

The global leader in developing LAG-3 therapeutics

Cowen - 42nd Annual Health Care Conference
Corporate Presentation
March 2022

(ASX: IMM, NASDAQ: IMMP)

Notice: Forward-Looking Statements



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This presentation was authorised for release by the CEO, Marc Voigt.

Overview



Addressing major markets

Immutep's clinical program is seeking to address multi-billion dollar markets with different clinical trials underway

Compelling data points

Doubling the response rate of Merck blockbuster drug Keytruda in 1st line NSCLC and 2nd line HNSCC (TACTI-002 trial)



Partnering deals executed with industry leaders

















Leadership in LAG-3 & Towards registration

with 4 product candidates in immunooncology and autoimmune disease & TACTI-003 trial recruiting





LAG-3 Pioneer: French immunologist Prof Frédéric Triebel, Immutep CMO & CSO



LAG-3 is the most promising new immune checkpoint





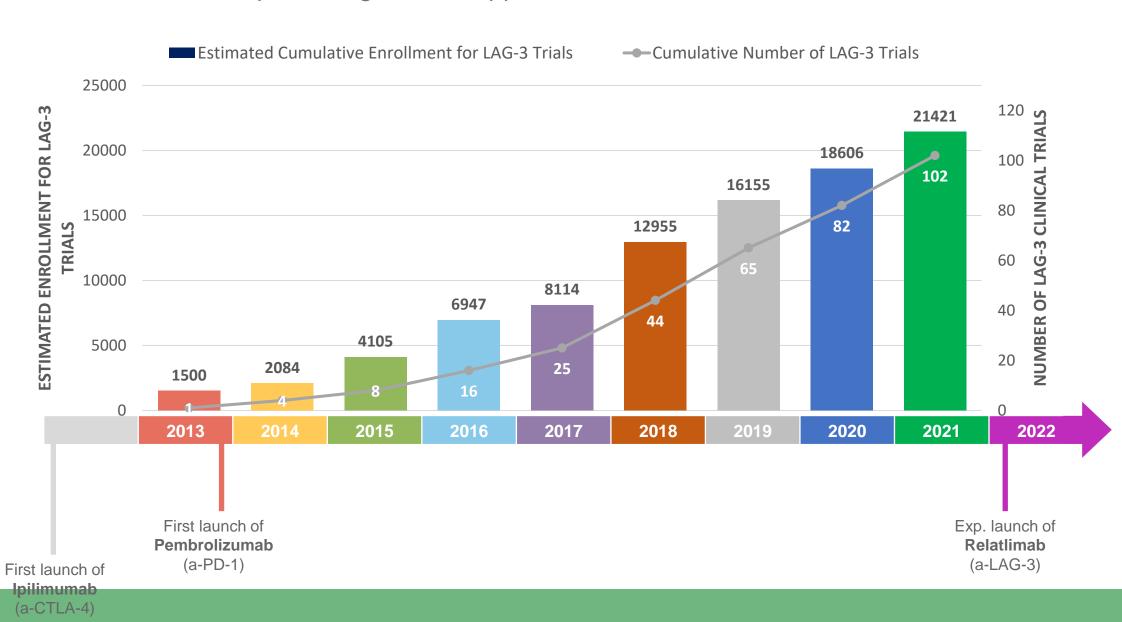
LAG-3 Overview

- A validated immune checkpoint -

Acceleration In The LAG-3 Space



The Next Checkpoint Target to Be Approved



Notes:

Source: GlobalData, Dec 2021

LAG-3 Therapeutic Landscape Overview



		Company	Program	Preclinical	Phase I	Phase II	Phase III	Total Trials	Patients
	Agonist	immutep®	Eftilagimod Alpha ⁽⁵⁾		10	4		14	967
		BMS	Relatlimab ⁽⁶⁾		7	33	2	42	9,617
		Merck & Co. Inc.	Favezelimab		1	5	1	7	1498
		U NOVARTIS	Ieramilimab		1	4		5	952
		Macrogenics	Tebotelimab		3	3		6	1422
£		H-L Roche	RO7247669		1	3		4	722
Oncology	स्र	B.I.	Miptenalimab		4	1		5	649
O	Antagonist	Regeneron ⁽¹⁾	Fianlimab		1	1		2	836
		Innovent	IBI110		1	1		2	328
		Tesaro ⁽³⁾	TSR-033		1	1		2	139
		Incyte	INCAGN02385		1	1		2	74
		Symphogen ⁽²⁾	SYM022		3			3	169
		F-star	FS-118		2			2	102
		Xencor	Pavunalimab		1			1	242
Autoimmune	Agonist	immutep [©]	IMP761						
	Depleting AB	gsk (4)	GSK2831781 (IMP731)		2	1		3	207

Sources: GlobalData, Company websites, clinicaltrials.gov, and sec.gov, as of 14th December **2021**. The green bars above represent programs conducted by Immutep &/or its partners. Total trials includes all active, completed &/or inactive trials. Patient totals are based on estimated total enrolled &/or to be enrolled. Not a complete list of currently existing LAG-3 products.

