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LAG-3 IMMUNOTHERAPY

A Global Leader in LAG-3 Therapeutics in Oncology and Autoimmune Disease

Corporate Presentation – November 2022

(ASX: IMM, NASDAQ: IMMP)

Forward-Looking Statements

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Immutep Overview

Pioneering LAG-3 Portfolio in Oncology & Autoimmune Disease

Immutep is a pure-play LAG-3 clinical-stage company with four product candidates that address significant market opportunities in oncology & autoimmune disease

Collaborations with Industry Leaders

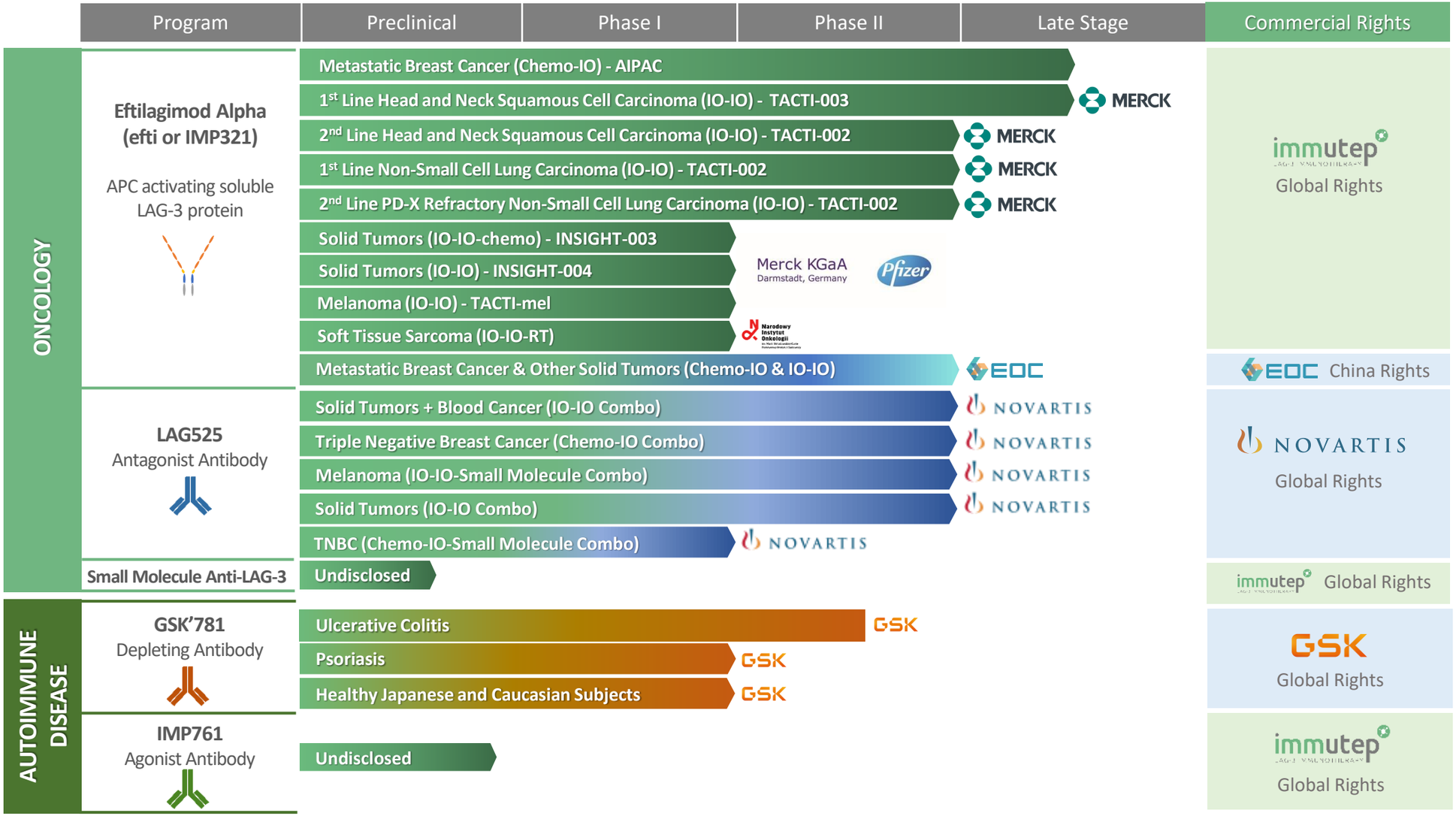
MERCK
NOVARTIS
GSK
Merck KGaA
Darmstadt, Germany
Pfizer
LabCorp
EOC

Compelling Clinical Data

Clinical trials of lead candidate eftilagimod alpha (efti) with immunotherapy & chemotherapy have shown compelling results in NSCLC, HNSCC, HR+/HER2- BC, melanoma and other solid tumors

Global Presence

Immutep LAG-3 Pipeline



Information in pipeline chart current as of September 2022;For EOC's China rights, Immutep may receive undisclosed milestones plus royalties; LAG525 - ClinicalTrials.gov (for Novartis' global rights, Immutep may receive undisclosed milestones plus royalties); GSK2831781 - ClinicalTrials.gov (for GSK's global rights, Immutep may receive up to £64m in total upfront payments and milestones, plus royalties)

