

### **Biotechnology**

IMMP - NASDAQ	July 2, 2018
Closing Price 06/29/2018 Rating: 12-Month Target Price: 52-Week Range: Market Cap (M): Shares O/S (M): Float: Avg. Daily Volume (000): Debt (M): Dividend: Dividend Yield: Risk Profile: Fiscal Year End:	\$2.38 Buy \$7.00 \$1.25 - \$3.06 72 30.3 100.0% 80 \$6.2 \$0.00 0.00% Speculative

	Total	Expenses ('0	00)	
	2017A	2018E	2019E	
H1	3,716	7,440A	6,864	
H2	6,917	6,877	7,436	
FY	10,633	14,317	14,300	_



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### **Immutep Limited**

Buy

# First IND Filed in US for IMP321 (eftilagimod), Phase 2 Study with Keytruda 2H18

#### Summary

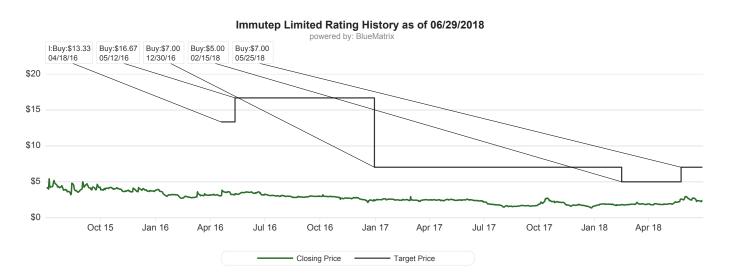
- Immutep announced that the company has submitted its first investigational new drug (IND) application in the US for eftilagimod (IMP321, efti), a soluble fusion protein of the checkpoint LAG-3. The P2 study will evaluate efti + Keytruda (collaboration with Merck, {MRK - NR}) in both lung and head & neck (H&N) cancers. The study should initiate in 2H18, initial data readout 2019.
- The P2 study (TACTI-002) will enroll up to N=120 in 15 centers across the US, EU and Australia. Patients will receive the combination therapy of efti at the 30mg dose + Keytruda.
- The combination of efti + Keytruda is also being evaluated in the ongoing P1 study (TACTI-mel) in patients with unresectable or metastatic melanoma that have had poor responses or disease progression on Keytruda monotherapy. In that study so far the overall response rate is 61% (11/18), including two complete responses. The data are suggestive that efti, as an immune activator, is enhancing the immune response to otherwise "cold tumors". The expectation, in our view, given the utility of checkpoints in lung and H&N cancer, is that efti will likewise induce increased immune activity that should be synergistic with Keytruda.
- Conclusion. Filing the first IND in the US is a positive for Immutep as the company continues to advance efti in melanoma, breast cancer and now both lung and H&N cancer. Data updates are expected as we move through the second half of 2018 and into 2019 which if positive should represent catalysts for the stock.

#### **Details**

IMP321, eftilagimod - it's all about the monocytes. What makes efti unique is that it's not blocking or depleting LAG-3 antibody; it's a soluble fragment fusion protein that stimulates the immune response, particularly important are the monocytes. It's been shown that when the level of monocytes is >19%, then survival is higher and longer. Efti induces monocyte levels well above the 19% threshold, >30% by six months. The increase in monocytes is likely why the combination with Keytruda, so far, has demonstrated high ORR and PFS in patients that are poor/failed responders to Keytruda monotherapy. What makes this study unique is that the patients are given Keytruda for three cycles and then evaluated for any response, thus any response after efti is added suggests a therapeutic signal. A second program, a basket study (TACTI-002 in lung cancer, H&N cancer) evaluating the combination in PD-X naïve or refractory patients is expected to start in 4Q18. The first US IND was filed July 1, 2018. The study will evaluate the combination of efti + Keytruda for 12 months using the 30mg dose of efti. Don't forget about breast cancer. The P2b registration study (N=226, efti + paclitaxel, AIPAC study) is enrolling with data expected in 2019. The primary endpoint of the study is PFS.