¹⁾ As of January 7, 2019 Regeneron is in full control of program and continuing development

⁽https://www.sec.gov/Archives/edgar/data/872589/000110465919000977/a19-1325_18k.htm)

²⁾ On 3 Apr. 2020 Les Laboratoires Servier acquired Symphogen

³⁾ Tesaro was acquired by and is now part of GSK (www.gsk.com/en-gb/media/press-releases/gsk-completes-acquisition-of-tesaro-an-oncology-focused-biopharmaceutical-company/)

⁴⁾ Includes two completed Phase I studies and one discontinued Phase 2 stu

⁵⁾ Including IITs, one planned trials (MBC trial by EOC)

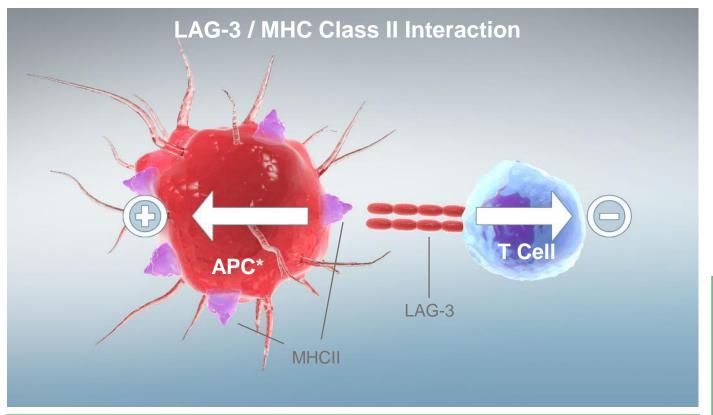
⁶⁾ RELATIVITY-047 (https://investors.bms.com/iframes/press-releases/press-release-details/2021/Bristol-Myers-Squibb-Announces-RELATIVITY-047-a-Trial-Evaluating-Anti-LAG-3-Antibody-Relatlimab-and-Opdivo-nivolumab-in-Patients-with-Previously-Untreated-Metastatic-or-Unresectable-Melanoma-Meets-Primary-Endpoint-of-Progression-Free-Survival/default.aspx)

MHC II / LAG-3 interaction is clinically validated as a therapeutic target



LAG-3, an immune checkpoint, is widely expressed on tumor infiltrating lymphocytes (TILs) and cytotoxic T cells, and interacts with MHC class II molecules on antigen presenting cells (APCs)

→ Prime target for immune therapy



Positive regulation of antigen presenting cells (APCs) via MHC II transferred activating signals → increase in antigen presentation to cytotoxic CD8+T cells

Negative regulation of LAG-3+ T Cells



- Relatlimab + 15 more products in clinical development
- Clinical validation at ASCO/ESMO 2021 (RELATIVITY-047: relatlimab + nivolumab in melanoma)
- PDUFA target action date is March 19, 2021*

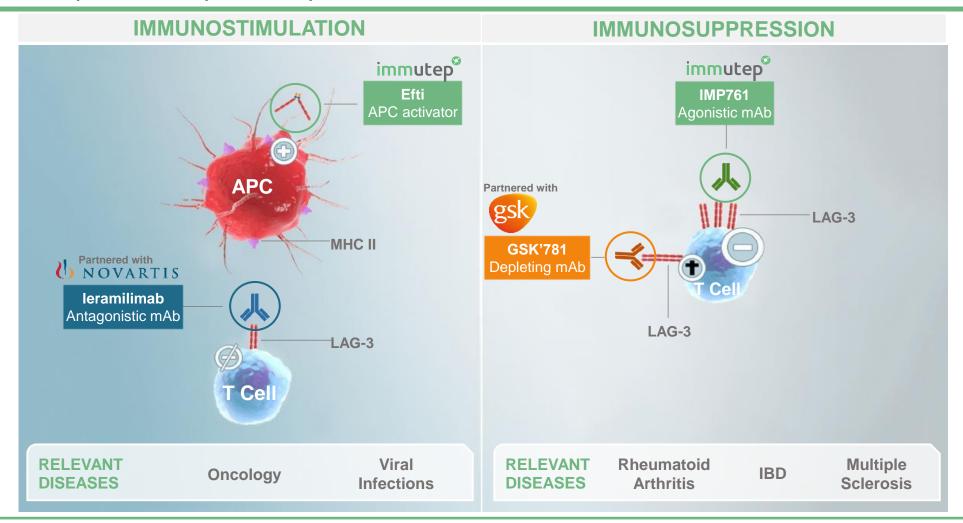
MHC II (APC) / LAG-3 (T cell) interaction is important for tumor immunology

This APC / T cell interaction is now a validated target since ASCO 2021 → 3rd validated checkpoint in immunooncology

Targeting LAG-3 / MHC II:



Immutep has multiple therapeutics in numerous diseases



- ✓ Immutep is the only company with four LAG-3 related compounds, each with a different mechanism of action for treatment of numerous diseases
- ✓ Two major partnerships with pharma and two products under own development.