LAG-3: Approved Checkpoint with Unique Characteristics

Immune system's role in controlling cancer has led to regulatory approval of immunotherapies targeting CTLA-4, PD-1, and now LAG-3 checkpoints

Cytotoxic T lymphocyte Antigen-4 (CTLA-4)

Yervoy (anti-CTLA-4) approved 2011; commercial sales ***>$2 billion*** *in 2021*

YERVOY (ipilimumab)

Programmed Cell Death Protein-1 (PD-1)

Keytruda & Opdivo (anti-PD-1) approved 2014; combined commercial sales ***>$24 billion*** *in 2021*

KEYTRUDA (pembrolizumab) OPDIVO (nivolumab)

Lymphocyte Activating Gene-3 (LAG-3)*

Relatlimab (anti-LAG-3) approved 2022 in combination with Opdivo; BMS est. ***>$4 billion*** *in NRA sales** in 2029*

Opdualag (nivolumab and relatlimab-rmbw)

LAG-3 is unique in that its inhibition on T cells & activation of dendritic cells engages the adaptive & innate immune systems against cancer offering significant potential to: (1) improve responses to standard-of-care immunotherapy & chemotherapy, (2) limit emergence of resistance, (3) offer chemotherapy-free options in select indications.

*Discovered by Immutep's CMO & CSO, Prof Frédéric Triebel in 1990; **JPM 2022 Presentation; Non-Risk Adjusted Sales subject to positive registrational trials and health authority approval

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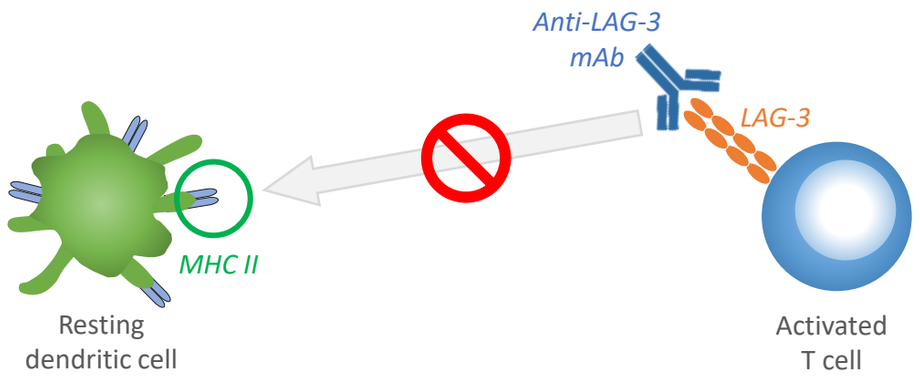
LAG-3 Therapeutics for Oncology

Multiple Companies Targeting LAG-3 Inhibition

Releasing the Brake on T cells

Blocking LAG-3 / MHC II interaction increases cytotoxicity of pre-existing CD8 T cell response



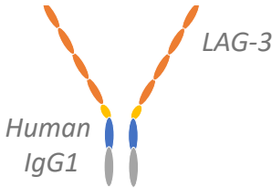
Company*	Program	Phase 1	Phase 2	Phase 3	
Bristol Myers Squibb	Relatlimab	8	35	4	Received FDA approval in March 2022
MERCK	Favezelimab	1	8	1	
REGENERON	Fianlimab	1	1	1	
NOVARTIS	Ieramilimab	1	4		
MacroGenics	Tebotelimab	3	3		
Roche	R07247669	2	3		
Incyte	INCAGN02385	2	2		
Boehringer Ingelheim	BI754111	4	1		
innovent	IBI110	2	1		
TESARO	TSR-033	1	1		
symphogen	SYM022	3			
F-star	FS-118	1			

- Immutep designed the first anti-LAG-3 antibody and licensed it to CoStim Pharmaceuticals in 2012, which was acquired by Novartis in 2014
- Novartis' anti-LAG-3 mAb, LAG525, activates effector T cells & inhibits regulatory T cells (removing two brakes on the immune system to respond to and kill cancer cells) and has been tested in multiple clinical trials combined with spartalizumab (anti-PD-1) and chemotherapy**
- IP estate for LAG525 continues to strengthen with patent grants in key markets including US, Europe, Japan and China

*Graphic adapted from Lymphocyte Activation Gene 3 in Immuno-oncology: A Soluble Protein Alternative; BioProcess International Feb 2022. Note F-star acquired by InvoX Pharma, a wholly-owned subsidiary of Sino Bioph. Ltd., Les Laboratoires Servier acquired Symphogen, and GSK acquired Tesaro;
**LAG525 - ClinicalTrials.gov (for Novartis' global rights, Immutep may receive undisclosed milestones plus royalties)

