Alpine Immune Sciences Presents Preclinical Data on Novel Immuno-Oncology Molecules at the Society for Immunotherapy of Cancer's 32nd Annual Meeting

November 10, 2017

-- Company's vIgD Platform Well Positioned to Realize Next Generation Immuno-Oncology Therapeutics --

SEATTLE--(BUSINESS WIRE)--Nov. 10, 2017-- Alpine Immune Sciences, Inc. (NASDAQ:ALPN), a leading immunotherapy company focused on developing treatments for autoimmune/inflammatory diseases and cancer, today announced immuno-oncology preclinical data characterizing the functional activity of molecules Alpine successfully generated from its variant immunoglobulin domain (vIgD) platform. Several novel immuno-oncology molecules were functionally active via multiple mechanisms of action, including the demonstration of tumor suppression in an animal model. The findings will be presented on Friday, November 10, in a poster session titled "Immune Modulation, Cytokines, and Antibodies" [#P343] at the Society for Immunotherapy of Cancer's (SITC) 32nd Annual Meeting in National Harbor, MD.

"Our unique vIgD platform is capable of producing first-in-class immuno-oncology biologics with potentially unique mechanisms of action," said Stanford Peng, M.D., Ph.D., Executive Vice President of Research and Development and Chief Medical Officer of Alpine. "This promising data highlights the versatility of the platform, showing vIgDs may be implemented in multiple therapeutic formats and may be tailored to modulate multiple molecular pathways according to the desired therapeutic application."

Preclinical Study Design and Results

Alpine scientists used the vIgD directed evolution platform to engineer a number of vIgDs with unique binding profiles to proteins relevant to the immune synapse, including PD-1, PD-L1, CTLA-4, TIGIT, CD155, CD28, and/or ICOS. The poster describes the vIgD domains in multiple therapeutic formats, including tumor-localized Fc fusion proteins, multi-checkpoint inhibitors, and vIgDs fused with tumor-specific monoclonal antibodies (V-mAbs). Various *in vitro* and *in vivo* tests characterized the functional activity of these potentially novel therapeutics. Data include:

- Tri-specific vIgDs for treating cancer with a single domain capable of interacting with three different B7 family members. Depending on formatting, tri-specific vIgDs are potentiallycapable of agonizing CD28, blocking PD-L1, blocking CTLA-4, and/or depleting tumor cells and/or regulatory T cells. Initial formats investigated in an animal model of cancer demonstrated activity with tumor growth suppression.
- A dual ICOS/CD28 costimulatory vIgD fused with the HER2-targeting monoclonal antibody trastuzumab to provide immune stimulation in the tumor microenvironment. These V-mAbs demonstrated *in vitro* proof of principle for immune cell stimulation and proliferation in response to HER2-positive tumor cells.
- Multiple vIgD Fc fusions capable of targeting TIGIT and PD-1 while sparing CD226. These multi-checkpoint inhibitory molecules blocked checkpoint activity and improved IFN-γ production by "exhausted" T cells.

"The SITC data suggest the versatile vIgD platform has the potential to contribute to the next generation of immuno-oncology therapeutics. Based on these and other encouraging preclinical data, we are continuing to identify and develop appropriate candidates from our vIgD platform for clinical trials for both oncology and inflammation," said Mitchell H. Gold, M.D., Executive Chairman and Chief Executive Officer of Alpine.

About Alpine Immune Sciences, Inc.

Alpine Immune Sciences, Inc. is focused on developing novel protein-based immunotherapies using its proprietary Variant Ig Domain (vIgD) platform technology. The vIgD platform is designed to interact with multiple targets, including many present in the immune synapse. Alpine's vIgDs are developed using a process known as directed evolution, which produces proteins capable of either enhancing or diminishing an immune response and thereby may potentially apply therapeutically to cancer, autoimmune and inflammatory diseases. Alpine has also developed Transmembrane Immunomodulatory Protein (TIP) technology, based on the vIgD platform, to potentially enhance engineered cellular therapies. For more information, visit www.alpineimmunesciences.com.

Forward-Looking Statements

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 Alpine's platform technology and potential therapies. 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: Alpine's discovery-stage and pre-clinical programs may not advance into the clinic or result in approved products on a timely or cost-effective basis or at all; Alpine may not achieve additional milestone payments pursuant to its collaborations; the impact of competition; adverse conditions in the general domestic and global economic markets; as well as the other risks identified in Alpine's filings with the Securities and Exchange Commission. These forward-looking statements speak only as of the date hereof and Alpine undertakes 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,” “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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