Immutep's LAG-3 Trial Pipeline*



	Program	Preclinical	Phase I	Phase II	Late Stage ⁽⁵⁾	Commercial Rights	Market Size ⁽⁶⁾
		Metastatic Breast Cancer (C	hemo – IO)				US\$29.9 billion
		Head and Neck Squamous (Cell Carcinoma (IO – IO) ^(1b)		MSD INVENTING FOR LIFE		US\$1.9 billion
		Head and Neck Squamous (TACTI-002	Cell Carcinoma (IO – IO) ⁽¹⁾		MSD INVENTING FOR LIFE		Holling E.T&CO
	Eftilagimod Alpha	Non-Small-Cell Lung Carcin TACTI-002	oma (IO – IO) ⁽¹⁾		MSD INVENTING FOR LIFE		US\$22.6 billion
Oncology	(efti or IMP321) APC activating	Solid Tumors (IO – IO) (2), (3a INSIGHT-004		Pfizer Merck KGaA, Darmstadt, Germany		Global Rights	
0	soluble LAG-3 protein	Solid Tumors (IO – IO) (2), (3b INSIGHT-005		Merck KGaA, Darmstadt, Germany	(§)	immutep [®]	
		Solid Tumors (IO – IO – cho INSIGHT-003	emo) ⁽²⁾				
ı		Solid Tumors (Cancer Vacci YNP01 / YCP02 / CRESCEN	ne) ^(4a) IT 1	CYTLIMIC Cytotodic T.Lymphocyte Immunotihicrapy In Cancer			
ı		Metastatic Breast Cancer (C	hemo – IO) ^(4b)	•	FEDE S	Chinese Rights	US\$2.3 billion
Inf. Dis.	Efti	COVID-19 disease (Monothe	erapy) ⁽⁷⁾		§)	Global Rights(8) immutep	
Autoimm.	IMP761 (Agonist AB)					Global Rights	US\$149.4 billion (2025)
Notes					(§)	tead (MESSATHERAL) ■	

- INSIGHT Investigator Initiated Trial ("IIT") is controlled by lead investigator and therefore Immutep has no control over this (6) GlobalData Market Size forecast for US, JP, EU5, Urban China and Australia; KBV Research:
- (5) Late stage refers to Phase IIb clinical trials or more clinically advanced clinical trials
 - https://www.kbvresearch.com/autoimmune-disease-therapeutics-market/)
 IIT conducted by University Hospital Pilsen. Immutep has no control over this trial.

Immutep Out-Licensed Immunotherapy Pipeline*





- Discontinued in Jan 2021



Eftilagimod Alpha

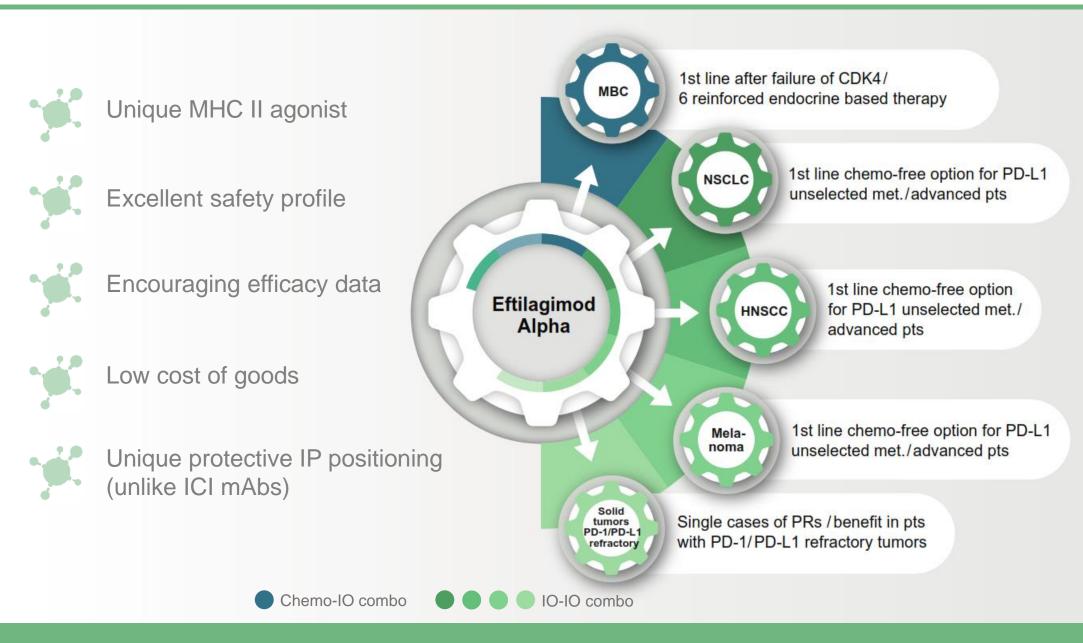
- Bringing APC Activation into Oncology -

Eftilagimod alpha ~ Efti ~ IMP321

Efti: Potential Pipeline in a Product

Potential for use in various combination settings





Efti's Clinical Potential



AIPAC - Efti + Chemo Phase IIb in MBC Randomized, placebo controlled. OS presented in Nov 2021. INSIGHT-004 - Efti + Avelumab Phase I in Solid Tumors Merck KGaA, 5/12 (41.6%) patients with partial responses in ICI insensitive indications Final data presented in 2021 TACTI-mel - Efti + Pembro Phase I in Melanoma Deep & durable responses, outperforming pembrolizumab monotherapy Completed

TACTI-002 – Efti + Pembro



Phase II in 1st and 2nd line NSCLC

- 1st line NSCLC: high increase in ORR compared to historical Pembrolizumab monotherapy.
- <u>1st line NSCLC:</u> Responses in PD-L1 high/low/no expressing subgroups.
- 2nd line NSCLC, PD-X refractory: data presentation at European Lung Cancer Congress 2022.

