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LAG-3 IMMUNOTHERAPY

Unlocking the power of the immune system against cancer and autoimmune disease.

Forward-Looking Statements

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Immutep Overview

Pioneering LAG-3 Therapeutics in Oncology & AI Disease

Immutep is a a clinical-stage biotechnology company developing novel LAG-3 immunotherapies that address significant market opportunities in oncology and autoimmune (AI) disease.

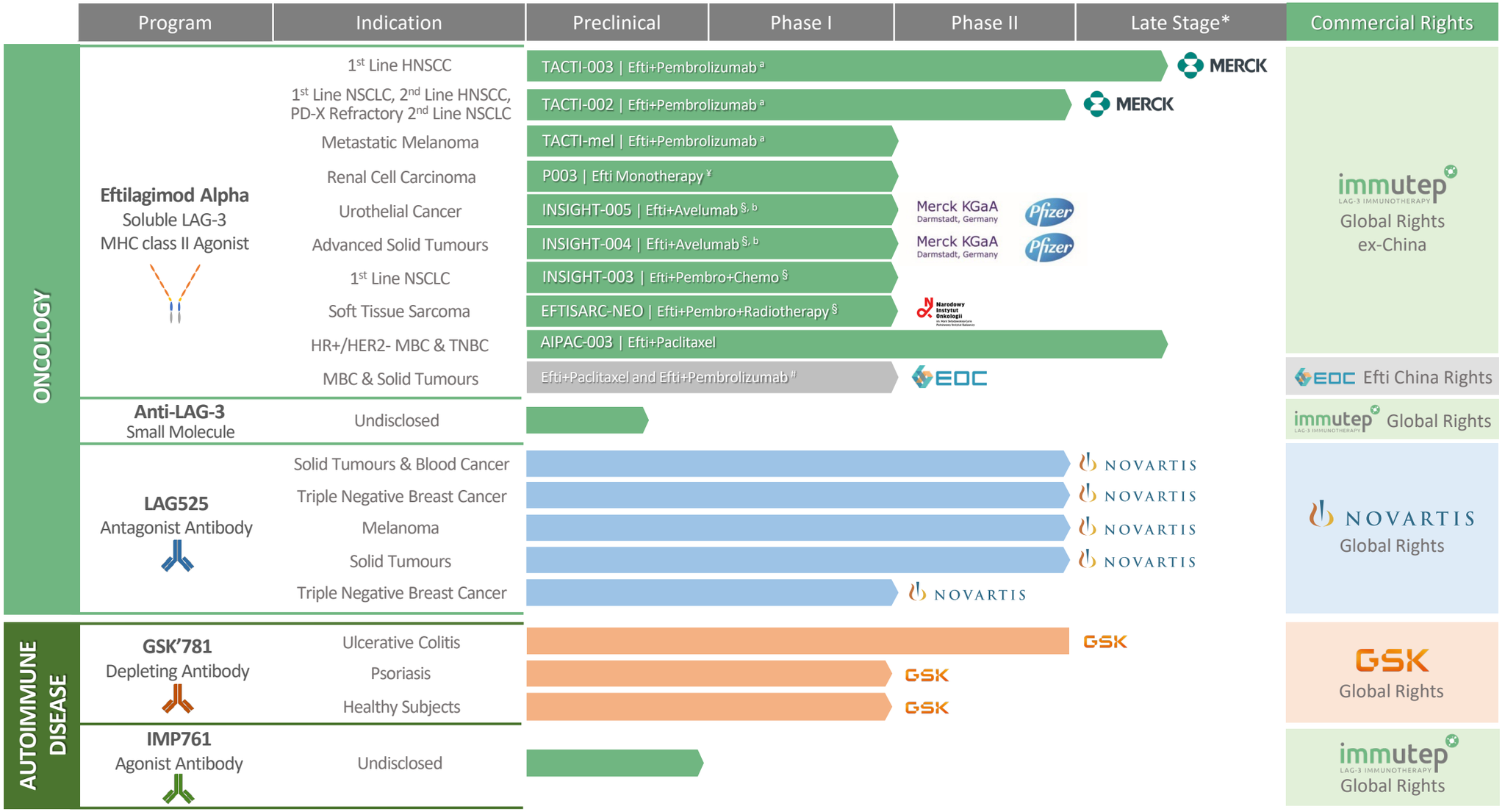
Compelling Clinical Data

First-in-class lead clinical candidate eftilagimod alpha has shown compelling efficacy and favourable safety in multiple solid tumours. Strength of clinical data, including doubling overall response rates of anti-PD-1 monotherapy, led to oral presentations at the prestigious ASCO & SITC conferences in 2022.

Collaborations with Industry Leaders & Global Presence

MERCK · Merck KGaA Darmstadt, Germany · Pfizer · NOVARTIS · GSK · LabCorp · EOC

Pipeline



Information in pipeline chart current as of Jan 2023;AIPAC-003 Phase II/III trial expected to begin Q1'2023. For EOC's China rights, Immutep may receive undisclosed milestones plus royalties; LAG525 - ClinicalTrials.gov (for Novartis' global rights, Immutep may receive milestones plus royalties); GSK2831781 - ClinicalTrials.gov (for GSK's global rights, Immutep may receive milestones plus royalties); * Late stage refers to active Phase IIb clinical trials or more clinically advanced clinical trials; # Conducted by EOC in China. Immutep has no control over either the trials. ¥ First-in-man dose-escalation study of Efti monotherapy with doses ranging from 50µg, 250µg, 1.25mg, 6.25mg & 30mg given sub-Q every 2 weeks for 12 weeks in total. § Investigator Initiated Trials controlled by lead investigator & therefore Immutep has no control over this clinical trial; [a] In combination with KEYTRUDA®; [b] In combination with BAVENCIO®.

LAG-3: A Validated Immune Checkpoint

Regulatory approval of immunotherapy targeting CTLA-4, PD-1, and now LAG-3* immune checkpoints (IC) highlight the immune system's powerful role in fighting cancer. Unfortunately, up to 80% of patients do not respond to IC monotherapy, driving a need for new IO approaches to achieve superior clinical outcomes.

YERVOY (ipilimumab)

Anti-CTLA-4

>$2 billion sales in 2021

KEYTRUDA (pembrolizumab) Injection 100 mg

OPDIVO (nivolumab)

Anti-PD-1's

>$24 billion combined sales in 2021

Opdualag (nivolumab and relatlimab-rmbw)

Anti-LAG-3 & Anti-PD-1

Est. **>$4 billion** sales in 2029 **

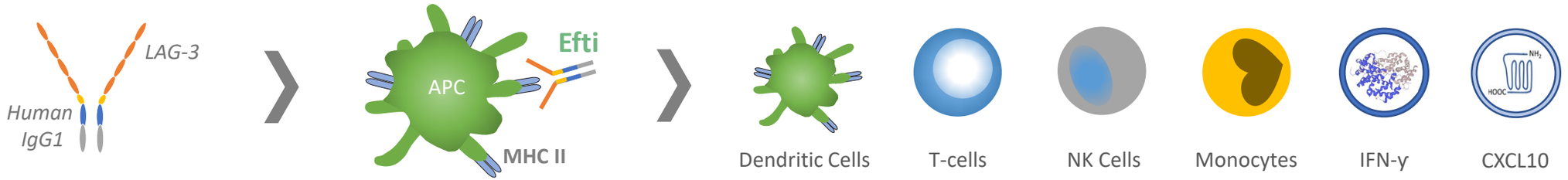
Immutep has multiple collaborations with large pharma and is well-positioned to take a leading role in LAG-3 immunotherapy that safely delivers on the potential of increased efficacy & durability for cancer patients.

