AVI BioPharma to Present Safety Update from Ongoing Systemic Trial of AVI-4658 at 7th Annual Action Duchenne International Conference

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For Immediate Release

Bothell, Washington — October 22, 2009 — AVI BioPharma, Inc. (Nasdaq: AVII), a developer of RNA-based drugs, today announced that it will present updated preliminary safety data from its ongoing systemic Phase 1b/2 clinical trial of AVI-4658 in patients with Duchenne muscular dystrophy (DMD) at the 7th Annual Action Duchenne Conference taking place Oct. 23-24 in London, UK.

Steve Shrewsbury, M.D. Chief Medical Officer and Senior Vice President of Preclinical, Clinical and Regulatory Affairs of AVI, will present during a session "Medicines for Duchenne: AVI-4658 Clinical Trials" on Saturday, Oct. 24 at 2:30 p.m. local time.

Previously announced results from the ongoing Phase 1b/2 systemic trial have demonstrated that AVI-4658 has been well tolerated in patients with DMD in the first two completed cohorts (0.5 mg/kg and 1.0 mg/kg) and two ongoing cohorts (2.0 mg/kg and 4.0 mg/kg). There have been no drug-related safety issues identified. Data to be presented at the conference will include updated safety information from the four patients being dosed in the penultimate dose cohort (10 mg/kg). In each cohort, including the final cohort of 20 mg/kg, data for the clinical effects of the treatment will be collected for 26 weeks from first dose.

The open label dose-finding clinical trial is evaluating the systemic delivery of AVI-4658 once per week for 12-weeks by slow intra-venous infusion. Although the study is primarily a safety trial, it includes measures of drug efficacy and pharmacokinetics and is being conducted in London, UK at the UCL Institute of Child Health / Great Ormond Street Hospital NHS Trust facilities and at the Royal Victoria Infirmary, Newcastle-Upon-Tyne, UK, which is the coordinating center for the European Treat Neuromuscular Diseases (Treat-NMD) initiative. The clinical costs for the trial are provided, in part, by the UK Medical Research Council.

Data from the completed single-blind, placebo-controlled and dose escalation Phase 1 trial showed that AVI-4658 was safe when injected intramuscularly and successfully induced the production of dystrophin protein in patients in a dose-responsive manner.

About Duchenne Muscular Dystrophy (DMD)

DMD is one of the most common fatal genetic disorders to affect children around the world. Approximately one in every 3,500 boys worldwide is afflicted with Duchenne Muscular Dystrophy with 20,000 new cases reported each year. It 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. Symptoms usually appear in male children by age three. Progressive muscle weakness of the legs and pelvis eventually spreads to the arms, neck, and other areas. By age 10, braces may be required for walking, and most patients are confined to a wheelchair by age 12. Eventually, this progresses to complete paralysis and increasing difficulty in breathing requiring ventilatory support. The condition is terminal and death usually occurs before the age of 30. The outpatient cost of care for a non-ambulatory DMD boy is among the highest of any disease. There is currently no cure for DMD, but for the first time ever, there are promising therapies in or moving into development.

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 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 www.avibio.com.

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