INSIGHT-003



Phase I in Solid Tumors

- > Triple combo: anti-PD1 + efti + chemo
- Started: Q4 2021 / data in 2022

TACTI-002 – Efti + Pembro



Phase II in 2nd line HNSCC

- Durable, deep responses (app. 30% ORR, 5 CRs) in a very challenging patient population.
- Responses in PD-L1 in low expressing subgroup.

TACTIONS Effici Dombro



- Phase IIb in 1st line HNSCC
 - Currently recruiting
- Fast Track Designation by FDA



Efti + anti-PD-1 Combination

TACTI-002 trial
TACTI-003 trial

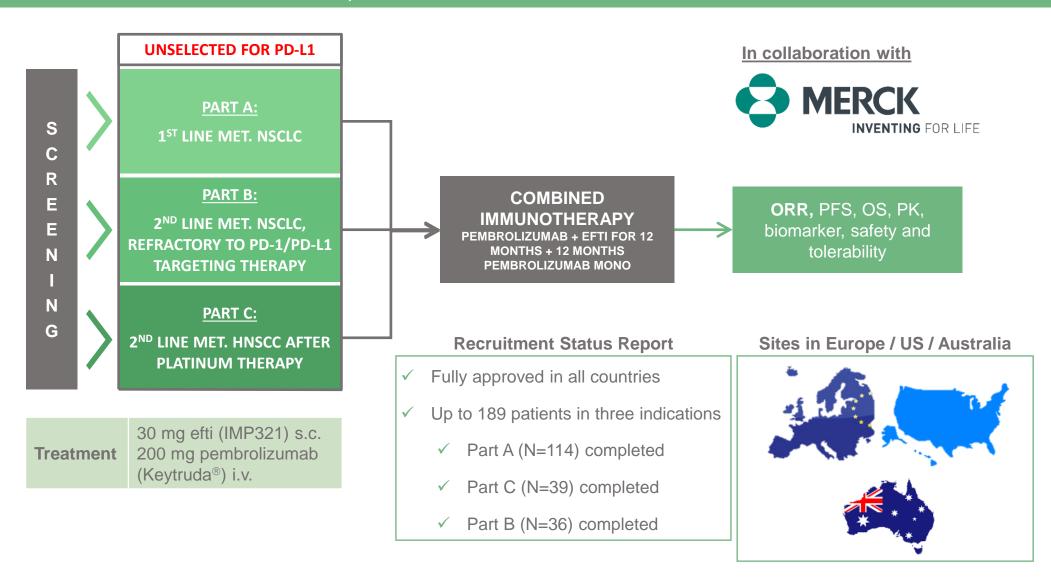
Interim updates from ASCO 2021 and SITC 2021

TACTI-002 (Phase II)

Design & Status



TACTI-002: Two ACTive Immunotherapeutics in NSCLC and HNSCC



TACTI-002 Results⁽¹⁾

1st line NSCLC (Part A)



- PD-L1 distribution as expected (~70% with < 50% PD-L1 expression) → PD-L1 all comer trial
- Patients are typical NSCLC 1st line pts

Baseline parameters	N (%)
Age (years), median (range)	68.5 (53-84)
Female Male	11 (30.6) 25 (69.4)
ECOG 0 ECOG 1	15 (41.7) 21 (58.3)
Current / Ex-smokers Non-smokers	34 (94.4) 2 (5.6)
Squamous pathology Non-squamous pathology	15 (41.7) 21 (58.3)
Patients with liver metastasis	14 (38.9)

Best overall response, iRECIST, N = 36	Local Read (investigator) N (%)	Blinded Read (BICR) N (%)
Complete Response	2 (5.6)	2 (5.6)
Partial Response	11 (30.6)	13 (36.1)
Stable Disease	11 (30.6)	10 (27.8)
Progression	8 (22.2)	6 (16.7)
Not Evaluable**	4 (11.1)	5 (13.9)
Disease Control Rate	24 (66.7)	25 (69.4)
Overall Response Rate* [95% Cl interval]	13 (36.1) [20.8-53.8]	15 (41.7) [25.5-59.2]
Overall Response Rate – Evaluable pts*** [95% Cl interval]	13 (40.6) [23.7-59.4]	15 (48.4) [30.1-60.9]