*LAG-3 discovered by Immutep's CMO & CSO, Prof Frédéric Triebel; **JPM 2022 Presentation; Non-Risk Adjusted Sales subject to positive registrational trials and health authority approval
Note: CTLA-4 = Cytotoxic T lymphocyte Antigen-4, PD-1 = Programmed Cell Death Protein-1, LAG-3 = Lymphocyte Activating Gene-3.

Empowering the Immune System to Fight Cancer with First-in-Class Immunotherapy

Efti acts as a key to unlock broad immune system activation to fight cancer

Eftilagimod alpha (Efti) | **APC activation with Efti** | **Significant increase in anti-tumor immune cells & serum biomarkers**



- Efti, Immutep's first-in-class soluble LAG-3 antigen-presenting cell (APC) agonist, capitalizes on LAG-3's powerful ability to drive the adaptive & innate immune systems against cancer
- In multiple clinical trials, including monotherapy and combination trials with chemotherapy & anti-PD-(L)1 therapy, efti's unique activation of APCs through a subset of MHC II ligands has driven statistically-significant increases of various anti-tumor cells as well as serum biomarkers (e.g., IFN-γ & CXCL10) indicating systemic immune activation
- Efti has generated strong clinical results with anti-PD-(L)1 therapy and chemotherapy with a favorable safety profile, and enhances clinical activity of anti-PD-(L)1 therapy across the PD-L1 spectrum, including low & negative PD-L1 tumors

* [1] First-line chemoimmunotherapy in metastatic breast carcinoma: paclitaxel and IMP321 (LAG-3Ig) enhances immune responses and antitumor activity; *Journal Transl Med. 2010 Jul 23;8:71;* [2] Biomarker and multivariate analyses results from AIPAC: A phase IIb study comparing eftilagimod alpha (a soluble LAG-3 protein) to placebo in combination with weekly paclitaxel in HR + HER2 - metastatic breast carcinoma – ESMO 2022. [3] SITC 2022 Presentation: Data cut-off: July 1, 2022; Note: Plasma levels of IFN-g and CXCL10/IP10 are shown as mean of % change to baseline. [4] Brignone et al. A phase I pharmacokinetic and biological correlative study of IMP321, a novel MHC class II agonist, in patients with advanced renal cell carcinoma. *Clin. Cancer Res., 15 (2009)*

Clinical Results Show Strong Synergies with Immune Checkpoint Inhibitors and/or Chemotherapy

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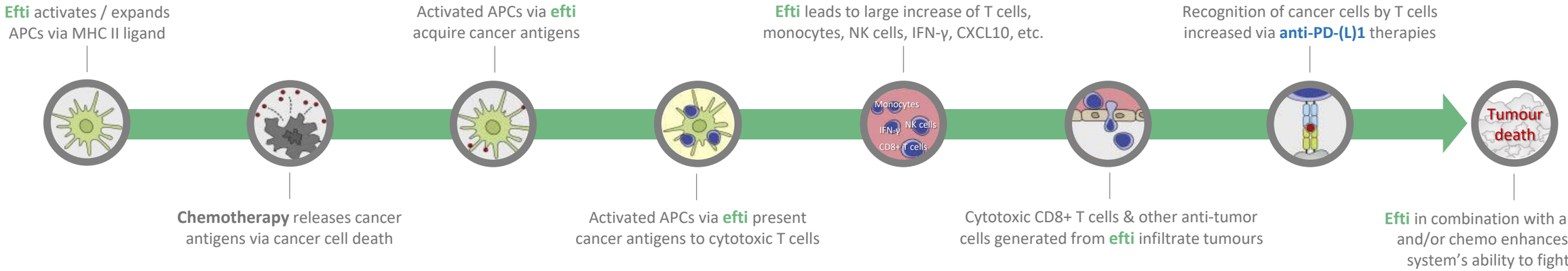


Efti + anti-PD-1 therapy

TACTI-002 Phase II Trial

Doubled overall response rates of pembrolizumab (KEYTRUDA®) in front line non-small cell lung cancer and in second line head & neck cancer

Efti + anti-PD-L1 therapy

INSIGHT-004 Phase I Trial

Encouraging 41.6% ORR with avelumab (BAVENCIO®) in solid tumours with PRs in low/negative PD-L1 patients & in typically IO insensitive indications

Efti + anti-PD-1 therapy

TACTI-mel Phase I Trial

Deep, durable responses in metastatic melanoma with 50% ORR at higher efti dosing levels; complete disappearance of target tumour lesions in several patients

Efti + chemotherapy

AIPAC Phase IIb Trial

Higher ORR/DCR vs placebo in metastatic breast cancer with OS improvement & sustained Quality of Life; pre-specified subgroups had significant OS improvement

Efti + anti-PD-1 + chemo

INSIGHT-003 Phase I Trial

Promising early results with 72.7% ORR rate & 90.9% DCR in evaluable front line non-small cell lung cancer patients

Graphic adapted from Chen & Mellman - Oncology Meets Immunology: The Cancer-Immunity Cycle: VOLUME 39, ISSUE 1, P1-10, JULY 25, 2013

Substantial Commercial Opportunity

Efti has doubled overall response rates of anti-PD-1 therapy (KEYTRUDA®), and also has shown encouraging signals of efficacy with anti-PD-L1 therapy (BAVENCIO®) and standard-of-care (SOC) chemotherapy. Its promise to safely improve outcomes for patients across the entire PD-L1 spectrum leads to significant commercial potential.

Anti-PD-1 Sales in 2021

$25.2 Billion

Anti-PD-L1 Sales in 2021

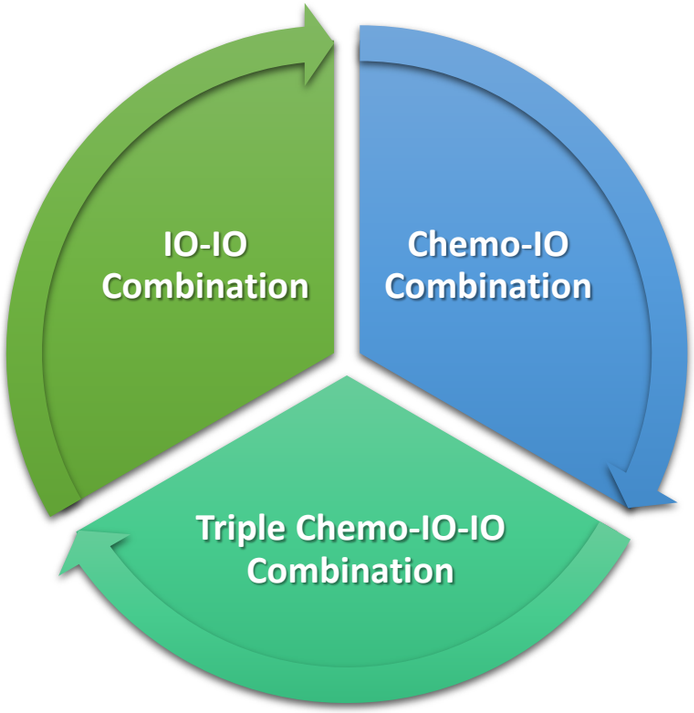
$6.3 Billion

Chemotherapy remains **SOC** in multiple solid tumor indications

Source of sales figures: Bloomberg and company reports. Approved anti-PD-1 therapies include pembrolizumab (KEYTRUDA®), nivolumab, cemiplimab, dostarlimab. Approved anti-PD-L1 therapies include atezolizumab, avelumab (BAVENCIO®), durvalumab.

