

## **Boston BioCom LLC Announces Continued Advancement of Jantibody Therapeutics LLC Subsidiary**

### **Strain Engineering Program with Pfenex Inc. Results in Production of First HSP-avidin Fusion Proteins for the Jantibodies Platform**

Boston, MA, April 6, 2010—[Boston BioCom LLC](#) today announced the continued advancement of its Jantibody Therapeutics subsidiary technology platform, with the successful completion of a collaborative research agreement with Pfenex Inc. for the rapid production of a fusion protein. Jantibody Therapeutics was created by Boston BioCom to commercialize a novel class of immunologically-enhanced monoclonal antibodies (mAbs) that utilize heat shock protein 70 (HSP 70) for initial applications in oncology, as well as a self-assembling HSP vaccine platform that can be used to enhance the effectiveness of existing mAbs and to readily generate cancer vaccines.

Under the terms of the collaboration research agreement, Pfenex Inc applied its *Pfenex* Expression Technology™ platform to produce initial amounts of HSP-avidin fusion protein for the Jantibodies platform. Pfenex's technology utilizes an extensive toolbox of engineered host strains and expression elements derived from *Pseudomonas fluorescens* bacteria to rapidly screen and identify a production strain producing soluble, active protein. This collaboration was funded through a DTRA contract award.

“Through this constructive collaboration with Pfenex Inc, Jantibody Therapeutics has made another important step in advancing its technology platform into products that could potentially treat infections or cancers,” said Jeffrey Gelfand, Ph.D., Chief Scientific Officer of Boston BioCom. “Targeted monoclonal antibodies and therapeutic vaccines for oncology both represent large and rapidly growing market segments and we are taking advantage of this opportunity with an innovative approach that may significantly improve upon existing mAbs and cancer vaccines, particularly related to the scale and range of immune response that they can achieve.”

“This project with Jantibody Therapeutics demonstrates that the *Pfenex* Expression Technology platform supports the rapid advancement of high-quality proteins for our partners to use in applications such as vaccines,” said Charles H. Squires, Ph.D., Vice President of Discovery and Partnerships of Pfenex Inc. “Our success with Jantibodies, in addition to the validation provided by our DTRA funding, establishes Pfenex as a preferred provider of rapid protein production to drug discovery and development companies.”

#### **About the Jantibodies Technology Platform**

The Jantibodies platform is based on the unique immunogenic properties of heat shock proteins (HSPs), intracellular signaling molecules that generate a powerful cytotoxic immune response. The products of this platform are novel therapeutic antibodies and vaccines that are initially being developed against a broad range of cancers. These breakthroughs are a result of the



integration of technology platforms developed at the Massachusetts General Hospital, which has licensed these discoveries to Jantibody Therapeutics.

The first application of the Jantibodies platform is a novel class of therapeutic antibodies that utilize HSP 70 fused to monoclonal antibodies or antibody fragments. The HSP unit is linked with the single chain variable fragment (antibody binding site fragments) of a monoclonal antibody against a therapeutic target, such as a tumor cell receptor. The single chain variable fragment of the fusion attaches to the target, while the HSP 70 portion triggers a humoral and cell-mediated immune response that may be highly effective in treating solid tumor cancers.

The second application of this platform is a new class of proteins called “self-assembling vaccines,” which contain fusion proteins of HSP with avidin. Avidin is a biological molecule that binds with extremely high affinity to the small molecule biotin. These fusions, produced in advance, can be rapidly combined with practically any antigen or antibody fragment labeled with biotin, and form a complex that will strongly increase immunogenic properties of the antigen and the immune response to the antigen.

#### **About Boston BioCom LLC**

Boston BioCom is a biomedical technology commercialization company created to earn a superior return for its investors by actively developing and managing a hand-picked portfolio of biomedical innovations towards optimal commercial endpoints. The company brings together preeminent academic expertise, industry-leading pharmaceutical capabilities, and a highly experienced management team to create value from an extraordinary flow of technology opportunities. [www.boston-bio.com](http://www.boston-bio.com)

#### **About Pfenex Inc.**

Pfenex Inc. is a protein production company leveraging the unique and powerful *Pfenex* Expression Technology™ platform based on the microorganism, *Pseudomonas fluorescens*, for the production of research proteins, reagent proteins, biosimilars and innovator biopharmaceuticals. For more information please visit [www.pfenex.com](http://www.pfenex.com)

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