^{* -} All patients stage 1 and 2 (N=36) with ≥ 1 treatment

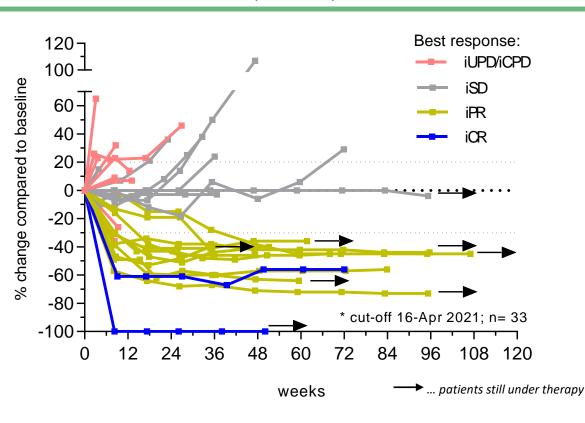
^{** -} dropped off prior to first staging or were not evaluable post-baseline for any reason

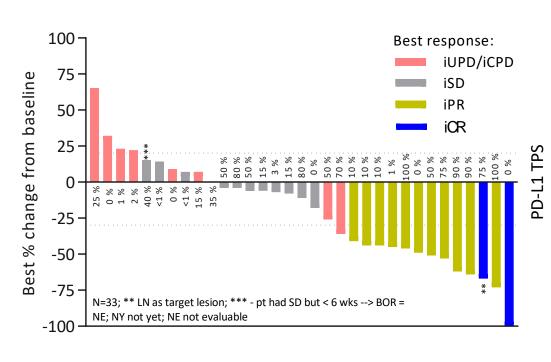
^{*** -} Evaluable for efficacy meaning ≥ 1 treatment and ≥ 1 post baseline tumor staging

TACTI-002 Results(1)

1st line NSCLC (Part A)







Duration of response (DoR)

- 92% responses confirmed
- 58% confirmed responses ongoing with 6+ months
- 42% of confirmed responses progressed after 6.5-13.8 months
- Median DoR estimated 13+ months

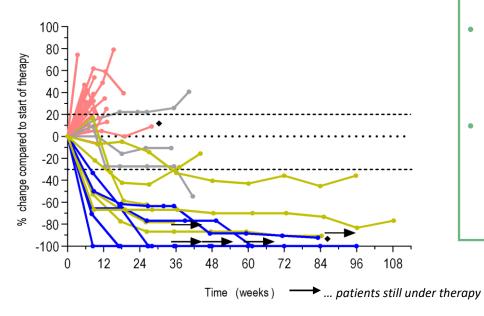
- Responses at all PD-L1 levels including 1 Complete Response with TPS of 0%
- At data cut-off, 7 pts still under therapy and 1 patient completed the 2 years of therapy

TACTI-002 Results⁽¹⁾

2nd line HNSCC (Part C)

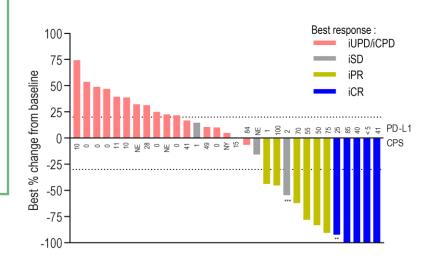


Best overall response, iRECIST	Investigator assessment N (%)
Complete Response	5 (13.5)
Partial Response	6 (16.2)
Stable Disease	3 (8.1)
Progression	17 (45.9)
Not evaluable¶	6 (16.2)
Disease Control Rate	14 (37.8)
Overall Response Rate [95% CI]	11 (29.7) [15.9 – 47.0]
Overall Response Rate – Evaluable pts* [95% CI]	11 (35.5) [19.2 – 54.6]

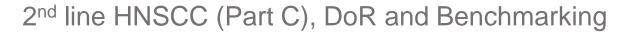


- ORR (iRECIST) in ITT of 29.7% and 35.5% evaluable pts
- Responses are deep with 5 (13.5%) CRs and long lasting
- ORR of 40.7% (CPS ≥ 1) and 64.3 (CPS ≥ 20)
- OS rates at 12 months for all PD-L1 groups in the range of 50% or above

CPS score	All comer (N=37)	≥1 (N=27)	≥20 (n=14)
ORR (iRECIST)			
ORR, %	29.7	40.7	64.3
Overall survival			
No. of events	23	17	7
6-month OS, %	54.7	55.5	71.4
12-month OS, %	48.4	48.2	64.3
Progression-free survival			
No. of events	30	17	8
3-month PFS, %	37.8	48.2	64.3
6-month PFS, %	32.4	40.7	57.1



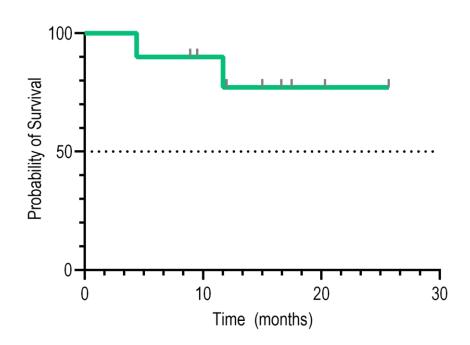
TACTI-002 Results(1)