First-in-Class Positioning in LAG-3 Oncology Landscape via Efti

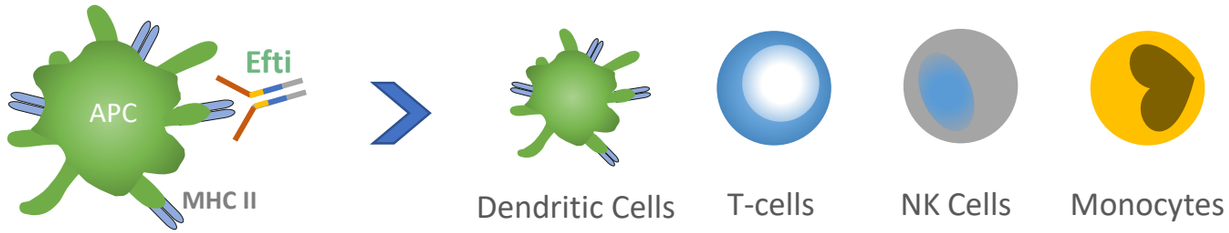
Eftilagimod alpha (Efti)



Immutep's proprietary soluble LAG-3Ig clinical candidate is a first-in-class antigen-presenting cell (APC) agonist via MHC II that capitalizes on LAG-3's unique characteristics

Pushing the Accelerator on the Immune System

APC activation with Efti **Anti-tumor immune cell activation**



Broad activation of immune system

- Efti capitalizes on LAG-3's unique ability to drive adaptive & innate immune systems against cancer
- Efti has high affinity for a subset of MHC II ligand on APCs and their activation drives broad stimulation of multiple anti-tumor cells

