



Adaptimmune and Alpine Immune Sciences Announce Collaboration and License Agreement to Develop Next-Generation SPEAR T-Cell Products

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- Adaptimmune to license Alpine's Secreted and Transmembrane Immunomodulatory Protein technology for use with SPEAR T-cells to enhance antitumor responses -

PHILADELPHIA and OXFORDSHIRE, United Kingdom, May 15, 2019 (GLOBE NEWSWIRE) -- Adaptimmune Therapeutics plc (Nasdaq:[ADAP](#)), a leader in T-cell therapy to treat cancer, and Alpine Immune Sciences, Inc., Seattle, WA, (NASDAQ:[ALPN](#)), a leading immunotherapy company focused on developing treatments for autoimmune diseases and cancer, today announced a collaboration and license agreement to develop next-generation SPEAR T-cell products which incorporate Alpine's secreted and transmembrane immunomodulatory protein (termed SIP™ and TIP™) technology. This collaboration will further enhance Adaptimmune's efforts to design and develop next-generation SPEAR T-cell therapies.

"SPEAR T-cell therapies have demonstrated clinical promise for the treatment of solid tumors. Based on knowledge emerging from translational research of resistance mechanisms, we will start our first next-gen clinical study with ADP-A2M4CD8 in the second half of 2019," said Rafael Amado, Adaptimmune's President of R&D. "We are very excited to begin this collaboration with Alpine which complements our research on next-generation SPEAR T-cells. We believe that Alpine's platform technology could engage further rapid and flexible immunomodulatory mechanisms, which would enable the development of future next-generation SPEAR T-cells with enhanced antitumor potential."

"Our directed evolution platform has successfully generated many unique, multi-functional protein domains designed to favorably modulate the tumor microenvironment via validated immune targets," said Stanford Peng, MD PhD, Alpine's President and Head of Research & Development. "We look forward to working with Adaptimmune to develop next-generation SPEAR T-cell therapies to achieve improved clinical outcomes."

Alpine and Adaptimmune will collaborate on a specified number of programs to develop SIP and TIP candidates with tailored affinities and modulatory activities that may enhance the anti-tumor responses seen with Adaptimmune's SPEAR T-cells.

For each program, Adaptimmune has an option to take a worldwide exclusive license for development and commercialization of SPEAR T-cell products incorporating the developed SIP or TIP candidate for the treatment of cancer.

Under the terms of the collaboration agreement, Adaptimmune will provide an upfront payment and research funding for ongoing programs. In addition, Alpine may be eligible for downstream development and commercialization milestones up to \$288M, if all pre-specified milestones for each program are achieved.

Alpine will receive low-single digit royalties on worldwide net sales of the applicable products.

About Adaptimmune

Adaptimmune is a clinical-stage biopharmaceutical company focused on the development of novel cancer immunotherapy products for cancer patients. The Company's unique SPEAR (Specific Peptide Enhanced Affinity Receptor) T -cell platform enables the engineering of T-cells to target and destroy cancer across multiple solid tumors. For more information, please visit <http://www.adaptimmune.com>.

About Alpine Immune Sciences, Inc.

Alpine Immune Sciences, Inc. is committed to leading a new wave of functional immune therapeutics. Alpine is employing directed evolution to create potentially powerful multifunctional immunotherapies to improve patients' lives. Alpine has two lead programs. The first, ALPN-101 for autoimmune/inflammatory diseases, is a dual ICOS/CD28 antagonist, engineered to reduce pathogenic immune responses. The second, ALPN-202 for cancer, is a dual PD-L1/CTLA-4 antagonist and PD-L1-dependent CD28 costimulator intended to combine checkpoint inhibition with T cell costimulation – an approach currently absent from approved checkpoint therapies. Alpine is backed by world-class research and development capabilities, a highly-productive scientific platform, and a proven management team. For more information, visit www.alpineimmunesciences.com.

Forward-Looking Statements Adaptimmune

This release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 (PSLRA). These forward-looking statements involve certain risks and uncertainties. Such risks and uncertainties could cause our actual results to differ materially from those indicated by such forward-looking statements, and include, without limitation: the success, cost and timing of our product development activities and clinical trials and our ability to successfully advance our TCR therapeutic candidates through the regulatory and commercialization processes. For a further description of the risks and uncertainties that could cause our actual results to differ materially from those expressed in these forward-looking statements, as well as risks relating to our business in general, we refer you to our Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission (SEC) on May 6, 2019, and our other SEC filings. The forward-looking statements contained in this press release speak only as of the date the statements were made and we do not undertake any obligation to update such forward-looking statements to reflect subsequent events or circumstances.

Forward-Looking Statements Alpine

This release contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, Section 21E of the Securities Exchange Act of 1934 and the Private Securities Litigation Reform Act of 1995. These forward-looking statements are not based on historical fact and include statements regarding our platform technology and potential therapies, the potential future development plans of our and our collaborators'

product candidates and our and our collaborators' ability to successfully develop and achieve milestones in development programs. Forward-looking statements generally include statements that are predictive in nature and depend upon or refer to future events or conditions, and include words such as "may," "will," "should," "would," "expect," "plan," "intend," and other similar expressions among others. These forward-looking statements are based on current assumptions that involve risks, uncertainties and other factors that may cause actual results, events or developments to be materially different from those expressed or implied by such forward-looking statements. These risks and uncertainties, many of which are beyond our control, include, but are not limited to: clinical trials may not demonstrate safety and efficacy of any of our or our collaborators' product candidates; our ongoing discovery and pre-clinical efforts may not yield additional product candidates; our discovery-stage and pre-clinical programs may not advance into the clinic or result in approved products; any of our or our collaborators' product candidates may fail in development, may not receive required regulatory approvals, or may be delayed to a point where they are not commercially viable; we may not achieve additional milestones in our proprietary or partnered programs; the impact of competition; adverse conditions in the general domestic and global economic markets; as well as the other risks identified in our filings with the Securities and Exchange Commission. These forward-looking statements speak only as of the date hereof and we undertake no obligation to update forward-looking statements, and readers are cautioned not to place undue reliance on such forward-looking statements.

"Transmembrane Immunomodulatory Protein", "TIP", "Secreted Immunomodulatory Protein", "SIP" "Variant Ig Domain", "vIgD", and the Alpine logo are registered trademarks or trademarks of Alpine Immune Sciences, Inc. in various jurisdictions.

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