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## **For Immediate Release**

### DATA FROM PRECLINICAL STUDIES EXAMINING EFFECT OF ATN-161 ON ORGAN AND SKELETAL METASTASES OF BREAST CANCER PRESENTED AT AMERICAN ASSOCIATION FOR CANCER RESEARCH ANNUAL MEETING

SAN DIEGO, CA – March 29, 2004 – Attenuon, LLC, a private pharmaceutical company developing a new generation of cancer therapies, announced that Dr. Shafaat Rabbani of McGill University will give an oral presentation describing preclinical data demonstrating that treatment with ATN-161 significantly slowed the progression of primary tumors and completely inhibited the growth of well-established bone metastases. This presentation will be delivered during a mini-symposium on novel therapeutic agents at the Annual Meeting of the American Association for Cancer Research (AACR) in Orlando, Florida on Tuesday, March 30<sup>th</sup>, 2004.

“We are greatly encouraged by the results of these early animal studies,” remarked Dr. Rabbani. “There are few good treatment options for patients whose cancers have spread to their bones. Much work remains to be done, but that we could completely block the progression of established bone metastases is very exciting.”

ATN-161 is an innovative experimental cancer treatment that is currently completing Phase I clinical trials at the Fox Chase Cancer Center in Philadelphia. Derived from a small fragment of a human protein, ATN-161 is based on a discovery by Dr. Donna Livant of the University of Michigan and is designed to work by selectively altering cellular signaling processes important to tumor angiogenesis, growth and metastasis (the spreading of tumors).

In the studies to be presented at the AACR meeting, a McGill team consisting of Dr. Rabbani and Dr. Parisa Khalili evaluated the ability of ATN-161 to block primary tumor growth and the development of organ and skeletal metastases, which are commonly associated with late stage breast cancer, in a mouse xenograft model of breast cancer. In a first study, human MDA-MB-231 breast cancer cells were introduced into the mammary fat pad of female nude mice. Animals were then infused intravenously with placebo or ATN-161 for six weeks. Tumors in animals receiving ATN-161 grew significantly more slowly than tumors in animals receiving placebo control.

In subsequent studies, mice were infused with placebo or ATN-161 for 10 weeks after intracardiac inoculation of tumor cells. Animals were monitored weekly by Faxitron for the development of skeletal metastases. At the end of the study, metastatic tumor cells were routinely seen in the lungs, livers, and spleens of control animals, while treatment

with ATN-161 resulted in a significant decrease in the number of tumor metastases in these organs. In addition, radiological analysis of long bones demonstrated that ATN-161 treatment completely blocked the development of osteolytic (bone-depleting) skeletal metastases in the femora and tibia in three of the ten treated animals and led to a significant decrease in the number and size of osteolytic lesions in the other seven treated animals. Analysis showed a significant decrease in the total area of osteolysis and tumor/bone ratio in the mice treated with ATN-161. Finally, ATN-161 was able to completely block the progression of well-established radiographically evident bone metastases, while animals receiving only placebo had significant progression of metastatic bone lesions.

The AACR annual meeting is the world's leading multidisciplinary event in the field, featuring the latest findings and most significant information in laboratory, translational and clinical cancer research. It attracts clinical oncologists, basic scientists, epidemiologists and translational researchers from around the world, working toward the eradication of cancer.

Further information from the study, and the abstract *Regression of primary breast tumor and blockage of osteolytic skeletal metastasis by a non-RGD based integrin binding peptide (ATN-161) targeting  $\alpha_5\beta_1$  and  $\alpha_n\beta_3$  in a xenograft model of breast cancer* can be obtained by contacting Andrew P. Mazar, Ph.D., Attenuon's chief scientific officer, at 858-622-0510.

#### About Attenuon

Attenuon was founded in May 1998 with the goal of working with leading academic laboratories to rapidly translate advances in the understanding of tumor biology into less toxic drugs to control the growth and progression of cancer. Attenuon's staff includes leading researchers in tumor biology and synthetic chemistry as well as industry veterans knowledgeable in drug development. Attenuon's compounds – two of which are currently in clinical trials – are intended to target a broad range of tumors and the blood vessels that feed their growth without affecting healthy cells. The company believes that these compounds could thus be effective against many types of cancer. Attenuon is located in the Sorrento Valley area of San Diego, California. For additional information regarding Attenuon, please visit [www.attenuon.com](http://www.attenuon.com).

*This news release contains certain forward-looking statements by Attenuon that are based on current expectations and estimates, and which involve risks and uncertainties and reflect Attenuon's judgment as of the date of this release. Forward-looking statements often contain such words as "expect," "estimate," "plan," "believe," "anticipate," and "intend." Actual events or results may differ materially from Attenuon's expectations. Attenuon disclaims any intent or obligation to update these forward-looking statements whether as a result of new information, future events, or otherwise.*

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