## Immune Pharmaceuticals Expands its Bertilimumab Phase II Clinical Trial In Bullous Pemphigoid to Six Academic Institutions in the United States

New York, June 14, 2016 /PRNewswire/ -- Immune Pharmaceuticals Inc. (NASDAQ: IMNP), a biopharmaceutical company focused on the development of targeted therapeutics for the treatment of inflammatory diseases and cancer, announced today that it is expanding its Phase II study for the use of bertilimumab in bullous pemphigoid (BP) to six academic clinical sites in the United States over the next several months. Immune has opened a US IND and has received IRB approval from several sites for the intravenous use of bertilimumab, its anti-eotaxin monoclonal antibody, for the treatment of BP, an orphan inflammatory autoimmune disease manifest by blistering of the skin typically in older adults. The additional sites include University Hospitals Cleveland Medical Center, Mount Sinai in New York, Duke University, University of Iowa, the University at Buffalo and the University of Utah. This study has already started enrolling patients in Israel earlier this year.

The overall incidence of BP is increasing with the aging of the population. There are currently approximately 60,000 BP patients in Europe and the US. High dose oral corticosteroids, such as prednisone dosed at 1 mg/kg/day, have been considered the mainstay of treatment for many years. Such high corticosteroid doses can lead to significant adverse events and have been linked to an increase in mortality. Immunosuppressants are poorly tolerated in elderly BP patients, have failed to demonstrate a corticosteroid-sparing effect, and have revealed a higher rate of treatment-related side effects in patients receiving combined treatment compared with those treated with corticosteroid alone. There is therefore a significant need for novel and efficacious treatments.

Bertilimumab is Immune's first-in-class anti-eotaxin-1 monoclonal antibody. Eotaxin-1 is thought to be a key driver of BP and is an eosinophil-specific chemokine, which plays a role in both innate and adaptive immune responses and modulates the cross-talk between key cells involved in inflammation. Such personalized therapy aimed at a primary driver of disease process may optimize the safety-to-efficacy ratio in this population by mitigating off-target effects of broad based non-selective immunomodulators.

"It is very exciting to offer this unique targeted therapy to patients with bullous pemphigoid in the United States," said Dr. Neil Korman, MD, PhD, who is a scientific advisor for Immune's BP program, and is Professor of Dermatology at Case Western University. "Bertilimumab has the potential to significantly reduce the risk of prolonged use of high-dose steroids, which many of these patients currently rely on to manage their disease," he added.

Bertilimumab would provide an immunomodulatory treatment directed at a specific inflammatory pathway, with an anticipated safety profile advantage due to the selective nature of the treatment. Such precision therapies are designed to provide an optimized safety-to-efficacy ratio by selecting patients with higher response rates based on association of the disease with specific biomarkers. The results of this ongoing Phase II study will serve to inform further development in patients with BP.

## **About Immune Pharmaceuticals Inc.:**

Immune Pharmaceuticals Inc. (NASDAQ: IMNP) applies a personalized approach to treating and developing novel, highly targeted antibody therapeutics to improve the lives of patients with inflammatory diseases and cancer. Immune's lead product candidate, bertilimumab, is in Phase II clinical development for moderate-to-severe ulcerative colitis as well as for bullous pemphigoid, an orphan autoimmune dermatological condition. Other indications being considered for development include atopic dermatitis, Crohn's disease, severe asthma and NASH (Non-Alcoholic Steato-Hepatitis, an inflammatory liver disease). Immune recently expanded its portfolio in immuno-dermatology with topical nano-formulated

cyclosporine-A for the treatment of psoriasis and atopic dermatitis. Immune's oncology pipeline includes Ceplene, approved in Europe and Israel for maintenance remission in AML in combination with IL-2, Azixa and crolibulin, both of which are Phase II-ready vascular disrupting agents, and novel technology platforms; bispecific antibodies and targeted nanotherapeutics, NanomAbs. Immune's additional pipeline includes AmiKet Nano™, a late clinical stage drug candidate for the treatment of neuropathic pain. For more information, visit Immune's website at <a href="www.immunepharmaceuticals.com">www.immunepharmaceuticals.com</a>, the content of which is not a part of this press release.

## **Forward-Looking Statements**

This news release and any oral statements made with respect to the information contained in this news release contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. You are urged to consider statements that include the words "may," "will," "would," "could," "should," "believes," "estimates," "projects," "potential," "expects," "plans," "anticipates," "intends," "continues," "forecast," "designed," "goal" or the negative of those words or other comparable words to be uncertain and forward-looking. Such forward-looking statements include statements that express plans, anticipation, intent, contingency, goals, targets, future development and are otherwise not statements of historical fact. These statements are based on our current expectations and are subject to risks and uncertainties that could cause actual results or developments to be materially different from historical results or from any future results expressed or implied by such forward-looking statements. Factors that may cause actual results or developments to differ materially include, but not limited to: the risks associated with the adequacy of our existing cash resources and our ability to continue as a going concern; the risks associated with our ability to continue to meet our obligations under our existing debt agreements; the risk that clinical trials for bertilimumab or AmiKet will not be successful; the risk that bertilimumab, AmiKet or compounds arising from our NanomAbs program will not receive regulatory approval or achieve significant commercial success; the risk that we will not be able to find a partner to help conduct the Phase III trials for AmiKet on attractive terms, on a timely basis or at all; the risk that our other product candidates that appeared promising in early research and clinical trials do not demonstrate safety and/or efficacy in larger-scale or later-stage clinical trials; the risk that we will not obtain approval to market any of our product candidates; the risks associated with dependence upon key personnel; the risks associated with reliance on collaborative partners and others for further clinical trials, development, manufacturing and commercialization of our product candidates; the cost, delays and uncertainties associated with our scientific research, product development, clinical trials and regulatory approval process; our history of operating losses since our inception; the highly competitive nature of our business; risks associated with litigation; and risks associated with our ability to protect our intellectual property. These factors and other material risks are more fully discussed in our periodic reports, including our reports on Forms 8-K and 10-Q and our annual report on Form 10-K for the year ended December 31, 2015 and other filings with the U.S. Securities and Exchange Commission. You are urged to carefully review and consider the disclosures found in our filings, which are available at www.sec.gov or at www.immunepharmaceuticals.com. You are cautioned not to place undue reliance on any forward-looking statements, any of which could turn out to be wrong due to inaccurate assumptions, unknown risks or uncertainties or other risk factors. We expressly disclaim any obligation to publicly update any forward looking statements contained herein, whether as a result of new information, future events or otherwise, except as required by law.

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For further information: Danielle Shapira, Manager, Strategic Planning, Immune Pharmaceuticals Inc., 646.440.9327, danielle.shapira@immunepharma.com.