Duration of Response (DoR)

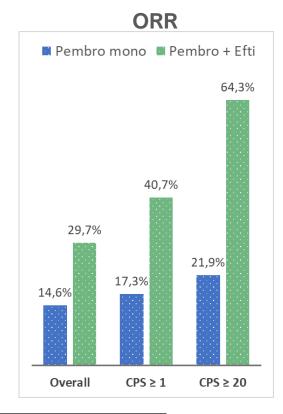
for confirmed responders (N=10)



- Median duration of response not yet reached
- all ongoing responses lasting9+ months

Benchmarking against Pembro mono

- ORR clearly higher (≥ factor 2) in all PD-L1 subgroups and overall
- PFS and OS rates at 6 and 12 months respectively are higher in all PD-L1 subgroups and overall with efti combination

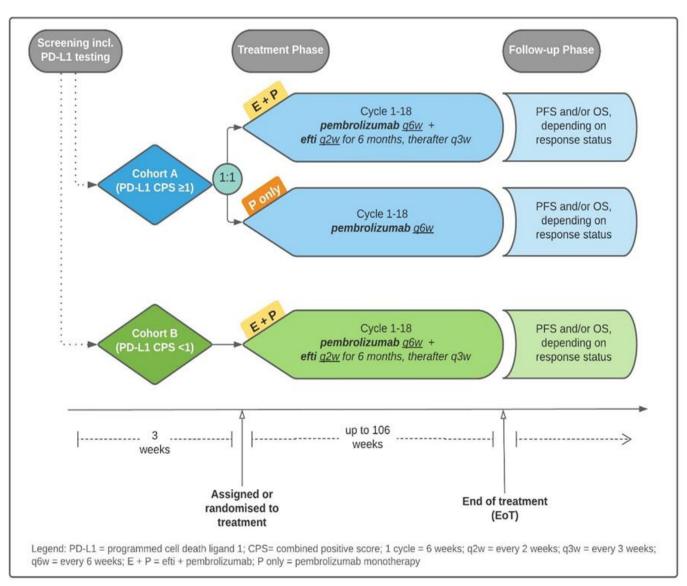


	PD-L1 (CPS)	Pembro mono**	TACTI-002
	≥ 20	21.9%	64.3%*
ORR (%)	≥ 1	17.3% (2% CR)	40.7% * (20.8% CR*)
(70)	Overall pop.	14.6%	35.5%#
mDoR (mths)	Overall pop.	18.4	Not reached with min. 9+ months at cut-off

TACTI-003 Trial in 1st line HNSCC

Current Design + Status





In collaboration with



Design:

- Randomised study with ORR as primary endpoint
- Sites worldwide (AU, US, Europe)
- Approx. 154 pts: either to be randomized to have sufficient pts in each group or in an experimental arm

Status:

- Ongoing, recruiting.
- Fast Track designation granted by FDA in April 2021



Efti + Chemo Combination

AIPAC trial

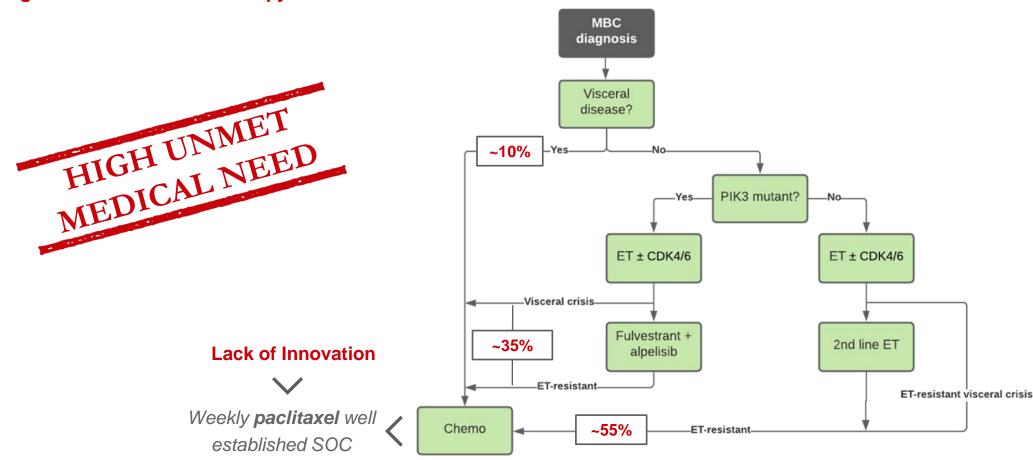
Final OS results presented at SITC 2021

Goal: Improving OS while maintaining QoL in HR+/HER2- MBC patients



Epidemiology:

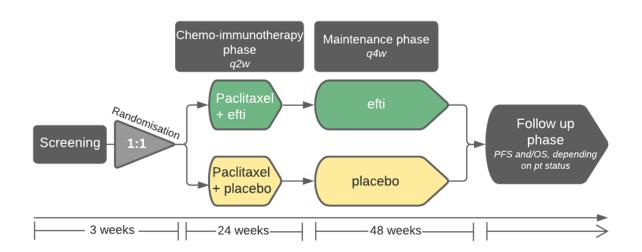
- Breast cancer (BC) is the **most frequently diagnosed cancer**. More than 2 million breast cancer (thereof ~70% HR+/HER2--) diagnoses per annum worldwide.
- Up to 550,000 patients in total and app. 350,000 patients younger than 65 develop metastatic disease and are eligible to receive chemotherapy⁽¹⁾ (2)