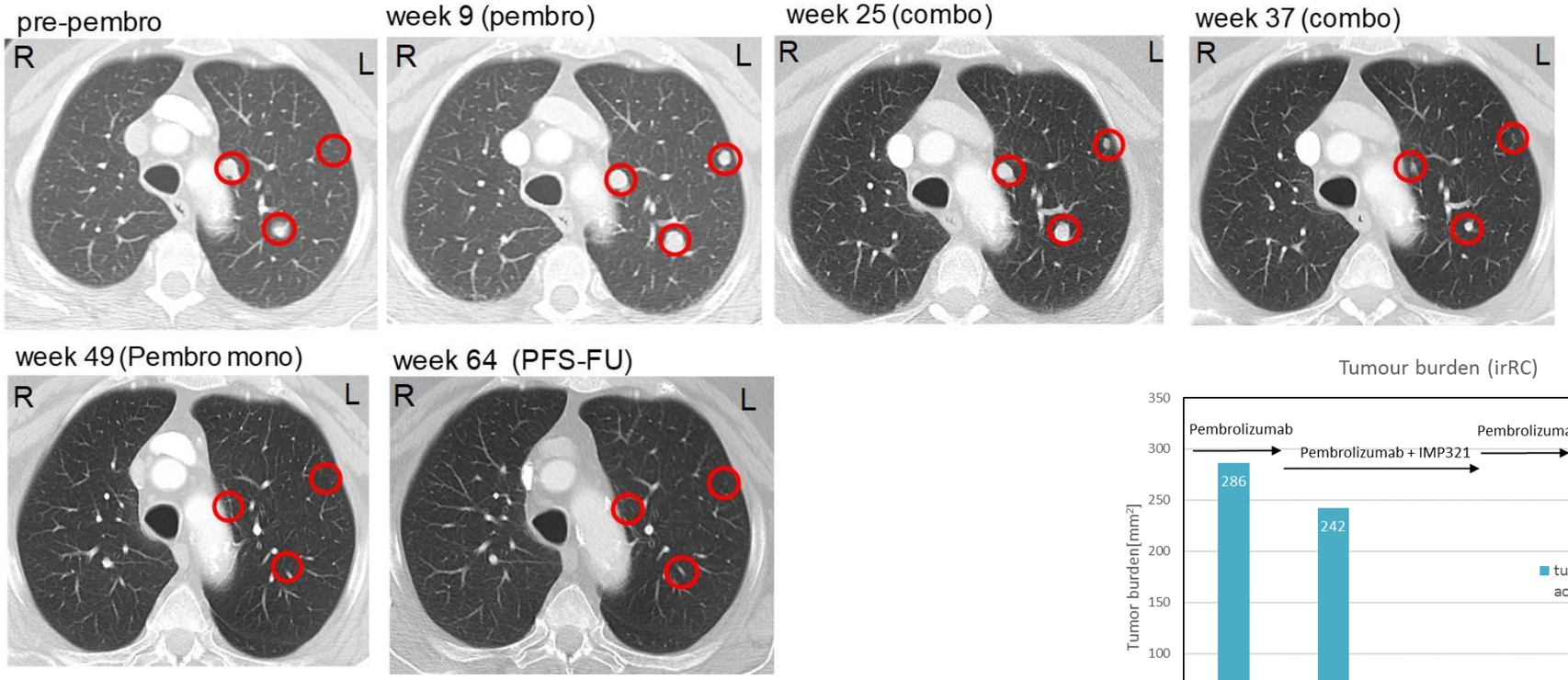
Compelling pairing capabilities

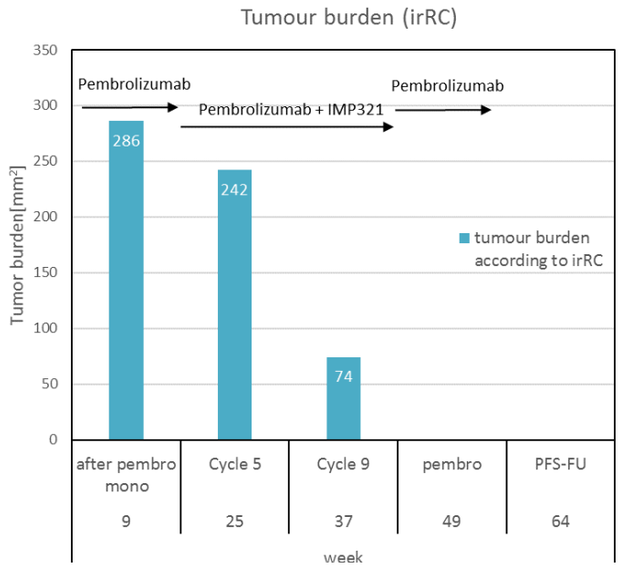
- Excellent safety profile drives high suitability for combination partnering
- Synergistic activity & encouraging clinical results with multiple agents including anti-PD-1, anti-PD-L1, and chemotherapy
- Enhances clinical activity of anti-PD-1 across PD-L1 status, including low & negative PD-L1 tumors

Efti: Clinical Development
TACTI-mel - Results - Single Case

Activity: Metastatic Melanoma

Tumor progression → **Tumor regression** →





- Patient progressing on Keytruda monotherapy
- At 1 yr all lesions disappeared → Complete Response (confirmed)
- Patient without treatment and disease free at last visit

Notes:
Data-cut-off: Oct 2019

Non-Small Cell Lung Cancer

TACTI-002 trial

Efti + Pembrolizumab

1st line Metastatic NSCLC

FDA Fast Track Designation

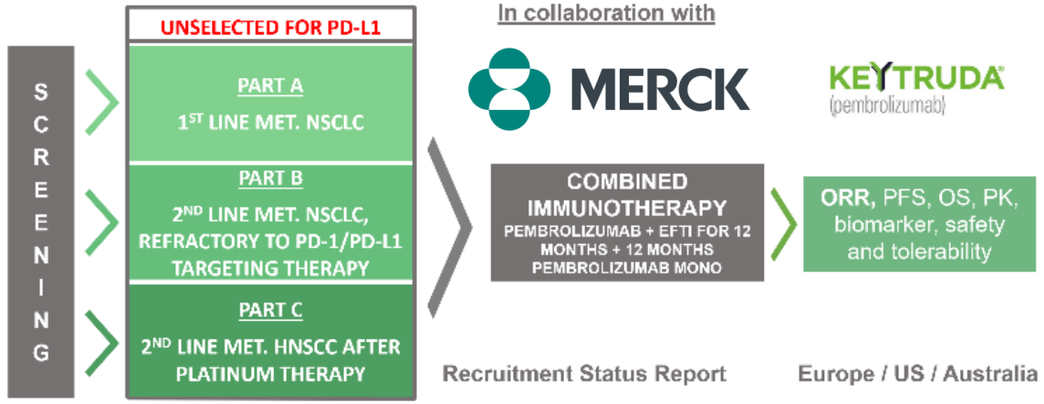
ASCO 2022

Click here

Phase II Trial Evaluating Efti + Pembro in 1L NSCLC

TACTI-002/KEYNOTE-798: 1st Line Non-Small Cell Lung Cancer (Part A)

TACTI-002: Two ACTive Immunotherapeutics in NSCLC & HNSCC



Treatment	30 mg efti s.c. 200 mg pembrolizumab (Keytruda®) i.v.

Recruitment Status Report

- ✓ Fully approved in all countries
- ✓ Up to 189 patients in three indications
  - ✓ Part A (N=114) completed
  - ✓ Part B (N=36) completed
  - ✓ Part C (N=39) completed

Europe / US / Australia

Baseline characteristics for PD-L1 All Comer Trial		Part A (N=114)
Age, median (range), years		67 (44-85)
Sex, n (%)	Female / Male	30 (26.3) / 84 (73.7)
ECOG PS score, n (%)	0 / 1	43 (37.7) / 71 (62.3)
Smoking status, n (%)	Current or Ex-smoker / Non-smoker	108 (94.7) / 6 (5.3)
Histology, n (%)	Squamous / Non-squamous / Unknown	40 (35.1) / 72 (63.2) / 2 (1.8)
Metastatic disease, n (%)	Yes / No	106 (93.0) / 8 (7.1)
PD-L1 expression TPS[1], n (%)	< 1% 1-49% ≥ 50% Not evaluable	37 (32.5) 40 (35.1) 31 (27.2) 6 (5.3)
Previous therapy, n (%)	Radiotherapy Surgery Systemic therapy for non-metastatic disease	38 (33.3) 23 (20.2) 25 (21.9)

All-comer trial for patients with all levels of PD-L1 expression;
~33% & ~68% of 1L NSCLC patients in TACTI-002/KEYNOTE-798 have PD-L1 TPS of <1% & <50%, respectively.