Pipeline in a Product

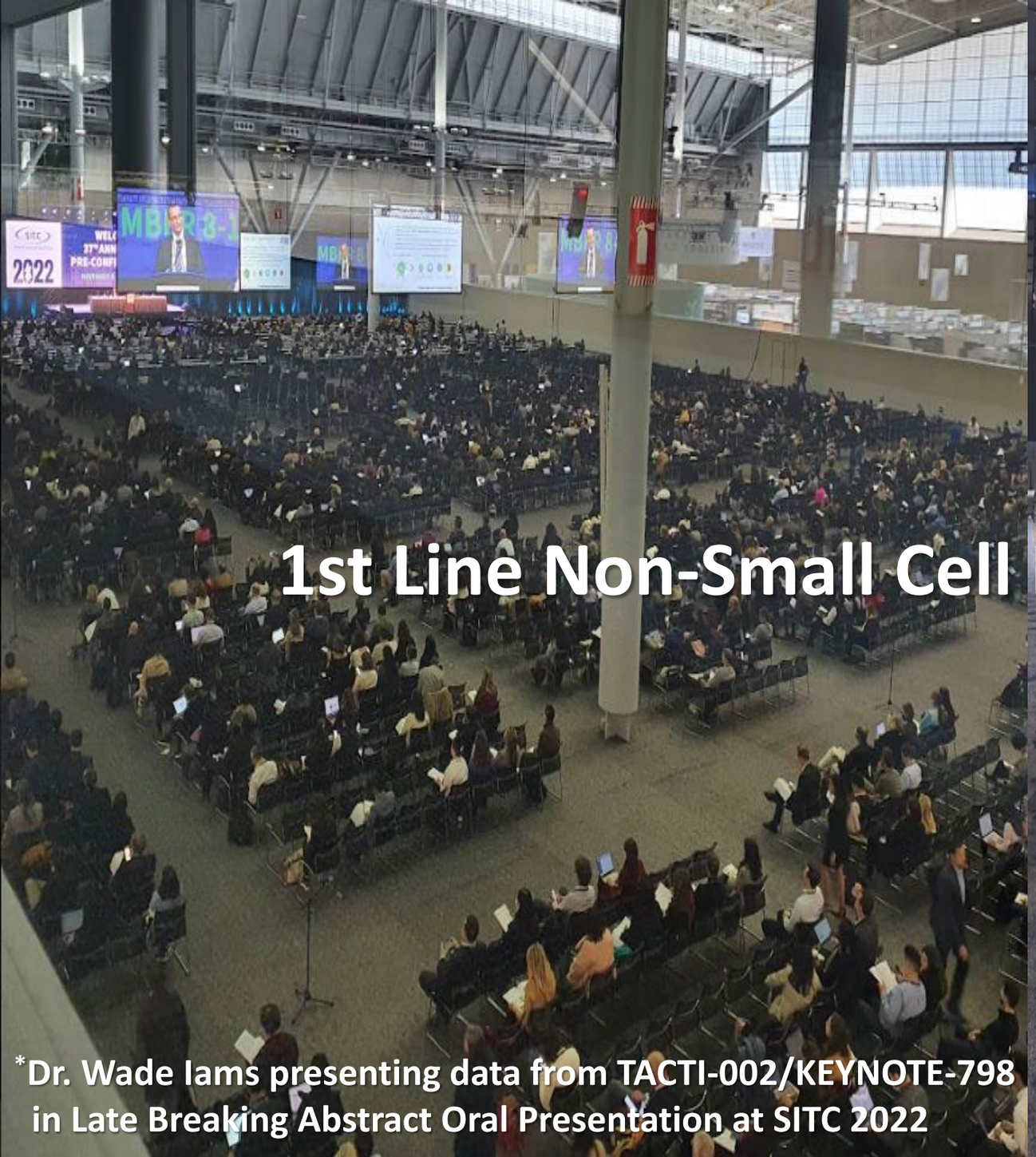
Efti Clinical Trials Confirm Broad Potential



	Preclinical	Phase I	Phase II	Late Stage*	
1st Line HNSCC		Efti + Pembrolizumab [a]			MERCK
1st Line NSCLC, 2nd Line HNSCC, PD-X Refractory 2nd Line NSCLC		Efti + Pembrolizumab [a]			MERCK
Metastatic Melanoma		Efti + Pembrolizumab [a]			
Urothelial Cancer		Efti + Avelumab [§, b]		Merck KGaA Darmstadt, Germany	Pfizer
Advanced Solid Tumours		Efti + Avelumab [§, b]		Merck KGaA Darmstadt, Germany	Pfizer
Soft Tissue Sarcoma		Efti + Pembrolizumab + Radiotherapy [§]			Narodowy Instytut Onkologii
HR+/HER2- MBC & TNBC		Efti + Paclitaxel			
1st Line NSCLC		Efti + Pembrolizumab + Chemo [§]			
Renal Cell Carcinoma		Efti Monotherapy [¥]			

Information in pipeline chart current as of December 2022. * Late stage refers to Phase IIb clinical trials or more clinically advanced clinical trials. § Investigator Initiated Trials controlled by lead investigator and therefore Immutep has no control over this clinical trial. [a] In combination with KEYTRUDA®. [b] In combination with BAVENCIO. ¥ First-in-man dose-escalation study of Efti monotherapy with doses ranging from 50µg, 250µg, 1.25mg, 6.25mg & 30mg given sub-Q every 2 weeks for 12 weeks in total.

1st Line Non-Small Cell Lung Cancer (1L NSCLC)



*Dr. Wade Iams presenting data from TACTI-002/KEYNOTE-798 in Late Breaking Abstract Oral Presentation at SITC 2022

*Dr. Enriqueta Felip presenting data from TACTI-002/KN-798 in Oral Presentation at ASCO 2022

Treatment Options in 1L NSCLC Limited by Durability & Tolerability

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1L NSCLC Epidemiology[1,2]

– 1.87 million NSCLC diagnoses per annum
– NSCLC is the highest cause of death among all cancers
– Immutep is focused on improving clinical responses for the 1.3 million patients that develop metastatic disease & are eligible to receive anti-PD-(L)1 therapy, e.g., pembrolizumab (KEYTRUDA®), nivolumab, cemiplimab, atezolizumab, etc.

Up to 80% patients do not respond to immune checkpoint inhibitor (ICI) monotherapy & **median OS still <24 months** for most patients

Patients with PD-L1 status <50%, representing **~70% of the NSCLC patient population**, have poorer responses to ICI therapy

ICI & chemo combinations have **limited Duration of Response** & **high discontinuation rates** due to toxicity

[1] Calculated from Global Cancer Observatory (WHO), 2020 data; [2] Informa Pharma Intelligence Report 2018 for US, Japan and EU5