Efti: AIPAC (Phase IIb) design



AIPAC: Active Immunotherapy PAClitaxel in HER2-/ HR+ metastatic breast cancer (MBC)



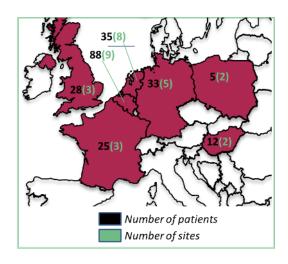
Hypothesis-Generating Study

Primary endpoint(*) (presented Mar. 2020) included:

Assessment of Progression-Free Survival (PFS)

Secondary endpoints(*) (presented Dec. 2020) included:

- Overall Survival (OS)
- Safety and tolerability
- Overall Response Rate (ORR) and other efficacy parameters
- Biomarker and Immune Monitoring



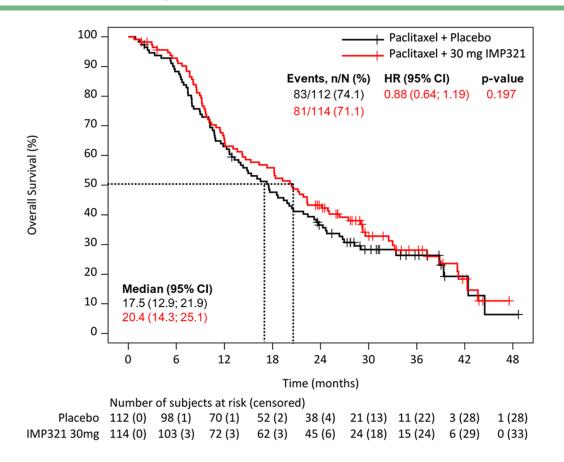
Fact sheet

- √ Conducted in 7 FU countries.
- √ Local and blinded independent central read
- √ Last Patient In enrolled Jun. 2019
- √ Primary analysis PFS (immature OS) Mar. 2020
- ✓ Follow-up 1 analysis OS Sep. 2020 (SABCS Dec. 2020) - ~60% OS events
- √ Final OS analysis presented at SITC 2021

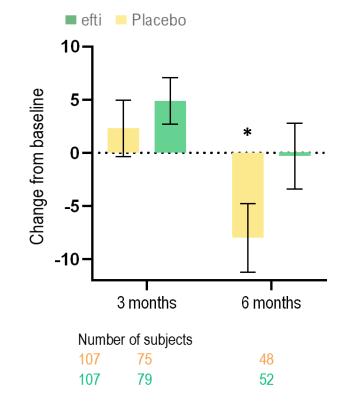
AIPAC Results: Overall Unselected Population*



Improving OS with better QoL







- Increase in OS: +2.9 months from median of 17.5 (95% CI: 12.9-21.9) in placebo to 20.4 (95% CI: 14.3 -25.1) in the efti group.
- Post-study treatment similar: 86% (efti) vs. 90% (placebo); majority received chemotherapy 70.2% (efti) vs. 76.8% (placebo)
- Preserving QoL in the efti arm, while significant deterioration of QoL (QLQ-C30-B23) observed in the placebo group at 6 months.
- Note: Paclitaxel treatment intensity was similar between groups

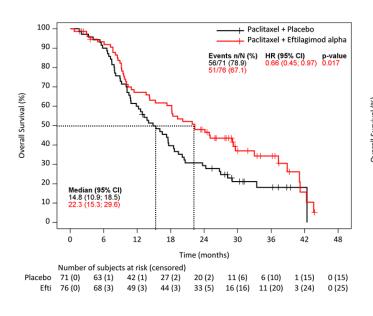
AIPAC Results: Prespecified Subgroups

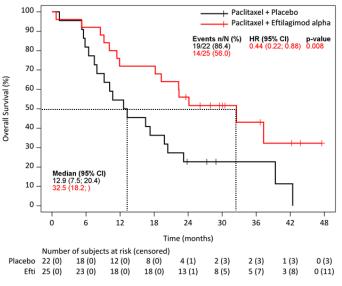


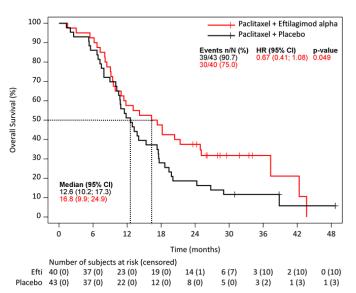
Statistically significant median OS improvement in 3 subgroups

< 65 years:
+7.5 months median
OS (HR 0.66; p=0.017)</pre>

Low Monocytes: +19.6 months median OS (HR 0.44; p=0.008) **Luminal B: +4.2 months median OS** (HR 0.67, p=0.049)