[1] Central assessment of PD-L1 TPS using Dako PD-L1 IHC 22C3 pharmDx for 87 pts. For 21 pts, local assessment was used due to non evaluable central assessment results. TPS: tumor proportion score.

Encouraging Clinical Results; Primary Objective Achieved; Strong ORR/PFS Across Entire PD-L1 Spectrum vs Pembrolizumab

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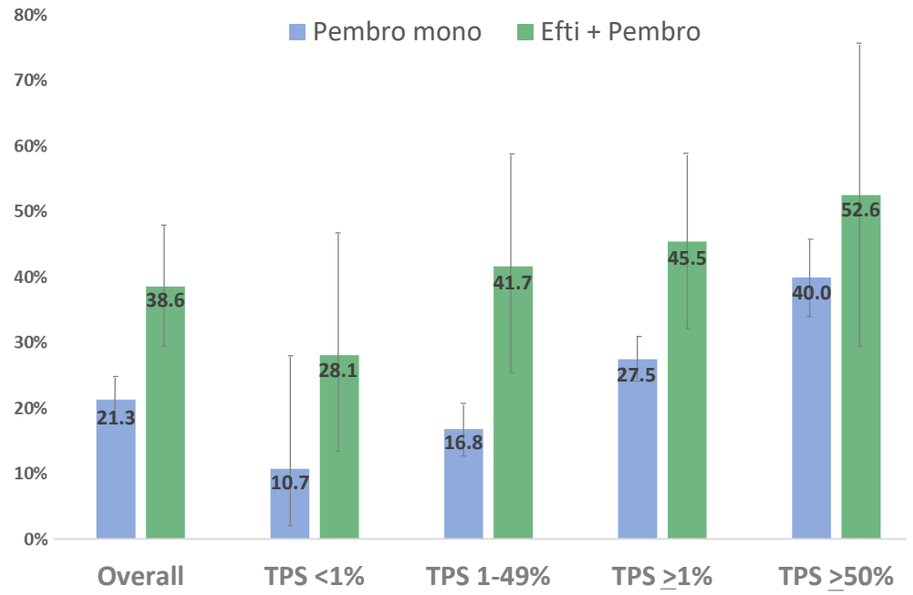
TACTI-002/KEYNOTE-798: 1L NSCLC (Part A)

Key Takeaways

- Primary objective achieved (ORR >35%)
- Superior ORR/PFS across all PD-L1 levels
- Sustained, durable responses
- Safe, well tolerated

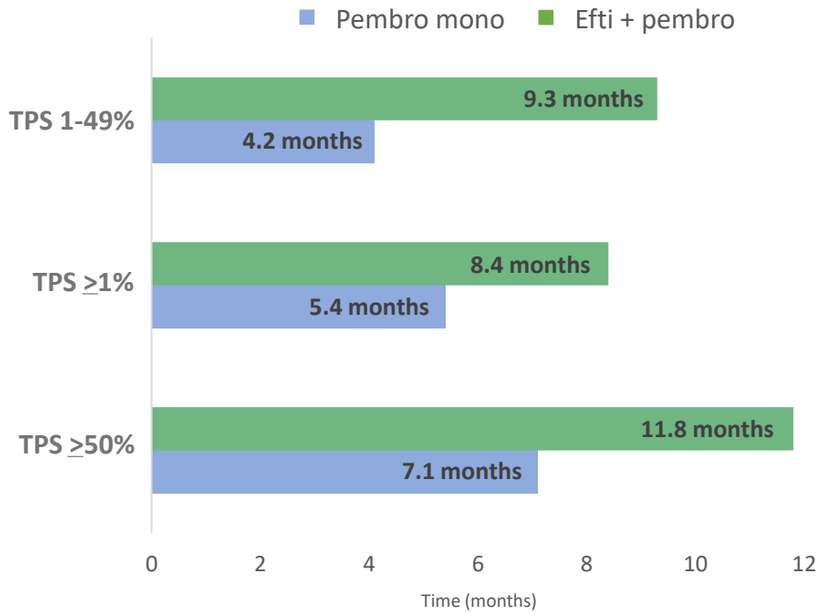
Overall Response Rate* (ORR)

(with 95% confidence intervals)



Median Progression Free Survival# (PFS)

(by PD-L1 TPS Score)



