ASX/Media Release

Immutep reports positive Overall Response Rate in its Phase II clinical trial in 1st line NSCLC for PD-L1 all-comers

- TACTI-002 has met its primary objective for 1st line non-small cell lung cancer (NSCLC) patients in a PD-L1 all-comer Phase II clinical trial conducted in collaboration with MSD (N=114)
- Combination of efti plus pembrolizumab shows favourable anti-tumour activity:
  - Improved Overall Response Rate (ORR) by local read of 38.6% (intent to treat, 44/114 patients) and 42.7% (evaluable patients, 44/103) compared with data reported at ASCO 2021 (N=36)
- Encouraging responses observed in all PD-L1 status groups, including those patients with PD-L1 negative (TPS < 1%) and PD-L1 low (TPS 1-49%) expressing tumours who are less likely to respond to anti-PD-1 monotherapy
- Other secondary endpoints including Disease Control Rate (DCR) and interim median Progression Free Survival (PFS) continue to demonstrate improvement across all PD-L1 expression levels
- Safe and well tolerated, with a safety profile that is consistent with that observed in previously reported studies for pembrolizumab monotherapy
- Results support continued late stage clinical development of efti

SYDNEY, AUSTRALIA – 6 June 2022 – Immutep Limited (ASX: IMM; NASDAQ: IMMP) ("Immutep" or "the Company"), a biotechnology company developing novel LAG-3 related immunotherapy treatments for cancer and autoimmune disease, announces new data from 1st line NSCLC patients (Part A) of the Phase II TACTI-002 trial evaluating Immutep's lead product candidate, eftilagimod alpha ("efti" or "IMP321") in combination with MSD's anti-PD-1 therapy KEYTRUDA® (pembrolizumab) in 114 patients.

The data was presented in an Oral Presentation at the American Society of Clinical Oncology's (ASCO) 2022 Annual Meeting.

TACTI-002 Principal Investigator, Dr Enriqueta Felip of Vall d'Hebron University Hospital Barcelona, Spain, said: "It is very encouraging to see the combination of efti plus pembrolizumab is showing favourable anti-tumour activity in patients with 1st line NSCLC. These responses were deep and durable and there has also been a low patient discontinuation rate. I believe the combination of efti plus pembrolizumab warrants late stage clinical investigation."

Immutep CSO and CMO, Dr Frederic Triebel, noted: "Our ORR by local read of 38.6% in 1st line NSCLC patients is comparing favourably to historical results from anti-PD-1 monotherapies where response rates in PD-L1 all-comer trials are typically around 20%. We are particularly pleased to see encouraging responses across all PD-L1 status groups, showing that efti may kick start an anti-tumour immune response even in patients with no or low PD-L1 expression. In addition, the combination of efti plus pembrolizumab has a safety profile consistent with that observed in previously reported studies for pembrolizumab monotherapy. We continue to believe that efti, with its unique mechanism of action, may ultimately provide a very meaningful benefit to diverse sets of cancer patients including those with more limited treatment options."

Immutep CEO Marc Voigt said: "We are delighted that patient outcomes are improved with the combination of efti plus pembrolizumab across different patient groups. The data is encouraging for patients, as there is an unmet medical need particularly for those with NSCLC with no or low PD-L1 expression. We enlarged this part of the study in order to see if the strong earlier results in a smaller group of patients are holding true in more than a hundred patients. By biotech standards, we consider this to be a large patient population for a Phase II trial."

"For Immutep, these highly favourable results are of strategic importance, as they support late stage development for an attractive and very large adressible market," he said.

Trial endpoints

The primary endpoint was ORR according to iRECIST and local read. The data announced today represents the primary analysis of mature data of this endpoint. Secondary endpoints include ORR by RECIST 1.1., DCR, Duration of Response (DoR), PFS, Overall Survival (OS), and Safety assessments.

Patient population and condition

A total of 114 patients with 1st line NSCLC were enrolled and treated with efti plus pembrolizumab in 6 countries across 19 trial sites throughout Europe, the United States, and Australia.

Importantly, the patients were enrolled without any selection for PD-L1 status (PD-L1 all-comers), a biomarker indicating the likelihood of response to pembrolizumab. The trial was confirmed as a "PD-L1 all-comer trial" with ~70% of patients having a Tumour Progression Score (TPS) of < 50%. 93% of patients had metastatic disease at study entry and the patients had an ECOG performance status of 0 (37.7%) or 1 (62.3%). Treatment prior to study start included radiotherapy (33%), surgery (20%) and systemic therapy (22%) for non-metastatic disease. The trial reflects a typical patient population for this indication, including a mix of squamous/non-squamous disease and male/female representation.