Phase II Trial Evaluating Efti + Pembrolizumab (KEYTRUDA®) in 1L NSCLC

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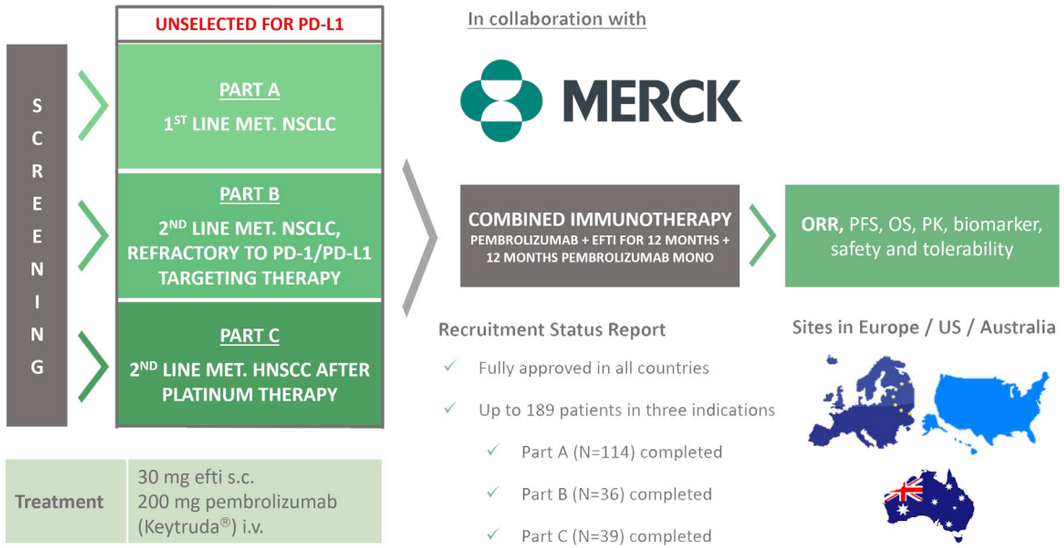
TACTI-002/KEYNOTE-798: 1st Line Non-Small Cell Lung Cancer (Part A)

TACTI-002: Two ACTive Immunotherapeutics in NSCLC & HNSCC



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

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	113 (99.1) / 1 (0.9)	
PD-L1 expression TPS, n[1] (%)		*Central only*	*Central + local*
	< 1%	32 (35.6)	37 (34.3)
	1-49%	38 (42.2)	42 (38.9)
	≥ 50%	20 (22.2)	29 (26.9)
Previous therapy, n (%)	Radiotherapy	38 (33.3)	
	Surgery	23 (20.2)	
	Systemic therapy for non-metastatic disease	26 (22.8)	

Efti + pembrolizumab received Fast Track Designation from FDA in ≥1% TPS in 1st Line NSCLC in October 2022

All-comer trial for 1L NSCLC patients with all levels of PD-L1 expression

- ~75% of patients have PD-L1 TPS of <50%
- ~34% of patients have PD-L1 TPS of <1%
- 99.1% had metastatic disease at study entry

Data cut-off July 1, 2022. [1] Central assessment of PD-L1 TPS using Dako PD-L1 IHC 22C3 pharmDx for 90 pts. For 18 pts, local assessment was used due to non-evaluable central assessment results. TPS: tumor proportion score.

Addressable PD-L1 Patient Populations in 1L NSCLC

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

1L NSCLC Patient Population by PD-L1 TPS Score*

TPS Score of 50% or higher represents ~30% of 1L NSCLC patients

TPS Score of 49% or lower represents ~70% of 1L NSCLC patients

Several IO/IO combo trials including Arcus/Gilead ARC-7 and Roche's CITYSCAPE are focused on this addressable 1L NSCLC patient population with PD-L1 TPS >50%**

119,000
1L NSCLC patients

378,000
1L NSCLC patients

Immutep's IO/IO all-comer PD-L1 TACTI-002 Phase II trial focused on this addressable 1L NSCLC patient population with PD-L1 TPS 0-100%**

>$10 Billion Addressable Market

Sources: * KN-189, KN-407, EMPOVER-Lung 3, TACTI-002 all comer trials. ** Addressable 1L NSCLC population by PD-L1 TPS reflects US, EU, Japan, Canada & Australia markets based on: [1] Global Cancer Observatory (2020) and Company estimates. [2] Informa Datamonitor Healthcare, NSCLC Epidemiology Forecast, 2018. [3] S Moore et al.: Survival Implications of De Novo Versus Recurrent Metastatic Non–Small Cell Lung Cancer. Am J Clin Oncol 2019;42:292–297. [4] H Sasaki et al.: Prognosis of recurrent non-small cell lung cancer following complete resection. ONCOLOGY LETTERS 7: 1300-1304, 2014. [5] H Uramoto et al.: Recurrence after surgery in patients with NSCLC. Transl Lung Cancer Res 2014;3(4):242-249

Compelling Clinical Results; Primary Objective Achieved

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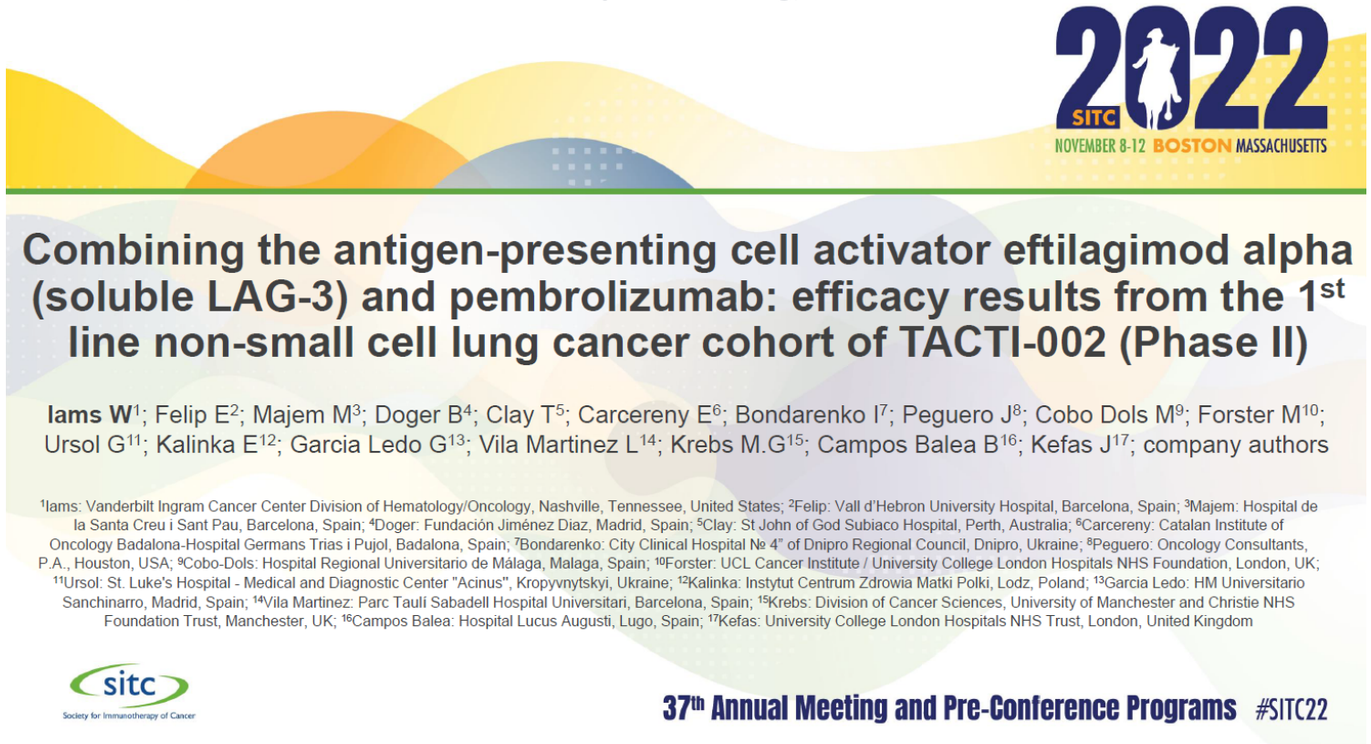
TACTI-002/KEYNOTE-798: 1L NSCLC (Part A)

