

Wistar startup immunaccel aims to accelerate the translation of immunology therapies

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Cancer immunotherapies have proven to be very successful in stimulating the body's own immune system to recognize and combat cancer, placing the groundbreaking drugs at the forefront of research and development in cancer research communities across the world. The Wistar Institute, the nation's first independent biomedical research institute and a NCI-Designated Cancer Center, has a long history of scientific contributions made to the study of cancer biology and immunology and continues to make important, cutting-edge immunological research strides every day. Immunaccel, a start-up recently launched out of Wistar, seeks to leverage research infrastructure, proprietary technology and key expertise to help biotech and pharmaceutical partners advance their drug candidates in the rapidly expanding and challenging immuno-oncology space.

The promising progress made in delivering effective immuno-oncology therapies has led to a significant reprioritization of research and development activities at pharmaceutical and biotechnology companies, and a substantial increase in venture-backed startups focused on identifying the next generation of immuno-oncology targets. However, there remains a need for reliable and physiologically relevant in vitro model systems to efficiently translate these novel immuno-oncology targets and corresponding drug candidates into the clinic.

Immunaccel's unique and patented 3-D, tumor-immune

microenvironment model system is based upon a decade of Wistar's scientific advancements made by Rajasekharan Somasundaram, Ph.D., research assistant professor and immunologist in Wistar's Molecular and Cellular Oncogenesis Program, Dorothee Herlyn, DVM, D.Sc., Wistar Professor Emeritus, and Meenhard Herlyn, D.V.M, D.Sc., Caspar Wistar Professor in Melanoma Research, director of Wistar's Melanoma Research Center, and professor in the Molecular and Cellular Oncogenesis Program. Together, Somasundaram and the Herlyn lab have produced distinctive, translational technologies and techniques that shed light on the inner workings of a patient's tumor microenvironment.

"By utilizing our unique 3-D model system together with patient-matched or patient-derived tumor and immune cells, we are able to recreate a patient's unique tumor microenvironment in order to identify new immuno-oncology drug targets, assess the most effective combination of existing immunotherapies, and dissect the underlying mechanisms of treatment resistance and response to important immune checkpoint therapies such as anti-PD-1, PD-L1, CTLA4, and others," said Somasundaram.

"Translating immuno-oncology therapies into the clinic, has relied on traditional in vitro and in vivo model systems that are at times deficient in effectively mimicking the tumor microenvironment and obtaining mechanistic readouts," said Vik Subbu, Immunacel's chief operating officer. "Immunacel's model system—know-how coupled with access to clinical samples through a collaborative network—makes our technology platform a unique value proposition and useful tool for our biotech and pharma partners developing immuno-oncology therapies."

"We are pleased to be leveraging the power of Wistar Science to fuel Immunacel's engine for discovery and drug development" said Heather Steinman, Ph.D., M.B.A., vice president for Business Development and executive director for Technology Transfer at The Wistar Institute.

Provided by The Wistar Institute

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