of the leading companies in RNA-based therapeutics through solid advances in its product pipeline, leadership team and financial position. We are well positioned to continue delivering on our milestones in 2009."

2008 and Recent Corporate Highlights:

New Management Team:

- Leslie Hudson, Ph.D., appointed President and Chief Executive Officer, bringing more than 20 years of leadership experience in the biopharmaceutical and pharmaceutical industries. Dr. Hudson was CEO of two public companies and held senior R&D and commercial positions in Pharmacia and Glaxo.
- Ryszard 'Richard' Kole, Ph.D joined AVI as Senior Vice President of Discovery Research. Dr. Kole has a long and

successful track record of research in directed alternative splicing as a Full Professor at the University of N. Carolina and was a founder of Ercole Biotech, Inc.

- J. David Boyle II appointed Senior Vice President of Finance and CFO of AVI having previously served as Vice President of Finance and CFO of XOMA Ltd., after a career of 25 years in U.S. and international companies.
- Shirley J. Leow joined AVI as Vice President of Clinical Operations and Project Management. She previously served in senior clinical and program management leadership positions in Xanthus Pharmaceuticals, Wyeth, Navigant Biotechnologies and Pharmacia.
- Stephen B. Shrewsbury, M.D., appointed Chief Medical Officer and Senior Vice President of Clinical and Regulatory Affairs. He previously held senior clinical and regulatory positions in the leadership teams of Adamas Pharmaceuticals, MAP Pharmaceuticals and GSK.

Duchenne Muscular Dystrophy Program:

- Announced successful completion of a single injection, dose escalation Phase 1 trial of AVI-4658 for the treatment of Duchenne muscular dystrophy (DMD) by exon skipping. Biopsy data showed that injection of the drug into the muscles of a series of DMD patients successfully induced dystrophin production in each patient. The drug was well tolerated, with no significant detectable drug-related adverse events.
- Announced treatment of the first patient in a clinical trial evaluating IV delivery of AVI-4658 for the treatment of DMD. The open label, 12 week safety trial will evaluate multiple infusions and ascending doses of AVI-4658 and includes measures of safety, efficacy and pharmacokinetics.
- Announced that the European Medicines Agency awarded an orphan medicinal product designation for AVI-4658 to treat DMD.

BioDefense Program:

- Received clearance from the United States Food and Drug Administration (FDA) for two Investigational New Drug (IND) applications filed in November for its two lead products, AVI-6002 and AVI-6003, for treatment of Ebola and Marburg virus infection.
- Announced that treatment of non-human primates with the antisense drug AVI-6002 or AVI-6003 resulted in a reproducible and high rate of survival (80% and 100%, respectively) in the face of an otherwise lethal infection with Ebola or Marburg virus.

Cardiovascular Restenosis:

- Global Therapeutics a Cook Medical Company received CE Mark approval for its new cobalt chromium bare metal stent. The device, the GTX Coronary Stent System, is the platform for the drug–eluting stent (DES) technology that utilizes AVI–5126.
- Announced that partner Global Therapeutics initiated the world's first clinical trial of a drug-eluting stent that uses an antisense RNA therapeutic agent (AVI–5126) aimed at silencing a key regulator (*C-MYC*) of restenosis.

Corporate Development:

- Acquired privately held Ercole Biotech, Inc., a pioneer in developing drugs for directed alternative RNA splicing.
- Raised \$16.5 million in gross proceeds following the sale of 14.2 million shares of common stock at a price per share of \$1.16 pursuant to a registered direct offering to a select group of institutional investors. Eastbourne Capital Management, LLC was the lead investor in the financing.

Publications & Patents:

- Co-hosted an international exon skipping conference for Duchenne muscular dystrophy (DMD) at the Banbury Center of Cold Spring Harbor Laboratories to review the advances in oligonucleotides as therapeutic agents for DMD.
- Publication of preclinical results demonstrating the effectiveness of a systemically delivered PPMO–based splice switching oligomer or SSO *in vivo* in a mouse model of an inherited blood disorder. The results show that PPMO–based SSOs may be effective *in vivo* not only in muscle cells for DMD treatment, but also for another genetic disease and in target cells more challenging than muscle fibers. (Proceedings of the National Academy of Sciences USA 106:1205-10.)
- Publication of preclinical results of a study designed to reduce the severity of disease in mouse models of $TNF-\alpha$ induced

hepatitis and collagen-induced arthritis. (Molecular Therapy 16:1316-22.)

- Publication of preclinical results of a study designed to demonstrate the ability of AVI's exon skipping drugs to induce sustained expression of dystrophin in the mdx mouse model of Duchenne muscular dystrophy (DMD). Treatment with the AVI compound resulted in production of functional dystrophin in all appropriate tissues, including the heart, diaphragm and skeletal muscles; these are key organs for the treatment of the disease. The findings were published in the peer–reviewed journals Molecular Therapy. 16:1624-9 and Proceedings of the National Academy of Sciences USA 105(39):14814-9
- Issuance of a U.S. patent protecting the composition of matter of AVI's RNA-based therapeutic agent AVI-5126 licensed to Global Therapeutics, a Cook Medical company, which is conducting the world's first clinical trial of a third generation drug-eluting stent that uses an RNA-based therapeutic agent.
- Issuance of a PPMO patent titled "Compositions for Enhancing Transport of Molecules into Cells."
- Exclusive worldwide license agreement with the University of Western Australia to a patent application related to the treatment DMD. The patent application, "Antisense Oligonucleotides for Inducing Exon Skipping and Methods of Use Thereof" claims compositions and methods for treating DMD in humans by skipping exons in the dystrophin gene using antisense oligomers.

Guidance:

For 2009, AVI expects expenditures for operations, net of government funding and other collaborative efforts, to be approximately \$10 to \$12 million. The Company believes it will be awarded additional government contracts to pursue the continued development of its antiviral compounds and has assumed certain revenues from these awards in providing this guidance. Should the Company not receive the additional contracts, or should their timing be delayed, it may have a significant negative impact on these projections.

Conference Call

AVI management will hold a conference call to report fourth quarter and year end 2008 financial results today, Tuesday, March 10, 2009, at 9:30 a.m. Eastern time (6:30 a.m. Pacific time).

Individuals interested in listening to the live conference call may do so by dialing 877-719-9795 toll free within the United States and Canada, or 719-325-4828 for international callers.

A replay of the call will be available by dialing 888-203-1112 toll free within the U.S. and Canada or 719-457-0820. The passcode for the replay is 9348096. In addition, a recording of the call will be available within approximately 24 hours at www.avibio.com.

About AVI BioPharma

AVI BioPharma is focused on the discovery and development of RNA–based drugs utilizing proprietary derivatives of its antisense chemistry (morpholino-modified phosphorodiamidate oligomers or PMOs) that can be applied to a wide range of diseases and genetic disorders through several distinct mechanisms of action. Unlike other RNA-based therapeutic approaches, AVI's antisense technology has been used to directly target both messenger RNA (mRNA) and its precursor (pre-mRNA), allowing for both up- and down-regulation of targeted genes and proteins. AVI's RNA–based drug programs are being evaluated for the treatment of Duchenne muscular dystrophy as well as for the treatment of cardiovascular restenosis through our partner Global Therapeutics, a Cook Group Company. AVI's antiviral programs have demonstrated promising outcomes in Ebola Zaire and Marburg Musoke virus infections and may prove applicable to other viral targets such as HCV or Dengue viruses. For more information, visit <u>www.avibio.com</u>.