TACTI-002 Phase II (1L NSCLC) Clinical Data and Key Takeaways

- 40.4% overall response rate (ORR); primary objective achieved
- Robust interim median Duration of Response: 21.6 months
- Promising interim median Progression Free Survival (PFS): 6.6 months overall & 9.3 months PFS in TPS >1%
- Efti + pembrolizumab shows superior ORR/PFS across all PD-L1 levels versus pembrolizumab monotherapy
- Efti + pembrolizumab was well tolerated and combination's safety profile is similar to pembrolizumab monotherapy
- Efti has potential to substantially increase the number of patients who respond to anti-PD-1 therapy given strong responses in patients with <50% PD-L1 TPS that represent ~70% of the 1L NSCLC patient population

SITC 2022 Oral Presentation (Late-Breaking Abstract was among nine abstracts, out of +1,500 submissions, to be showcased at the SITC press briefing)



Source: SITC 2022 Late-Breaking Oral Presentation Abstract: Combining the antigen-presenting cell activator eftilagimod alpha (soluble LAG-3) and pembrolizumab: efficacy results from the 1st line non-small cell lung cancer cohort of TACTI-002 (Phase II) Link to poster

Deep and Durable Responses

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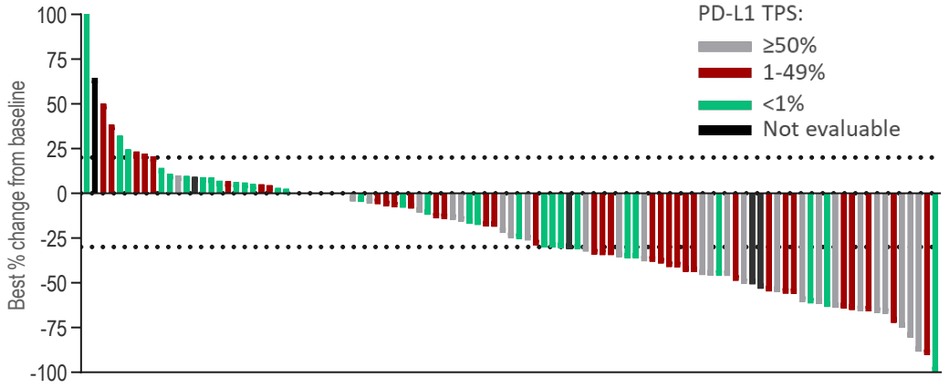
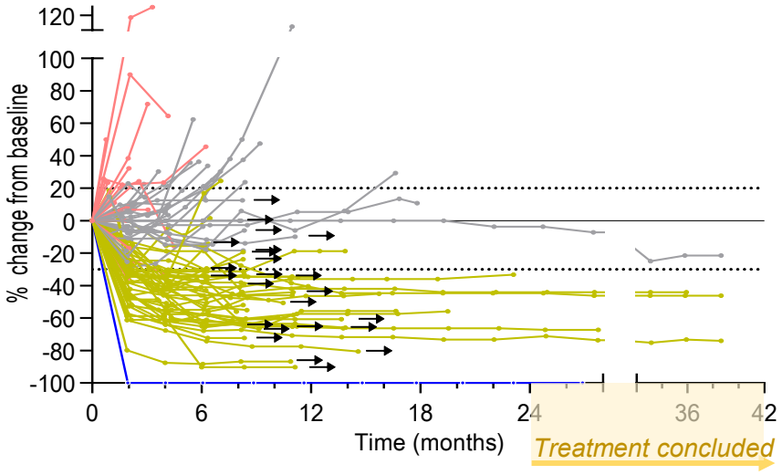
TACTI-002/KEYNOTE-798: 1L NSCLC (Part A)

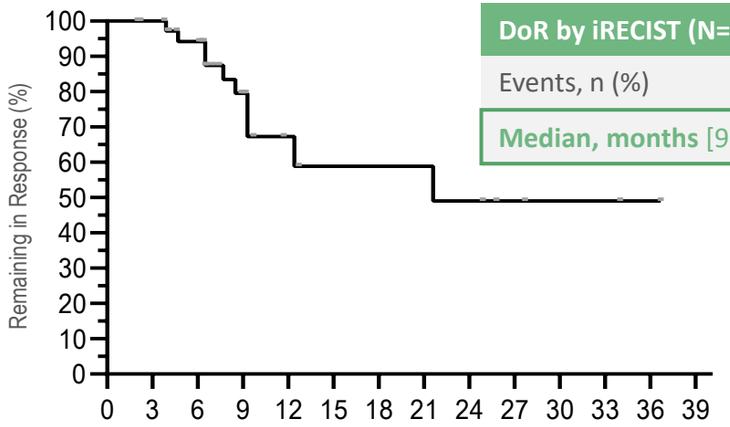
Tumor Burden Reduced in Majority of Patients



Change in Tumor Size Over Time[1]



Interim Median Duration of Response (DoR)[2, 3]



DoR by iRECIST (N=40)	
Events, n (%)	10 (25.0)
Median, months [95% CI][4]	**21.6** [17.3-30.0]

- Responses are deep and across all PD-L1 subgroups
- Response onset is early & responses are long-lasting
- Strong interim mDoR 21.6 months
- ~70% patients have decrease of target lesions
- Under 10% of responding patients progress within 6 months

Data cut-off July 1, 2022 [1] all pts with ≥1 post-baseline CT scan with evaluable response; N=101. Pts are listed with iPR / iCR response regardless if confirmed or unconfirmed. [2] by iRECIST. [3] all patients with confirmed response by iRECIST. [4] 95% confidence intervals calculated using Clopper-Pearson method

Promising Progression Free Survival (PFS)

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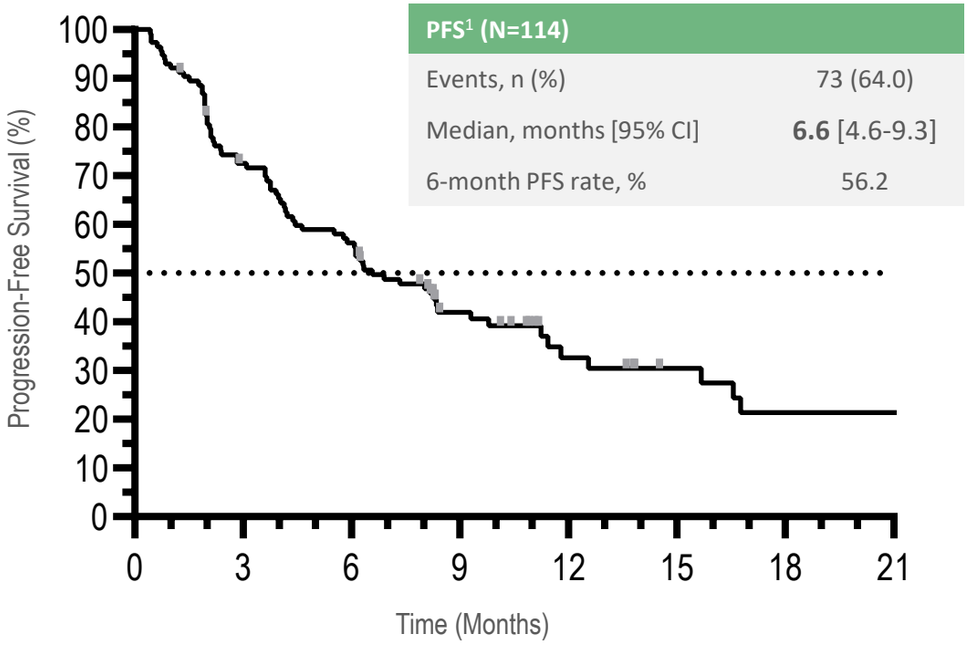
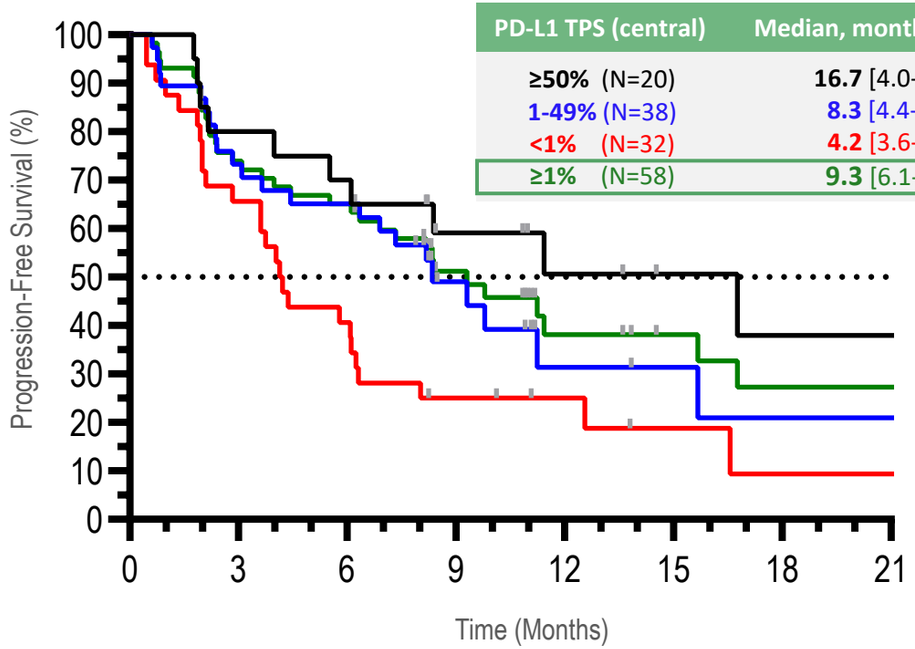
TACTI-002/KEYNOTE-798: 1L NSCLC (Part A)

