ASX/Media Release

Immutep Announces First Participant Dosed in Phase I Study of IMP761, a First in Class Agonist LAG-3 Antibody

- *IMP761 is designed to enhance the "brake" function of LAG-3 on T cells to restore balance to the immune system and address the underlying cause of many autoimmune diseases*
- *Safety data from this first-in-human study anticipated by year-end and pharmacokinetics and pharmacodynamics data in first half CY2025*

SYDNEY, AUSTRALIA – 14 August 2024 – Immutep Limited (ASX: IMM; NASDAQ: IMMP) ("Immutep" or "the Company"), a clinical-stage biotechnology company developing novel LAG-3 immunotherapies for cancer and autoimmune disease, today announces that the first participant has been successfully dosed in the first-in-human Phase I trial of IMP761. This first-in-class agonist LAG-3 antibody is designed to restore balance to the immune system by enhancing the "brake" function of LAG-3 to silence dysregulated self-antigen-specific memory T cells that cause many autoimmune diseases.

The single and multiple ascending dose, placebo-controlled, double-blind Phase I study is being conducted by the Centre for Human Drug Research (CHDR), a world-class institute in Leiden, the Netherlands, specializing in cutting-edge early-stage clinical drug research. The study aims to enrol 49 healthy volunteers, to assess safety, pharmacokinetics (PK) and pharmacodynamics (PD).

CHDR will implement its unique keyhole limpet haemocyanin (KLH) challenge model allowing for the evaluation of IMP761's pharmacodynamic activity at the earliest stages of clinical development. Immutep anticipates the first safety data from the Phase I study to be available before end of the year with assessment of PK/PD relationships to follow in the first half of CY2025.

The immune checkpoint LAG-3 has been identified as a promising target for agonist LAG-3 immunotherapy to treat rheumatoid arthritis, Type 1 diabetes, and multiple sclerosis, among other autoimmune diseases.[1,2,3] In preclinical studies, IMP761 has led to a large decrease in inflammatory cytokines and demonstrated its effectiveness in suppressing antigen-specific T cell–mediated immune responses.[4,5]

About IMP761

IMP761, a first-in-class immunosuppressive LAG-3 agonist antibody, has the potential to address the root cause of many autoimmune diseases by specifically silencing autoimmune memory T cells that accumulate at disease sites and restoring balance to the immune system. As published in the Journal of Immunology, encouraging pre-clinical *in vivo* and *in vitro* studies show IMP761 inhibits peptide-induced T cell proliferation, activation of human primary T cells, and an antigen-specific delayed-type hypersensitivity (DTH) reaction. Additional preclinical data in oligoarticular juvenile idiopathic arthritis (o-JIA) published in Pediatric Research details how IMP761 led to a decrease in a broad spectrum of effector cytokines in just 48 hours. This study also showed children with o-JIA have a skewed LAG-3 metabolism and suggested they can benefit from agonistic LAG-3 activity.

About Immutep

Immutep is a clinical-stage biotechnology company developing novel LAG-3 immunotherapy for cancer and autoimmune disease. We are pioneers in the understanding and advancement of therapeutics related to Lymphocyte Activation Gene-3 (LAG-3), and our diversified product portfolio harnesses its unique ability to stimulate or suppress the immune response. Immutep is dedicated to leveraging its expertise to bring innovative treatment options to patients in need and to maximise value for shareholders. For more information, please visit www.immutep.com.

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