Key Findings from 1st line NSCLC patients in TACTI-002 *– data cut-off date 15 April 2022*

Primary analysis of primary endpoint by iRECIST – ORR

- ORR of 38.6% in the intent to treat (ITT) group (44/114 patients) and 42.7% for evaluable patients (44/103) by local read, see *Table 1*
- Responses across all PD-L1 status groups in this all-comer trial (by central lab assessment):
  - ORR of 28.1% (9/32) in PD-L1 negative patients
  - ORR of 41.7% (15/36) in patients with PD-L1 status of 1-49%
  - ORR of 45.5% (25/55) in patients with PD-L1 status of ≥ 1%
  - ORR of 52.6% (10/19) in patients with PD-L1 status of ≥ 50%
- Comparable ORR in squamous (35%) or non-squamous (38.9%) tumour type
- RECIST 1.1 results are comparable to the iRECIST results
- ORR is favourable compared to historical trials of anti-PD-1 monotherapy for all-comer population and PD-L1 status groups[1]

[1] See, for example, KN-001 and KN-042 trials with pembrolizumab monotherapy reporting a ORR of 19.4% in the all-comer population and 27.3% in the PD-L1 ≥ 1% population:
Leighl et al, The Lancet 2019, http://dx.doi.org/10.1016/S2213-2600(18)30500-9
Mok et al, The Lancet 2019, http://dx.doi.org/10.1016/S0140-6736(18)32409-7

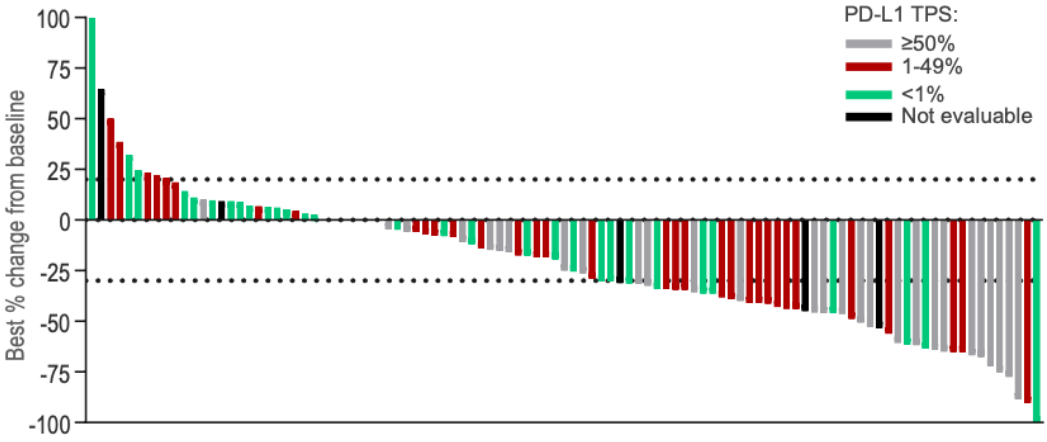
Table 1 – Primary endpoint (ORR) results for 1st line NSCLC patients from TACTI-002

Tumour Response[2] (data cut-off 15 April 2022)	**Part A 1st line NSCLC (N=114)**	
ORR as per iRECIST by local read (primary endpoint)	**n (%)**	[95% confidence interval][3]
ORR (ITT, N=114)	44 (38.6%)	[29.6-48.2]
ORR (evaluable patients, N=103)	44 (42.7%)	[33.0-52.9]

Analysis by iRECIST – DCR, DoR and PFS

- Responses are deep, see *Chart 1*
- Responses are also durable, with only 8.6% of confirmed responses having a progression ≤ 6 months and median DoR not yet reached
- Interim median PFS (ITT, PD-L1 all-comers) is 6.9 months
- Interim median PFS increases to 8.4 months for ≥ 1% PD-L1 status group and to 11.8 months for ≥ 50% PD-L1 status group. Remains favourable compared to historical trials of anti-PD-1 monotherapy[4]
- DCR (ITT) of 73.7% (84/114) and 81.6% (84/103) for evaluable patients
- DCR comparable across all PD-L1 status groups with a range of 68.8-79.0%