PFS[1] – PD-L1 all comer (ITT)



PFS[1] (N=114)	
Events, n (%)	73 (64.0)
Median, months [95% CI]	**6.6** [4.6-9.3]
6-month PFS rate, %	56.2

PFS[1] by PD-L1 status



PD-L1 TPS (central)	Median, months [95% CI]	Events, n (%)
≥50% (N=20)	**16.7** [4.0-16.8]	10 (50.0)
1-49% (N=38)	**8.3** [4.4-15.7]	23 (60.5)
<1% (N=32)	**4.2** [3.6-6.1]	26 (81.3)
≥1% (N=58)	**9.3** [6.1-15.7]	34 (58.6)

Efti + pembrolizumab has Fast Track status in PD-L1 TPS ≥1%

Data cut-off July 1, 2022 [1] by iRECIST. [2] 95% confidence intervals calculated using Clopper-Pearson method. *mPFS of central (N=90) & local assessment (N=18) was 9.8 months for PD-L1 TPS ≥1%, 8.3 months for PD-L1 TPS 1-49%, 11.8 months for PD-L1 ≥50%, and 4.2 months for PD-L1 <1%
Note: figures have been cropped for visualization purposes

Benchmarking against Pembrolizumab Monotherapy: Strong ORR/PFS Across Entire PD-L1 Spectrum vs Pembrolizumab

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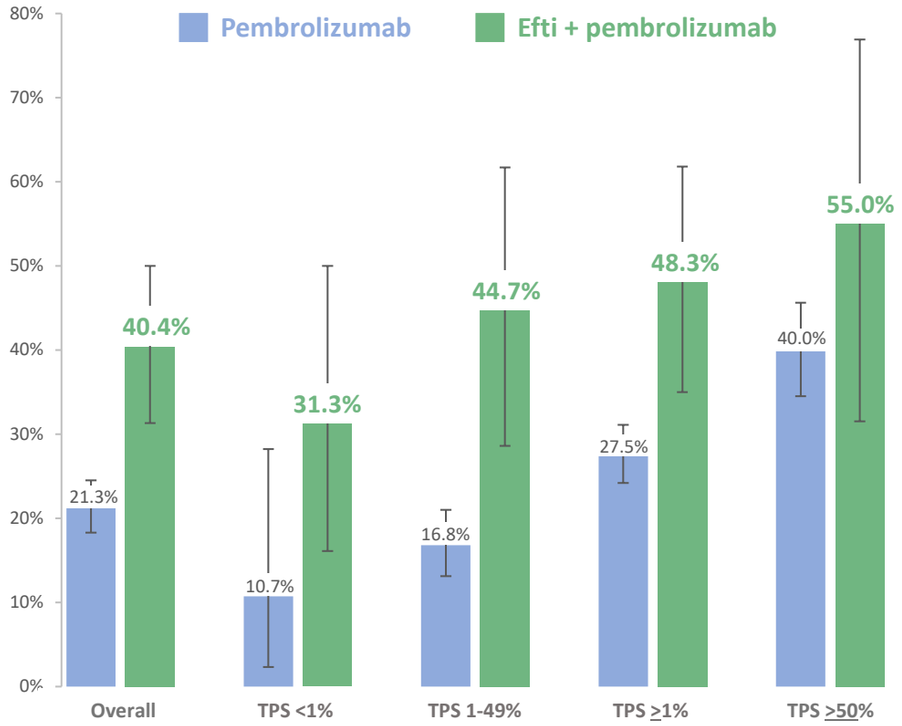
TACTI-002/KEYNOTE-798: 1L NSCLC (Part A)

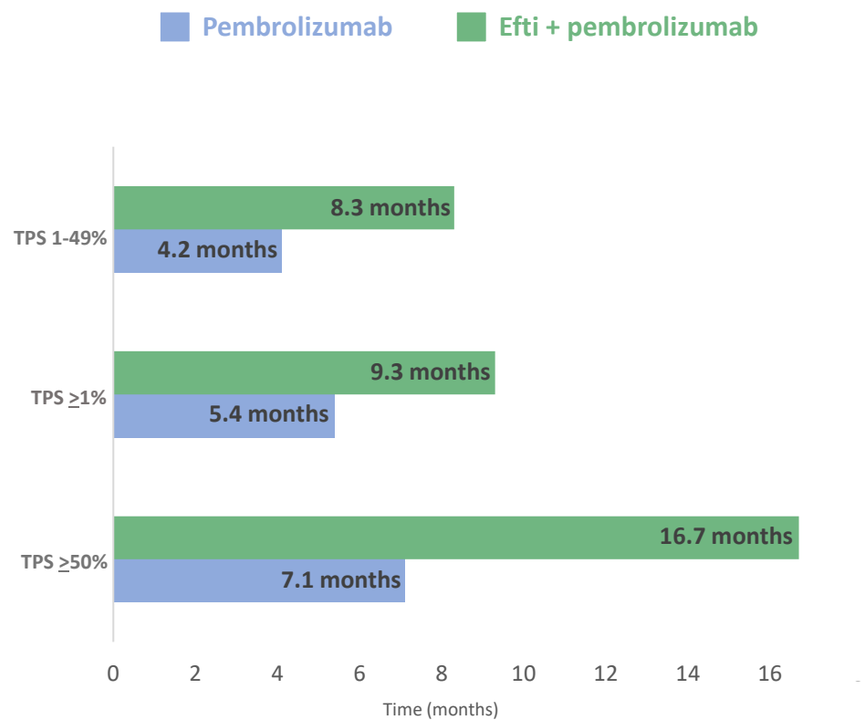
Overall Response Rate* (ORR)

(with 95% confidence interval)



Median Progression Free Survival# (PFS)