* Efti + Pembro ORR by iRECIST, unconfirmed, Total (N=114) and PD-L1 TPS subgroups (N=87). Data cut-off April 15, 2022. Pembrolizumab ('pembro') mono efficacy used for benchmarking for ORR: Total calculation based on KN-001; KN-042 and on adjustment for the same PD-L1 subgroup distribution as in TACTI-002. < 1 % TPS: calculation based on limited data set from KN-001 (1st & 2nd line altogether). 1-49%, ≥ 50%, and ≥ 1 % TPS based on KN-001, KN-042. # PFS by PD-L1 status (N=108) using central assessment for 87 patients. For 21 patients, local assessment used due to non-eval central assessment results. Pembro mono efficacy used for benchmarking: 1-49%, ≥ 50%, and ≥ 1 % TPS based on KN-001, KN-042. Lancet https://doi.org/10.1016/S0140-6736(18)32409-7, Oral Presentation 2018 ASCO, EPAR assessment report, N Engl J Med 2016; 375:1823-33; KN-024 update J Clin Oncol 2019, KN-024 J Clin Oncol 2021

Deep and Durable Responses

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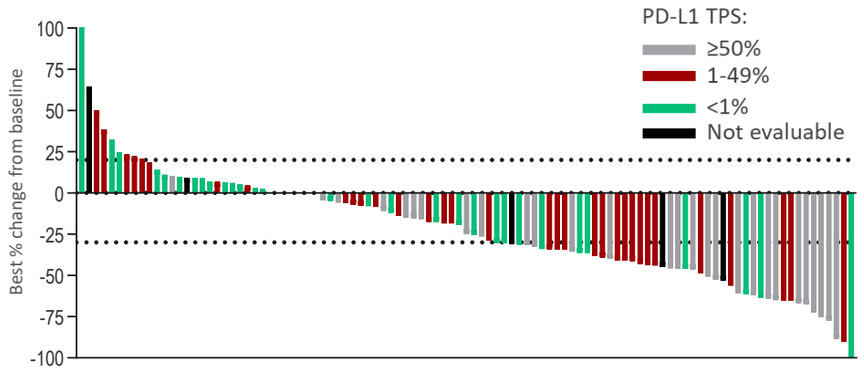
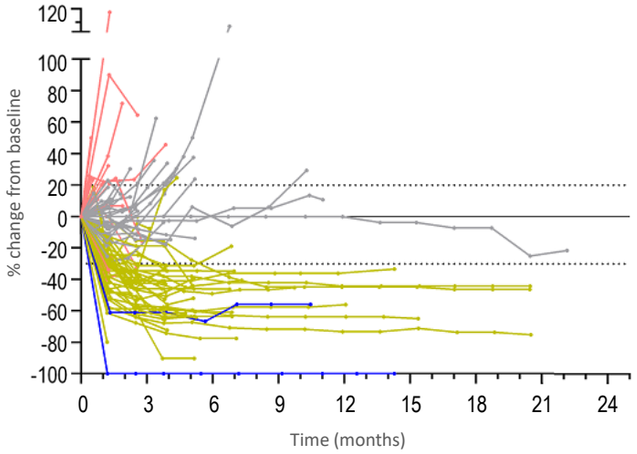
TACTI-002/KEYNOTE-798: 1L NSCLC (Part A)

Tumor Burden Reduced in Majority of Patients



Change in Tumor Size Over Time



- Responses are deep & long-lasting; median DoR not yet reached
- 80% (35) of responses[1] already confirmed & 11.4% (5) pending confirmation
- 95% of patients having a response < 4 months after study start
- Only 8.6% of patients with confirmed response[2] progressed ≤ 6 months until data cut-off
- 66% (68) of patients with post-baseline assessment had decrease in target lesions

All patients with ≥1 post-baseline CT scan; n=103; iUPD: unconfirmed progressive disease; iCPD: confirmed progressive disease; iPR: partial response; iCR: complete response. [1] by iRECIST. [2] All patients with confirmed response by iRECIST

Benchmarking against IO & IO-Chemo Combinations

TACTI-002/KEYNOTE-798: 1L NSCLC (Part A)

	TPS	Treatment	Efficacy[1]	Toxicity: AEs leading to disc.
1L NSCLC	≥ 1%	**Efti + Pembro**	**ORR 45.5%** **PFS 8.4 mos**	**< 10%**
		Pembro mono	**ORR 27.5%** **PFS 5.4 mos**	**1-14%**
		Ipi + Nivo[2]	**ORR 36%** **PFS 5.1 mos**	**18%**
	1-49%	**Efti + Pembro**	**ORR 41.7%** **PFS 9.3 mos**	**< 10%**
		Doublet Chemo + Pembro	**ORR 49.2% (NSQ) & 50% (SQ)** **PFS 7.2 (SQ) & 9.2 (NSQ) mos**	**14%**
		Pembro mono	**ORR 16.8%** **PFS 4.1 mos**	**1-14%**
	≥ 50%	**Efti + Pembro**	**ORR 52.6%** **PFS 11.8 mos**	**< 10%**
		Pembro/Atezo/Libtayo mono	**ORR 35-45%** **PFS 7-10 mos**	**1-14%**
	0-100%	**Efti + Pembro**	**ORR 38.6%** **PFS 6.9 mos**	**< 10%**
		Doublet Chemo	**ORR 19-30%** **PFS 5-9 mos**	**8-22%**
		Doublet Chemo + Pembro	**ORR 48% (NSQ) & 63% (SQ)** **PFS 6 (SQ) & 9 (NSQ) mos**	**14%**
		Doublet Chemo + Atezo + Beva	**ORR 56%** **PFS 8.4 mos**	**33%**
		Doublet Chemo + Ipi + Nivo	**ORR 38%** **PFS 6.7 mos**	**19%**

