January 7, 2001

AVI BioPharma Announces One-Year Survival Results from Phase II AVICINE Cancer Vaccine Study; Study Shows 'Substantial Survival Benefit

PORTLAND, Ore.--Dec. 7, 2001--AVI BioPharma Inc. (Nasdaq: AVII, AVIIW, AVIIZ) announced today that its therapeutic cancer vaccine, AVICINE, provided a substantial survival benefit in patients with pancreatic cancer.

In a 55-patient Phase II study, patients were treated with AVICINE alone or in combination with gemcitabine (Gemzar®, Eli Lilly & Co., NYSE: LLY). The randomized trial was designed to evaluate the safety and effectiveness of these treatments, and was conducted at seven centers across the United States.

One-year survival data for the AVICINE alone group is similar to that reported for Gemzar. However, patients had no significant vaccine-related side effects, in contrast to the often severe side effects associated with Gemzar. Importantly, one-year survival for the patient group treated with AVICINE plus Gemzar was significantly better than either treatment alone. Patients continue to be treated and followed, with 22 months the longest patient survival to date. These results provide support for previous observations that AVICINE is an effective cancer-fighting agent.

Principal Investigator John Marshall, M.D. of Lombardi Cancer Center, Georgetown University, Washington, D.C., commented, "These results compare very favorably to the best published results of chemotherapy alone in this condition. The results in the combination group are the best I've observed with this difficult cancer. The findings provide ample support for AVI's ongoing AVICINE cancer vaccine program." In addition to survival, study endpoints included specific antibody responses to the vaccine and the influence of chemotherapy on antibody response. Patients treated with chemotherapy and vaccine together had nearly equivalent antibody responses to vaccination, indicating that gemcitabine had little or no impact on pancreatic cancer patients' ability to respond to a new immune challenge.

"We are very encouraged by the results of this study. Our preliminary data, presented at the annual meeting of the American Society of Oncology (ASCO) in May, 2001, suggested that AVICINE is as effective as traditional chemotherapy, but without the devastating side effects associated with that treatment," said David H. Mason, Jr., M.D., AVI's Senior Vice President of Clinical Development and Regulatory Affairs. "We are particularly pleased at this time to report that one-year survival data suggest an advantage to the addition of AVICINE to traditional chemotherapy. That patients continue in the study, some beyond 18-20 months, bodes well for potential long term benefits to patients from treatment with our immunotherapeutic agent." Dr. Mason added, "Having reviewed the complete data from the study, we are encouraged that Gemzar did not seem to have a negative influence on patients' immune response to cancer vaccine treatment. Patients can undergo combination treatment without concern that this chemotherapy will reduce vaccine effectiveness." AVICINE is a therapeutic cancer vaccine that elicits a highly specific immune response to human chorionic gonadoptropin (hCG), a cancer-associated oncofetal protein. The vaccine blocks hCG's function, which is to facilitate tumor growth, angiogenesis, invasion and immunosuppression. The most common side effects of AVICINE are mild reactions at the site of injection. Six completed clinical trials have shown that it is considerably less toxic than traditional chemotherapy.

AVI BioPharma develops therapeutic products for the treatment of life-threatening diseases using two technology platforms: cancer immunotherapy and gene-targeted drugs. Its lead clinical agent, AVICINE?, a therapeutic cancer vaccine, has completed a Phase II trial in pancreatic cancer and is in a Phase III pivotal trial in colorectal cancer. The first application of its NEUGENE compounds, Resten-NG, is designed to treat cancer, cardiovascular restenosis and other cell proliferation disorders by inhibiting the production of a cellular transcription factor, the oncogene c-myc. It is currently in Phase II trials for restenosis. More information about AVI is available on the Company's website at http://www.avibio.com "Safe Harbor" Statement under the Private Securities Litigation Reform Act of 1995. The statements that are not historical facts contained in this release are forward-looking statements that involve risks and uncertainties, including, but not limited to, the results of research and development efforts, the results of pre-clinical and clinical testing, the effect of regulation by the FDA and other agencies, the impact of competitive products, product development, commercialization and technological difficulties, and other risks detailed in the Company's Securities and Exchange Commission filings.