



## Press Release

# Tottori University and Astellas Enter into the Global Exclusive Licensing Agreements for Immunostimulating Gene Loading Oncolytic Virus

Tottori and Tokyo, March 6, 2018 - Tottori University (President: Ryota Teshima, "Tottori University") and Astellas Pharma Inc. (TSE:4503, President and CEO: Yoshihiko Hatanaka, "Astellas") today announced that they entered into the global exclusive licensing agreements<sup>1</sup> on development/commercialization of immunostimulating gene loading oncolytic virus.

Oncolytic virus exerts antitumor effect on tumor cells by selectively proliferating in them and destroying them. The immunostimulating gene loading oncolytic virus to be covered by these agreements is expected to induce, besides the above antitumor effect, antitumor immunity to tumors not responding to currently available cancer immunotherapies, that is to say, tumors without infiltration of lymphocytes into tumor tissues, through activation of innate immunity<sup>2</sup> and acquired immunity<sup>3</sup> by multiple gene products.

Yasuaki Hirooka, Dean of Faculty of Medicine Tottori University, commented as follows: "On the basis of the results of long-term research supported by MEXT<sup>4</sup> and AMED<sup>5</sup> on oncolytic viruses by Takafumi Nakamura (Associate Professor, Graduate School of Medical Sciences, Tottori University), progress has been accomplished by collaborative research with Astellas, resulting in the oncolytic virus carrying immunity-enhancement genes that is presented on this occasion. This is the result of Tottori University and Astellas combining their efforts, knowledge and expertise to tackle a highly innovative research, and we hope that the contract will facilitaite progression towards development of innovative cancer treatments. In addition, we hope to continue to make progress with development of new oncolytic viruses by expanding this academic-industrial liaison."

Kenji Yasukawa, Executive Vice President, Chief Strategy Officer & Chief Commercial Officer, commented as follows: "We are pleased to have concluded the exclusive licensing agreements on immunostimulating gene loading oncolytic virus expected to contribute to innovative cancer immunotherapy. This project is also positioned as a part of Astellas' challenge to new modalities. Astellas will expand

development pipelines in the field of oncology, one of the important franchises that support our sustainable growth."

- (1) Some of the rights relating to the fundamental technology are non-exclusive.
- (2) Innate immunity: resistance to some pathogens that are present in the living body from birth.
- (3) Acquired immunity: immunity obtained from vaccination or an attack of an infectious disease after birth.
- (4) Ministry of Education, Culture, Sports, Science and Technology
- (5) Japan Agency for Medical Research and Development

#### **About Faculty of Medicine Tottori University**

National University Corporation, Faculty of Medicine Tottori University, now has 70 years of history as an important center for education in the healthcare field in the San'in Region. This faculty's approaches to medicine and healthcare making use of societal aging, and other characteristics of the San'in Region, have led to success in establishing an arena for original and cutting-edge education and research. The accumulated results have been highly rated internationally, as well as in terms of regional healthcare. On the basis of these results, ties between the School of Medicine, School of Life Sciences, and School of Health Sciences have been strengthened, facilitating the training and education of highly creative healthcare personnel and life-science researchers who place the greatest importance on dignity of human life. While performing practical medical education for advanced and cutting-edge healthcare on the basis of liaison with affiliated hospitals, by links with other hospitals, from the perspective that the San'in Region as a whole can be viewed as a single large medical institution, we will continue to work towards the goal of being a model for healthcare in Japan as a whole.

#### **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. We focus on Urology, Oncology, Immunology, Nephrology and Neuroscience as prioritized therapeutic areas while advancing new therapeutic areas and discovery research leveraging new technologies/modalities. We are 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 our website at <a href="https://www.astellas.com/en">https://www.astellas.com/en</a>.

#### **Cautionary Notes (Astellas)**

In this press release, statements made with respect to current plans, estimates, strategies and beliefs and other statements that are not historical facts are forward-looking statements about the future performance of Astellas. These statements are based on management's current assumptions and beliefs in light of the information currently available to it and involve known and unknown risks and uncertainties. A number of factors could cause actual results to differ materially from those discussed in the forward-looking statements. Such factors include, but are not limited to: (i) changes in general economic conditions and in laws and regulations, relating to pharmaceutical markets, (ii) currency exchange rate fluctuations, (iii) delays in new product launches, (iv) the inability of Astellas to market existing and new products effectively, (v) the inability of Astellas to continue to effectively research and

develop products accepted by customers in highly competitive markets, and (vi) infringements of Astellas' intellectual property rights by third parties.

Information about pharmaceutical products (including products currently in development) which is included in this press release is not intended to constitute an advertisement or medical advice.

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