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Immune Design Highlights G100 Preclinical Data Demonstrating Direct and Abscopal Tumor Regression, Long-Term Response and Synergy With Checkpoint Blockade

Results Highlighted in Oral Presentation at American Society of Hematology Annual Meeting

SEATTLE and SOUTH SAN FRANCISCO, Calif., Dec. 7, 2015 (GLOBE NEWSWIRE) -- Immune Design (Nasdaq:IMDZ), a clinical-stage immunotherapy company focused on oncology, today announced the presentation of data on G100 demonstrating both direct and abscopal (indirect) tumor regression, as well as tumor-specific, long-term immune protection. G100 is Immune Design's intratumoral TLR4 agonist-based product candidate and is currently in clinical trials. Results were highlighted during an oral presentation at the 57th American Society of Hematology (ASH) Annual Meeting in Orlando, Florida.

The research, authored by Ronald Levy and Idit Sagiv-Barfi of Stanford University and Hailing Lu, Jessica Hewitt, Frank Hsu and Jan ter Meulen of Immune Design, investigated the therapeutic impact and immune response of intratumoral administration of G100 in a preclinical model of lymphoma. Results demonstrated:

- tumor regression in 60-100 percent across the animal models;
- tumor growth inhibition reported in both injected tumors as well as uninjected tumors (abscopal effects);
- responders remained tumor-free at least three months post G100 treatment and were resistant to secondary challenge with the same tumor type;
- tumor-specific, systemic CD8 T cell responses were induced and shown to mediate anti-tumor protection;
- combination with immune checkpoint modulation led to enhanced tumor protection and improved survival; and
- G100 had an impact on the tumor microenvironment, changing it from a non-inflammatory state ("cold" tumor microenvironment) to an inflamed state ("hot" tumor microenvironment).

"These data demonstrate the ability of G100 to alter the tumor microenvironment and generate a systemic T-cell based anti-tumor response that is both specific and long-lasting," said Dr. Ronald Levy, Professor and Chief, Division of Oncology, Stanford University School of Medicine. "G100, either alone or in combination with immune checkpoint modulators, according to this model may hold potential as a treatment for lymphoma patients."

"These findings build on the strong set of preclinical and clinical data that support the ability of Immune Design's G100 product candidate to have an impact on the immunotherapy landscape, including in combination with other immuno-oncology approaches," said Jan ter Meulen, MD, PhD, Chief Scientific Officer at Immune Design. "These data provide support for our planned clinical trial in patients with follicular non-Hodgkin's lymphoma receiving local radiation, with or without the anti-PD-1 therapy, Keytruda, pursuant to our collaboration with Merck."

About G100

G100 is a product candidate generated from the company's GLAAS™ discovery platform, and includes a specific formulation of Glucopyranosyl Lipid A (GLA), a synthetic, toll-like receptor-4 (TLR-4) agonist. G100 is part of Immune Design's intratumoral immune activation, or 'Endogenous Antigen' approach to treating cancer, which leverages the activation of dendritic and other immune cells in the tumor microenvironment to potentially create a robust immune response against the tumor's preexisting diverse set of antigens. Preclinical and clinical data have demonstrated the ability of G100 to activate dendritic cells in tumors and to increase antigen-dependent systemic humoral and cellular Th1 immune responses.

G100 Study in Patients with Merkel Cell Carcinoma

A Phase 1 study of G100 in patients with Merkel cell carcinoma (MCC) recently completed enrollment, and Immune Design presented data at the 2015 American Society of Clinical Oncology (ASCO) Annual Meeting. In the first eight patients of the MCC study, G100 had an acceptable safety profile and resulted in an objective response rate (ORR) of 50% per protocol.

G100 Study in Patients with Follicular Non-Hodgkin's Lymphoma

A Phase 1 study evaluating intratumoral G100 in patients with follicular non-Hodgkin's lymphoma is currently enrolling patients (NCT: 02501473). The study is being updated to examine intratumoral administration of G100 with intravenous administration of KEYTRUDA® (pembrolizumab), Merck's anti-PD-1 therapy, in patients with follicular non-Hodgkin's lymphoma receiving local radiation. In addition to an evaluation of the safety of the combination, the study will assess the response in both injected and

non-injected lesions.

About Immune Design

Immune Design is a clinical-stage immunotherapy company employing next-generation *in vivo* approaches to enable the body's immune system to fight disease. The company's technologies are engineered to activate the immune system's natural ability to generate and/or expand antigen-specific cytotoxic T cells, while also enhancing other immune effectors, to fight cancer and other chronic diseases. CMB305 and G100, the primary focus of Immune Design's ongoing immuno-oncology clinical programs, are products of its two synergistic discovery platforms, ZVex™ and GLAAS™, the fundamental technologies of which were licensed from the California Institute of Technology and the Infectious Disease Research Institute (IDRI), respectively. Immune Design has offices in Seattle and South San Francisco. For more information, visit www.immunedesign.com.

Cautionary Note on Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "may," "will," "expect," "plan," "anticipate," "estimate," "intend" and similar expressions (as well as other words or expressions referencing future events, conditions or circumstances) are intended to identify forward-looking statements. These forward-looking statements are based on Immune Design's expectations and assumptions as of the date of this press release. Each of these forward-looking statements involves risks and uncertainties. Actual results may differ materially from these forward-looking statements. Forward-looking statements contained in this press release include, but are not limited to, statements about the timing of initiation, progress, scope and outcome of clinical trials for Immune Design's product candidates and the reporting of clinical data regarding Immune Design's product candidates. Many factors may cause differences between current expectations and actual results including unexpected safety or efficacy data observed during preclinical or clinical studies, clinical trial site activation or enrollment rates that are lower than expected, changes in expected or existing competition, changes in the regulatory environment, failure of Immune Design's collaborators to support or advance collaborations or product candidates and unexpected litigation or other disputes. Other factors that may cause Immune Design's actual results to differ from those expressed or implied in the forward-looking statements in this press release are discussed in Immune Design's filings with the U.S. Securities and Exchange Commission, including the "Risk Factors" sections contained therein. Except as required by law, Immune Design assumes no obligation to update any forward-looking statements contained herein to reflect any change in expectations, even as new information becomes available.

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