(by PD-L1 TPS Score)



* Efti + pembrolizumab ORR by iRECIST, unconfirmed, Total (N=114) and PD-L1 TPS subgroups (N=90). Data cut-off July 1, 2022. Pembrolizumab monotherapy 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=90) using central assessment for 90 patients. Pembrolizumab monotherapy 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

Benchmarking against Pembrolizumab Monotherapy and Pembrolizumab-Chemotherapy Combination in 1L NSCLC

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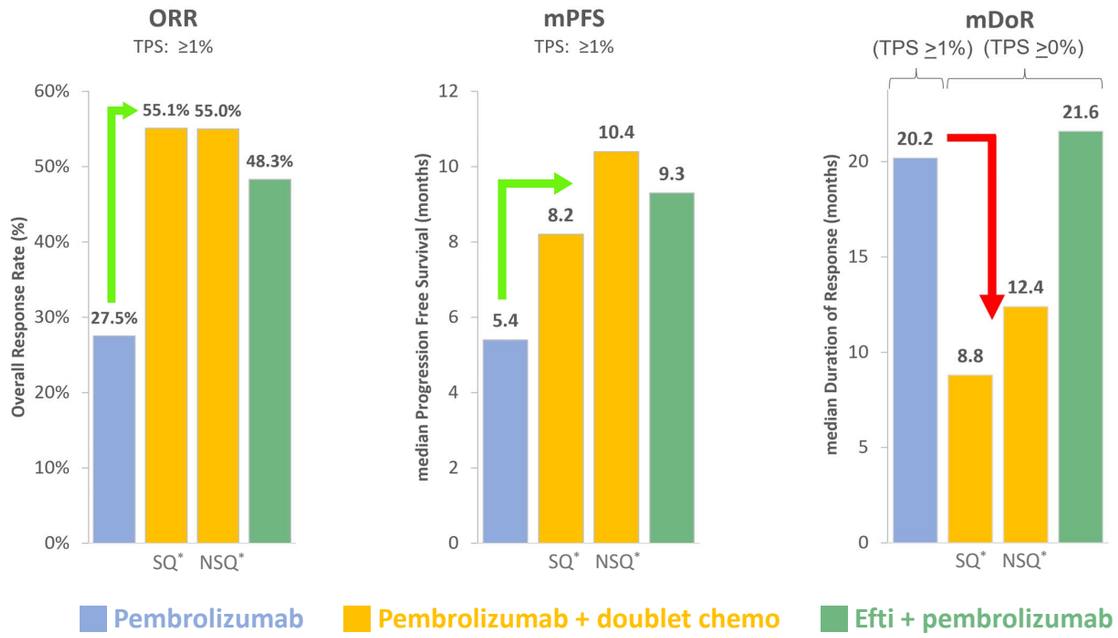
TACTI-002/KEYNOTE-798: 1L NSCLC (Part A)



	ORR	PFS	DoR
Efti + pembrolizumab	High	High	High*
Pembrolizumab	Low	Low	High*
Pembrolizumab + chemo	High	High	Low

*Note 34% patients in TACTI-002 have PD-L1 TPS <1% while all pembrolizumab monotherapy patients have PD-L1 TPS ≥1%

Efti + pembrolizumab has significant promise as a chemo-free therapy, with a favourable safety profile inline with pembro monotherapy, to positively impact 1L NSCLC patient outcomes across all PD-L1 expression levels

* SQ = Squamous; NSQ = Non-squamous. ORR, mPFS and DoR data for pembrolizumab was derived from respective publications of KN-001; KN-042; KN-407; KN-189.

IO + IO + Chemo Combination Trial (INSIGHT-003)

INSIGHT-003: Phase I in Solid Tumors Focusing on NSCLC Adenocarcinomas

INSIGHT-003 - Third arm (Stratum C) of ongoing investigator-initiated study focusing on 1st Line NSCLC patients

- Evaluating triple combination therapy consisting of efti in conjunction with carboplatin/pemetrexed & anti-PD-1 therapy to assess safety, tolerability and initial efficacy
- 14 of 20 metastatic NSCLC patients have been enrolled[1]
- Triple combination well tolerated & appears to be safe
- Promising early results with **72.7% response rate** and **90.9% disease control rate** in evaluable (N=11) 1st line NSCLC patients. 81.8 % patients had PD-L1 TPS <50% with ORR of 66.7 %

Initial Efficacy

Tumor Response according to RECIST 1.1 (N=11)	N, (%)
Complete Response (CR)	0 (0)
Partial Response (PR)	**8 (72.7%)**
Stable Disease (SD)	2 (18.2%)
Progressive Disease (PD)	1 (9.1%)
Objective Response Rate (ORR)	8 (72.7%)
Disease Control Rate (DCR)	**10 (90.9%)**

Interim Safety

Safety Parameter (N=14)	N, (%)
Most Frequent AEs	1 (9.1)
Neutrophil count decreased (grade 1-4)	11 (78.6)
White blood cell decreased (grade 1-4)	9 (64.3)
Platelet count decreased (grade 1-3)	8 (57.1)
Anemia (grade 1-3)	8 (57.1)
Patients with at least one SAE	4 (28.6)
Patients with at least one SAE related to study treatment	1 (7.1)

"Efti has accumulated an excellent safety profile to date, driving its high suitability for combination with standard of care therapies to address areas of unmet need for cancer patients. INSIGHT-003 represents the first triple combination therapy consisting of efti plus anti-PD-1 and chemo, and we are pleased with these promising, early results." - Prof. Dr. Salah-Eddin Al-Batran, Lead Investigator

Source: SITC 2022 Poster - Feasibility of eftilagimod alpha (soluble LAG-3 protein) combined with standard-of-care-therapy in advanced non-small-cell lung cancer (NSCLC). Initial results from INSIGHT 003". [1] 14th Oct 2022 data cut off.

Additional Clinical Indications with Efti and Anti-PD-(L)1 Therapy or Chemotherapy

Focusing Efti on Indications with High Unmet Needs

Efti Late-Stage Clinical Development

Head and Neck Squamous Cell Carcinoma (HNSCC)

– There are ~900K cases and >400K deaths per annum in HNSCC[1]
– Pembrolizumab (KEYTRUDA®) with chemotherapy is approved for 1st line HNSCC and pembrolizumab monotherapy is approved for patients whose tumors express PD-L1 (CPS ≥1)[2]
– Immutep is focused on improving responses in 1L HNSCC patients where efti has received Fast Track designation from the FDA

HR+/HER 2- Metastatic Breast Cancer (MBC)

– In 2020, there were 2.3 million women diagnosed with breast cancer and 685,000 deaths globally[3]
– HR+/HER 2- is the most common type of breast cancer and accounts for ~68% of new cases[4]
– Immutep is focused on improving clinical responses for patients to SOC chemotherapy

Triple Negative Breast Cancer (TNBC)

– Clinically aggressive sub-type of breast cancer that accounts for ~15-20% of breast tumors[5]
– TNBC is more commonly diagnosed in women younger than 40 years[6]
– Immutep is focused on improving clinical responses for patients to SOC chemotherapy

Efti Earlier Stage Clinical Development

Urothelial Cancer, Soft Tissue Sarcoma, and other solid tumor indications

[1] Global Cancer Observatory. International Agency for Research on Cancer. World Health Organization. [2] FDA approval based on KN-048 (ORR, mOS, mDoR data from KN-048 trial). [3] World Health Organization; Breast Cancer Fact Sheet. [4]Cancer Stat Facts: Female Breast Cancer Subtypes - NCI SEER.
[5] Front. Mol. Biosci., 19 August 2022, Sec. Molecular Diagnostics and Therapeutics https://doi.org/10.3389/fmolb.2022.903065. [6] The epidemiology of triple-negative breast cancer, including race. Cancer Causes Control. 2009 Sep;20(7):1071-82. doi: 10.1007/s10552-009-9331-1.