Statistically significant and clinically meaningful improvement in median OS in 3 prespecified patient subgroups: informs Phase III trial design

AIPAC Results

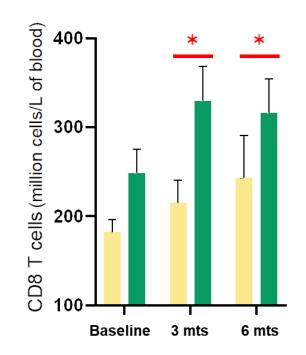
Immune Monitoring on Fresh Blood (up to 70 patients)



Significant Increase of CD8+ T Cell Count

Minimal Residual Effect: samples taken just before next treatment

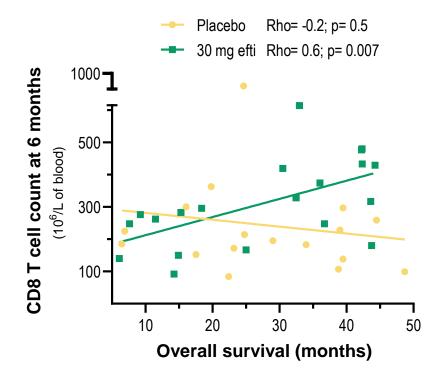




Proof of Principle
Number of T cells increased in efti group,
especially cytotoxic CD8+ T cells

Significant Correlation:

OS and cytotoxic CD8+ T cell count



Proof of Concept

Increased number of cytotoxic CD8+ T cells correlated with improved OS in the efti arm

AIPAC-003: Phase III in MBC



General Concept (subject to further regulatory interactions)

1) Primary Endpoint: Overall Survival

- Preferred endpoint for Phase III and approval by regulatory agencies in such a patient population.
- Seems to be a better fit for active immunotherapies such as efti.

2) Treatment

 Paclitaxel will be allowed to be continued beyond 6 cycles to accommodate for EU & US standards and as a lesson from AIPAC.

3) Patient Population on Target

 Immutep will define the patient population and statistical read-out in a way to increase likelihood of success.

4) Statistical Design

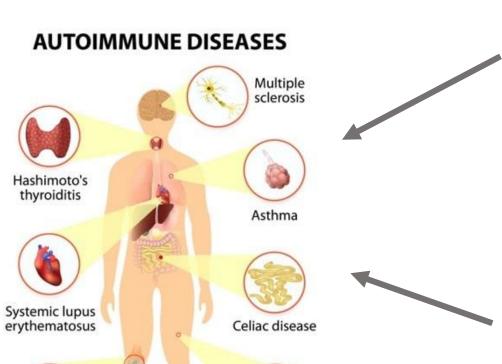
• Will be robust and pre-agreed with regulatory agencies to ensure success later during MAA/BLA procedures.



IMP761 - Autoimmune Diseases -

Broad potential in targeting auto-reactive memory T cells with IMP761



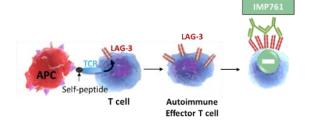


THE PRESENT: FIGHTING THE SYMPTOMS
Treating general inflammation:

corticoids, methotrexate, anti-TNF-α, -IL-6, -IL-17, -IL-23 mAbs

THE FUTURE: FIGHTING THE CAUSE Treating the disease process:

silencing the few autoimmune memory T cells accumulating at the disease site with IMP761



POTENTIAL GAME CHANGER IN AUTOIMMUNE DISEASES (US\$153.32 billion by 2025)1

Rheumatoid

arthritis

Eczema

and psoriasis



Outlook

2022 News Flow*



2022

- Clinical data from TACTI-002 (e.g. 1st line NSCLC)
 - 2nd line NSCLC PD-X refractory data will be presented at the European Lung Cancer Congress 2022 (end of March/beg. April)
- Ongoing recruitment & updates from randomised trial in 1st line HNSCC (TACTI-003)
- INSIGHT-003 recruitment & first results
- Regulatory updates
- Manufacturing scale up to 2,000 L
- Expansion of existing programs (incl. planned Phase III)
- Updates from IMP761
- Further updates from partnered programs (e.g. GSK, Novartis, EOC Pharma)

- √ Validation of LAG-3/MHC-II interaction through BMS's Phase III results in melanoma
- 2022 could be a breakthrough year for LAG-3 as it is likely to become an approved commercial target

Summary



Four LAG-3 product candidates with multiple active clinical trials

Multiple big pharma partnerships



Well funded with approx. A\$100 million (US\$74 million) (2) in cash



IO therapies for Oncology and Autoimmune diseases - very large and growing markets

Corporate Snapshot

Ticker Symbols

IMM (ASX) IMMP (NASDAQ) Ordinary shares on issue⁽¹⁾

854.1m

Market Cap
(as at 7 March 2022)

~ A\$307m (~US\$227m)

⁽¹⁾ Currently ~27.81% of the ordinary shares are represented by ADSs listed on NASDAQ where 1 ADS represents 10 ordinary shares as of 7 March 2022.



Thank You