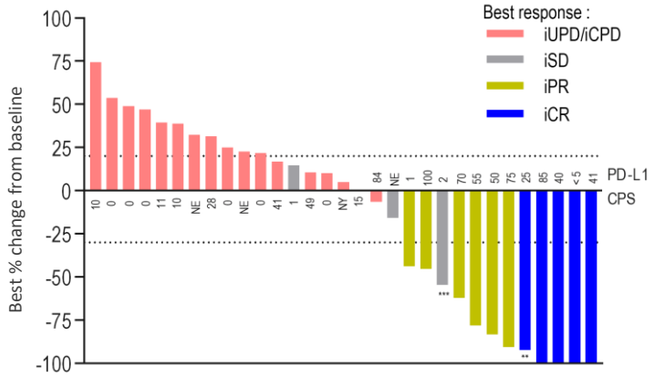
- ✓ Low efficacy of anti-PD-(L)1 monotherapy for patients with TPS <50% *(~70% of total population)*
- ✓ Double chemo + anti-PD-(L)1 → increased ORR & OS but shorter DoR due to chemo & more toxic; Ipi & Beva combos → high burden in terms of toxicity & high number of patients discontinuing
- ✓ Efti addresses both issues as shown with TACTI-002 results; INSIGHT-003 trial also exploring efti + pembro + chemo combination

Arrow lengths are not proportional representations of efficacy data. Data for Efti + Pembro derived from ASCO22 oral presentation. Data cut-off: April 15, 2022. Data for pembro derived from KN-001, KN-042, KN-189, KN-407 publications. [1] ORR and PFS results taken from respective publications of registrational trials. [2] Only approved by FDA not by EMA for TPS ≥ 1%.

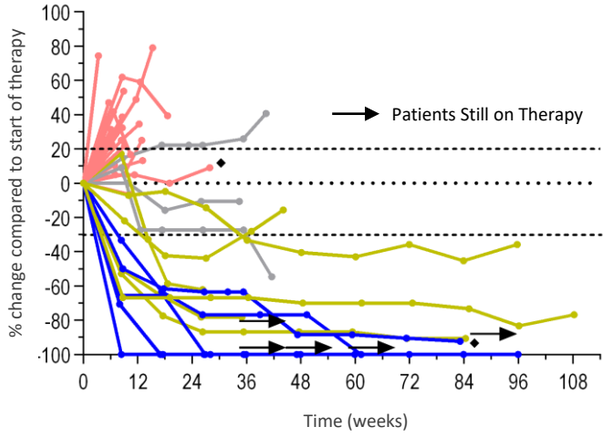
2L HNSCC: Robust ORR/CR with Long-Lasting Efficacy

TACTI-002/KEYNOTE-798: 2nd Line Head & Neck Squamous Cell Carcinoma (Part C)

Responses at all PD-L1 levels including 5 iCRs



Deep and durable responses



	Efti + Keytruda Combination*	Keytruda Monotherapy#
Clinical Trial & Phase	P2 (TACTI-002/KN-798)	P3 (KN-040)
Patient Number / tumor type	39 / 2L HNSCC	247 vs. 248 / 2L HNSCC
PD-L1 Status	PD-L1 All comer	PD-L1 All comer
Complete Response (CR) %	**13.5%**	**1.6%**
Partial Response (PR) %	**16.2%**	**13%**
Stable Disease (SD) %	**8.1%**	**22.7%**
ORR in evaluable patients %	**35.5%**	n/a
Overall Response Rate (ORR) %	**29.7%**	**14.6%**
PD-L1 CPS ≥1% group	**40.7%**	**17.3%**
PD-L1 CPS ≥20% group	**64.3%**	**21.9%**
Median PFS (months)	**2.1**	**2.1**
PD-L1 CPS ≥1% group	**4.1**	**2.2**
Median OS (months)	**12.6**	**8.4**
PD-L1 CPS ≥1% group	**12.6**	**8.7**

Eight-fold increase in CR with efti + pembro

More than double ORR <u>across all</u> PD-L1 levels with efti + pembro

*SITC 2021. Data cut-off date Aug 4, 2021. #Data for Keytruda derived from KN040 (EEW Cohen et al., *The Lancet* 2018).