AIPAC (Active Immunotherapy PAClitaxel): This is a randomized, double-blind, placebo-controlled Phase 2b registration study (N=226) of IMP321 (or "efti") as an adjuvant therapy in combination with frontline paclitaxel therapy in metastatic breast cancer. Progression-free survival (PFS) is the primary endpoint. In the first phase, 15 patients (n=6 at 6mg; n=9 at 30mg) were evaluated primarily for safety. IMP321 was safe and well-tolerated at both dosage levels, where 47% overall response rate (ORR) and 87% disease control rate (DCR) seen with the combination in the run-in phase of the study. ORR is consistent with historical data for Avastin with paclitaxel (48.9%) in metastatic breast cancer. The second phase of the trial entails randomization of 226 patients. Data is expected 1H19.

#### **DISCLOSURES**



Maxim Group LLC Ratings Distribution			As of: 07/01/18
		% of Coverage Universe with Rating	% of Rating for which Firm Provided Banking Services in the Last 12 months
Buy	Fundamental metrics and/or identifiable catalysts exist such that we expect the stock to outperform its relevant index over the next 12 months.	81%	35%
Hold	Fundamental metrics are currently at, or approaching, industry averages. Therefore, we expect this stock to neither outperform nor underperform its relevant index over the next 12 months.	18%	17%
Sell	Fundamental metrics and/or identifiable catalysts exist such that we expect the stock to underperform its relevant index over the next 12 months.	2%	33%
	*See valuation section for company specific relevant indices		

I, Jason McCarthy, Ph.D., attest that the views expressed in this research report accurately reflect my personal views about the subject security and issuer. Furthermore, no part of my compensation was, is, or will be directly or indirectly related to the specific recommendation or views expressed in this research report.

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**IMMP:** For Immutep, we use the BTK (Biotechnology Index) as the relevant index.

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I, Caroline Palomeque, attest that the views expressed in this research report accurately reflect my personal views about the subject security and issuer. Furthermore, no part of my compensation was, is, or will be directly or indirectly related to the specific recommendation or views expressed in this research report.

#### **Valuation Methods**

**IMMP:** Our therapeutic model assumes a royalty structure for each LAG-3 product, initially with IMP701 and IMP731 in 2020 and followed by IMP321 in 2023 (breast cancer). Our models assume risk adjustments for each product based on the stage(s) of development. Our therapeutic models assume a risk adjustment. We then apply a 30% discount to our free-cash-flow, discounted EPS, and sum-of-the-parts models, which are equally weighted to derive a price target.

#### **Price Target and Investment Risks**

**IMMP:** Aside from general market and other economic risks, risks particular to our price target and rating for Immutep include: (1) Development— To date, LAG-3 checkpoint modulators have not been approved; (2) Regulatory—The company's ongoing and future studies may not be sufficient to gain approval; (3) Commercial—The company lacks commercial infrastructure to support a launch if approved; (4) Financial—The company is not yet profitable and may need to raise additional capital to fund operations; (5) Collaborative—The company has ongoing collaborations with large pharmaceutical companies who could back out of the partnerships, setting back development on product lines and increasing costs; (6) High volatility of the company's stock price.

#### **RISK RATINGS**

Risk ratings take into account both fundamental criteria and price volatility.

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**Medium** – <u>Fundamental Criteria:</u> This is a risk rating assigned to companies that may have average revenue and earnings visibility, positive cash flow, and is fairly liquid. Accordingly, both price volatility and fundamental risk are expected to approximate the industry average.

**Low** – <u>Fundamental Criteria:</u> This is a risk rating assigned to companies that may have above-average revenue and earnings visibility, positive cash flow, and is fairly liquid. Accordingly, both price volatility and fundamental risk are expected to be below the industry.

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