Chart 1 – Change in lesion size from baseline for 1st line NSCLC patients from TACTI-002



Safety

The combination of efti plus pembrolizumab is safe and well-tolerated, continuing efti's good safety profile to date. Part A reports a low discontinuation rate, with only 9.6% of patients discontinuing due to study

[2] Local investigator evaluation.
[3] 95% CIs calculated using Clopper-Pearson test.
[4] See, for example, KN-042:
Mok et al, The Lancet 2019, http://dx.doi.org/10.1016/S0140-6736(18)32409-7

treatment related adverse events. The safety profile to date is consistent with that observed in previously reported studies for pembrolizumab monotherapy except for local injection site reactions (erythema).

Conclusion

The combination of efti plus pembrolizumab is showing favourable efficacy in 1st line NSCLC in the PD-L1 all-comer population and in all PD-L1 status groups, and with a low treatment discontinuation rate. The data support continued late stage development in this indication.

Webcast Details

The Company will host a global webcast to discuss the new data from 1st line NSCLC patients participating in its Phase II TACTI-002 trial including an analyst Q&A.

Date & Time:	8.00 am AEST (Sydney) Tuesday 7 June 2022 / 5.00 pm CDT (Chicago) Monday 6 June 2022 / 12.00 am midnight CEST (Berlin) Tuesday 7 June 2022
Speakers:	Immutep CEO Marc Voigt, CMO/CSO Dr Frederic Triebel and Christian Mueller, Vice President Strategic Development
Register:	https://us02web.zoom.us/webinar/register/3616539572927/WN_fAVtcc30SXuBz-kBxfF86g
Questions:	Investors are invited to submit questions in advance via immutep@citadelmagnus.com.

A replay of the webcast will be available after the event at www.immutep.com.

Next results

Immutep expects to report further results from TACTI-002 in H2 calendar year 2022.

About the TACTI-002 Trial

TACTI-002 (Two ACTive Immunotherapies) is being conducted in collaboration with Merck & Co., Inc., Rahway, NJ, USA (known as "MSD" outside the United States and Canada). The study is evaluating the combination of eftilagimod alpha (efti) with MSD's anti-PD-1 therapy KEYTRUDA® (pembrolizumab) in patients with second line head and neck squamous cell carcinoma or non-small cell lung cancer in first and second line.

The trial is a Phase II, Simon's two-stage, non-comparative, open-label, single-arm, multicentre clinical study that is taking place in study centres across Australia, Europe, and the US.

Patients participate in one of the following:

- Part A - first line Non-Small Cell Lung Cancer (NSCLC), PD-X naïve
- Part B - second line NSCLC, PD-X refractory
- Part C - second line Head and Neck Squamous Cell Carcinoma (HNSCC), PD-X naïve

TACTI-002 is an all-comer study in terms of PD-L1 status, a well-known predictive marker for response to pembrolizumab monotherapy especially in NSCLC and HNSCC.

More information about the trial can be found on Immutep's website or on ClinicalTrials.gov (Identifier: NCT03625323).

About Immutep
Immutep is a globally active biotechnology company that is a leader in the development of LAG-3 related immunotherapeutic products for the treatment of cancer and autoimmune disease. Immutep is dedicated to leveraging its technology and expertise to bring innovative treatment options to market for patients and to maximize value to shareholders.

Immutep's current lead product candidate is eftilagimod alpha ("efti" or "IMP321"), a soluble LAG-3 fusion protein (LAG-3Ig), which is a first-in-class antigen presenting cell (APC) activator being explored in cancer and infectious disease. Immutep is also developing an agonist of LAG-3 (IMP761) for autoimmune disease.

Additional LAG-3 products, including antibodies for immune response modulation, are being developed by Immutep's large pharmaceutical partners.

Immutep is listed on the Australian Securities Exchange (IMM), and on the NASDAQ (IMMP) in the United States.

Further information can be found on the Company's website www.immutep.com or by contacting:

Australian Investors/Media:
Catherine Strong, Citadel-MAGNUS
+61 (0)406 759 268; cstrong@citadelmagnus.com

U.S. Media:
Tim McCarthy, LifeSci Advisors
+1 (212) 915.2564; tim@lifesciadvisors.com

This announcement was authorised for release by the Board of Immutep Limited.