

Adaptive Biotechnologies to Enter Into Worldwide Collaboration and License Agreement with Genentech to Develop Personalized Cellular Therapies for the Treatment of Cancer

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SEATTLE, Wa., January 4, 2019 – Adaptive Biotechnologies, an immune-driven medicine company, today announced that it will enter into a worldwide collaboration and license agreement with Genentech, a member of the Roche Group, to develop, manufacture and commercialize novel neoantigen directed T-cell therapies for the treatment of a broad range of cancers. The collaboration will combine Genentech's global cancer immunotherapy research and development leadership with Adaptive's proprietary T-cell receptor (TCR) discovery and immune profiling platform (TruTCRTM) to accelerate a transformational new treatment paradigm of tailoring cellular therapy for each patient's individual cancer.

Please view the full multimedia press release here: https://www.businesswire.com/news/home/20190104005112/en/Adaptive-Biotechnologies-Enter-Worldwide-Collaboration-License-Agreement

"We are thrilled that Genentech has selected Adaptive as a partner to develop neoantigen directed T-cell therapies, a personalized approach to cellular therapy," said Chad Robins, chief executive officer and co-founder of Adaptive Biotechnologies. "Genentech brings an industry-leading team of scientists and drug development experts who could potentially enable our patented TCR discovery and immune profiling platform to help as many patients as possible."

Adaptive offers a pioneering technology platform to rapidly identify T-cell receptors (TCRs) that can most effectively recognize and directly target specific neoantigens, which are proteins generated by tumor-specific mutations not present in normal tissues. Through this partnership, Adaptive will utilize the investigational TCR discovery platform to identify the optimal TCRs to most effectively target each patient's neoantigens for treatment. Genentech will engineer and manufacture a personalized cellular medicine to deliver to each patient. The goal is to harness the vast majority of therapeutically relevant, patient-specific neoantigens and advance the next generation of cellular therapies in oncology.

"We believe targeting neoantigens could be the most effective approach for harnessing a person's immune system to fight cancer," said James Sabry, M.D., Ph.D., global head of Pharma Partnering, Roche. "This partnership, which combines Adaptive's pioneering platform for identifying T-cell receptors with Genentech's cancer immunology expertise, has the potential to change the way cancer is treated and bring us one step closer to truly personalized healthcare."

"Cellular therapy approaches in cancer have been limited by the inability to effectively screen and translate the immune response to patient-specific neoantigens. Accurate recognition of such neoantigens is a major driver in the activity of novel immunotherapies," added Harlan Robins, Ph.D., head of innovation and co-founder of Adaptive Biotechnologies. "Given Adaptive's unique ability to read and access the immune system at unprecedented scale and precision, Adaptive and Genentech can potentially jointly develop a patient-specific approach to treating cancer."

Under the terms of the agreement, Adaptive will receive \$300 million in an initial upfront payment and may be eligible to receive more than \$2 billion over time, including payments upon achievement of specified development, regulatory and commercial milestones, and royalties on sales. Genentech will have responsibility for clinical, regulatory, and commercialization efforts, and Adaptive will be responsible for patient-specific screening on a global basis

Adaptive will continue to use its TCR discovery and immune profiling platform to collaborate in the development of cellular therapies in other disease areas, including autoimmune conditions and infectious diseases.

The completion of the agreement is subject to customary closing conditions, including clearance under the Hart-Scott-Rodino Antitrust Improvements Act, and is expected to occur in the first quarter of 2019.

Chad Robins, Adaptive CEO, will present at the 37th Annual J.P. Morgan Healthcare Conference in San Francisco on Tuesday, January 8 at 11:30 am PT/2:30 pm ET. Robins will also participate in a panel presentation, Reinventing the Disease Continuum Through Precision Health, on January 7, 2019 at 5:00 pm PT/8:00 pm ET to discuss the impact of immune profiling on the future of immune-driven medicine.

About the TruTCR Screening Platform in this Collaboration

Adaptive's TruTCR screening platform enables the discovery of TCRs against any type of clinically relevant antigen at high throughput. The platform can be used to identify antigens that are shared among patients as well as those that are specific to individual patients. In this collaboration, TruTCR will be used to identify and characterize clinical-grade superior TCRs for attractive antigen binding and tumor cell killing activity plus safety properties by querying hundreds of antigens simultaneously with high sensitivity. To initiate clinical development, the collaboration will first leverage Adaptive's growing library of well-characterized antigen-specific TCRs that have been screened against thousands of known cancer antigens in patients. The ultimate goal, however, is to screen and select a patient's own potent TCRs targeting their own most relevant neoantigens as a personalized therapy. This individual patient screening process will be implemented as part of the manufacturing process for each treated patient to custom tailor a cell therapy medicine for that specific patient's cancer.

About Adaptive Biotechnologies

Adaptive Biotechnologies is a pioneer and leader in immune-driven medicine that aims to improve people's lives by learning from the wisdom of their adaptive immune systems. Adaptive's proprietary immune profiling platform reveals and translates insights from our adaptive immune systems with unprecedented scale and precision. Working with drug developers, clinicians and academic researchers, we are applying these insights to develop

products that will transform the way we diagnose and treat diseases such as cancer, autoimmune conditions, and infectious diseases. For more information, please visit <u>adaptivebiotech.com</u>.

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