Fast Track Designation in 1L HNSCC

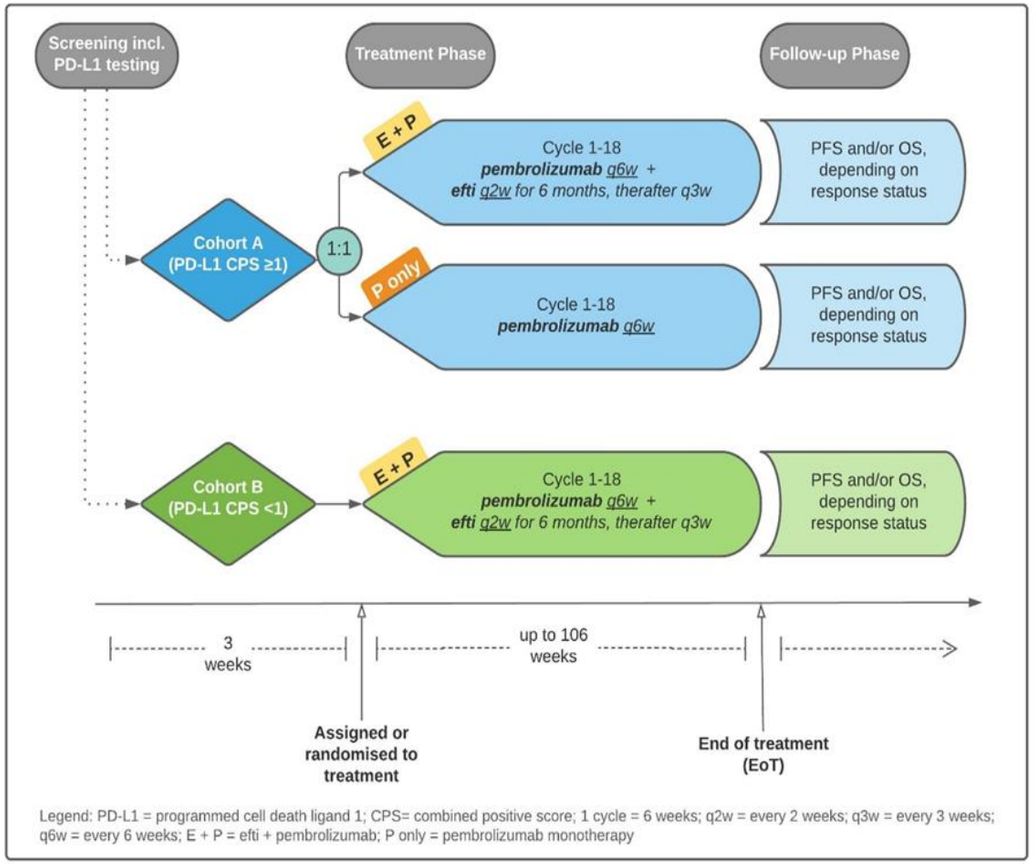
TACTI-003: Phase IIb in 1st Line Head and Neck Squamous Cell Carcinoma (HNSCC)

Status:

- Recruiting (~30% enrolled; recruitment accelerating as further sites have been activated*)
- **FDA Fast Track designation on strength of TACTI-002 data in 2L HNSCC**

Design:

- Randomised trial with ORR as primary endpoint
- Sites worldwide (AU, US, Europe)
- Approximately 154 patients: either to be randomised to have sufficient patients in each group or in an experimental arm



Legend: PD-L1 = programmed cell death ligand 1; CPS= combined positive score; 1 cycle = 6 weeks; q2w = every 2 weeks; q3w = every 3 weeks; q6w = every 6 weeks; E + P = efti + pembrolizumab; P only = pembrolizumab monotherapy

*As reported on September 14, 2022 in *'Immutep Clinical Development Update for its First-in-Class LAG-3 Antigen Presenting Cell Activator Candidate Eftilagimod Alpha'* press release

Summary

2022 Milestones

- Year to date:
  - ✓ 1L NSCLC Oral Presentation at ASCO (TACTI-002; Part A)
  - ✓ 2L NSCLC PD-X refractory data at ELCC & WCLC 2022 (TACTI-002; Part B)
  - ✓ Fast Track Designation granted in 1L NSCLC
  - ✓ Update from TACTI-003
  - ✓ New, significant data from AIPAC study
  - ✓ IP expansion for eftilagimod alpha
- Additional clinical data updates through year end
  - New data from Phase II TACTI-002 in 1L NSCLC
  - Initial results from INSIGHT-003 (first triple-combo data)
- Expansion of existing programs (i.e., new sarcoma trial)
- Regulatory updates
- Manufacturing scale up to 2,000L
- Updates on IMP761 & partnered programs (e.g. Novartis, GSK, EOC)

Corporate Snapshot

- Pioneering LAG-3 portfolio in oncology and autoimmune diseases with four product candidates in multiple clinical trials
- First-in-class positioning with eftilagimod alpha (efti)
- Multiple big pharma partnerships & collaborations, while retaining full control of efti (ex-China) & IMP761
- Well funded with ~A$73.9 million* in cash
- Cash runway to early CY2024*
- Listings

ASX (primary)	IMM
NASDAQ (ADS @ 1:10 ratio)	IMMP

- Market cap ~A$277M / $176M US**
- 7.41% owned by Fidelity (FIL)
- Total institutional ownership of ~57%

*As reported in Quarterly Activities Report for quarter ended 30 September, 2022 (Q1 FY23); ** As of 4 November, 2022. 26.76% of ordinary shares outstanding are represented by ADSs listed on NASDAQ.

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Thank You