

## FOR IMMEDIATE RELEASE

### Contact:

Immunomic Therapeutics, Inc.  
PR/Marketing (US)  
717-327-1919

## **Immunomic Therapeutics and Astellas Pharma announce exclusive licensing agreement for LAMP-vax platform to prevent and treat allergies**

*--Immunomic Therapeutics to receive upfront payment of \$300 million plus 10 percent royalties from potential products for allergic diseases, including peanut allergy--*

*--Immunomic Therapeutics to retain rights of LAMP-vax platform for other applications, particularly cancer immunotherapy--*

HERSHEY, Pa. and ROCKVILLE, Md., October 9, 2015 - Immunomic Therapeutics, Inc. ("ITI"), a privately-held biotechnology company developing next generation vaccines based on the LAMP-vax platform, today announced that it has entered into an exclusive worldwide licensing agreement with Astellas Pharma Inc. on LAMP-vax products for the treatment or prevention of any and all allergic diseases in humans. Upon execution of the agreement, Immunomic Therapeutics will receive an upfront payment of \$300 million and be entitled to receive 10 percent royalties based on net sales of the potential products for allergic diseases while retaining the rights to the LAMP-vax platform for other applications, including cancer immunotherapy.

The LAMP-vax platform utilizes the body's natural biochemistry to develop a complete immune response, including antibody production, cytokine release and critical immunological memory directed toward a chosen protein.

"The LAMP-vax platform has enormous potential to broadly impact human health. Our recent work in developing a new approach to treating allergies could be life-changing for allergy sufferers, including those that are at high risk for a strong reaction to peanut," said Dr. William G. Hearl, chief executive officer of Immunomic Therapeutics. "We are excited to partner again with Astellas, and the large scale and scope of this partnership allows Immunomic to focus our efforts on other applications like oncology, where we have seen promising results from early stage studies of LAMP-vax-based cancer immunotherapy."

Under the terms of the agreement, Astellas has acquired the exclusive worldwide rights to research, develop, manufacture, and commercialize any potential LAMP-vax products designed to prevent and treat allergic diseases in humans, including ARA-LAMP-vax for peanut allergy as well as other research-stage programs for food or environmental allergies.

"Allergy remains a major challenge in modern medicine and there has been limited progress in developing a highly effective strategy in preventing and treating allergy," said

Dr. Shan Lu, MD, PhD, Professor of Medicine and Biochemistry, University of Massachusetts Medical School. "It is exciting to see that LAMP-vax based DNA vaccination in early phase clinical studies showed potential promise in redirecting the immune responses in order to control the symptoms of allergy."

The science and technology behind LAMP-vax emerged from \$20 million grant by the National Institutes for Health to Dr. Tom August, MD, Distinguished Service Professor of Pharmacology and Molecular Sciences and Oncology, Johns Hopkins University School of Medicine. In 2006, ITI acquired the exclusive worldwide license to the LAMP technology patent estate.

"We are thrilled that this transformative work, another example of Johns Hopkins pioneering research, is being further developed with great potential to benefit society at large," said Neil Veloso, Executive Director of Technology Transfer at Johns Hopkins. "Achieving the successful translation of our technologies enables us to fulfill the promise of our research mission."

### **About LAMP-vax platform**

The LAMP-vax platform is a breakthrough technology that has the potential to fundamentally improve the use of vaccines across a wide variety of diseases. LAMP-vax is a next-generation DNA vaccine that stimulates an immune response against a particular protein by injecting the DNA encoding the protein rather than the protein itself. However, unlike older, conventional DNA vaccines, LAMP-vax includes the DNA sequence encoding Lysosomal Associated Membrane Protein (LAMP). This allows DNA vaccines developed, based on the LAMP-vax platform, to utilize the body's natural biochemistry to develop a more complete immune response compared to conventional DNA vaccines. Unlike conventional DNA vaccines that primarily elicit a cytotoxic T cell immune response, vaccines developed using LAMP-vax initiate a more complete immune response, including antibody production, cytokine release and critical immunological memory. The ability to activate a complete immune response gives LAMP-vax technology potential across a number of diseases, including cancer immunotherapy, allergy and infectious diseases.

### **About ARA-LAMP-vax**

Food allergies cause more than 30,000 cases of severe allergic reactions (anaphylaxis) and 100 to 200 deaths in the United States every year. A common and potentially serious food allergy is to peanuts, which can cause potentially life-threatening anaphylaxis, even from trace exposures. Peanut allergies affect more than 1.5 million Americans who have to maintain constant dietary vigilance to reduce the risk of accidental peanut-induced anaphylaxis. There is no available peanut-specific treatment approved by the U.S Food and Drug Administration for peanut allergies. ARA-LAMP-vax has been developed based on LAMP-vax platform, of which exclusive and worldwide license is granted to Immunomic Therapeutics by Johns Hopkins University. ARA-LAMP-vax is a LAMP-based DNA vaccine that is designed to change the immune response to the major peanut allergens, with the goal of elimination of allergy symptoms.

### **About Immunomic Therapeutics**

Immunomic Therapeutics, Inc. (ITI) is a privately-held clinical stage biotechnology company dedicated to pioneering vaccines that transform lives. Headquartered in Hershey, PA with lab facilities in Rockville, MD, ITI is developing next-generation

vaccines based on patented LAMP Technology. Its LAMP-vax vaccine platform significantly increases the immune response to nucleic acid vaccines and simplifies vaccine design and delivery for safer, more cost-effective therapies. LAMP constructs have been validated in human clinical trials for cancer and have been applied to targets like allergy, cancer and infectious diseases. Immunomic Therapeutics' vision is to have regulatory approved products in pollen allergy, food allergy, cancer, and animal health. For information about Immunomic Therapeutics and LAMP Technology, visit [www.immunomix.com](http://www.immunomix.com).

### **About Astellas**

Astellas Pharma Inc., based in Tokyo, Japan, is a company dedicated to improving the health of people around the world through the provision of innovative and reliable pharmaceutical products. The company focuses on Urology, Oncology, Immunology, Nephrology and Neuroscience as prioritized therapeutic areas while advancing new therapeutic areas and discovery research, leveraging new technologies/modalities. Astellas is also creating new value by combining internal capabilities and external expertise in the medical/healthcare business. Astellas is on the forefront of healthcare change to turn innovative science into value for patients. For more information, please visit the company website at [www.astellas.com/en](http://www.astellas.com/en).

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