Robust ORR/CR with Long-Lasting Efficacy in 2nd Line Head & Neck Squamous Cell Carcinoma (2L HNSCC)

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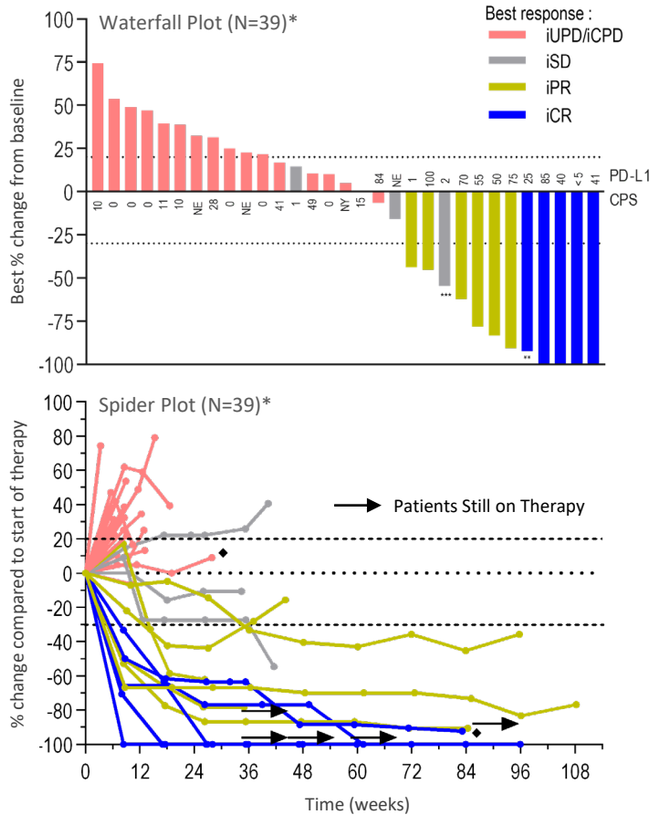
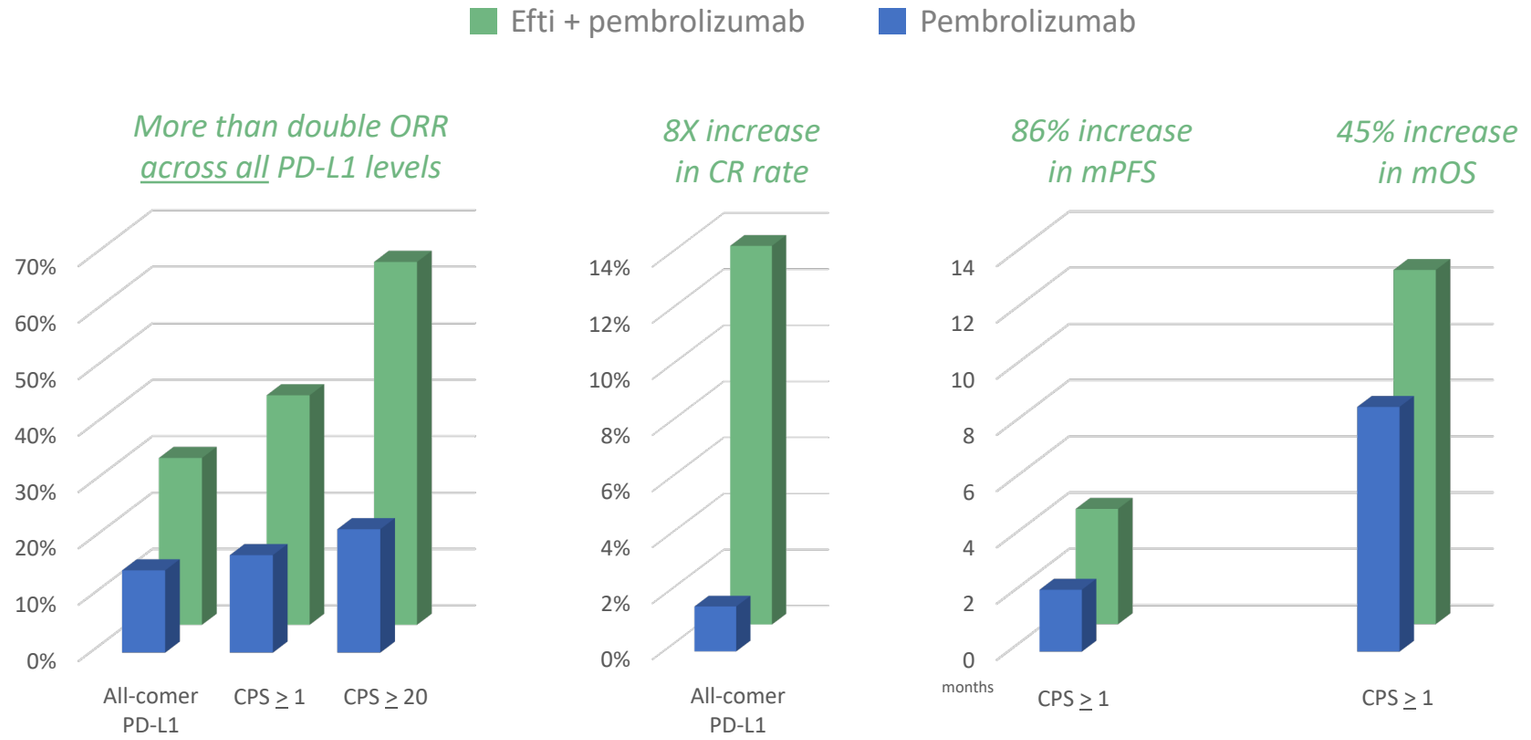
TACTI-002/KEYNOTE-798: 2L HNSCC (Part C)

Efti + pembrolizumab led to durable & robust efficacy, including 5 Complete Responses, across all PD-L1 levels



Benchmarking efti + pembrolizumab (KEYTRUDA) against pembrolizumab monotherapy in 2L HNSCC*



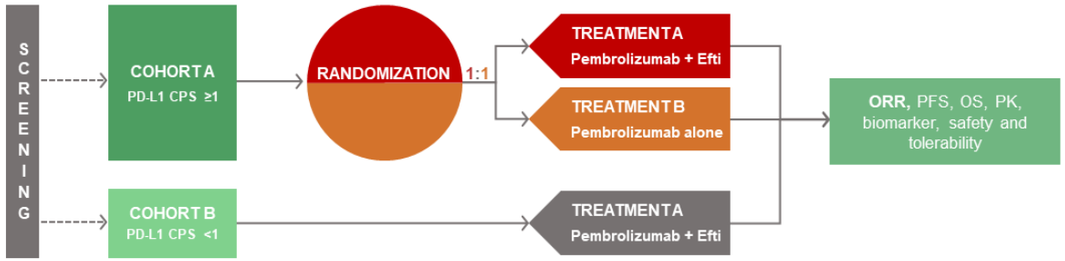
*Data for efti + pembrolizumab (N=39) from SITC 2021 with data cut-off date of Aug 4, 2021. Data for Keytruda (N=247) derived from KN040 (EEW Cohen et al., *The Lancet* 2018). ORR of 29.7%, 40.7% and 64.3% respectively for Efti+Pembro in all-comer PD-L1, CPS ≥1, and CPS ≥20 as compared to 14.6%, 17.3%, and 21.9% respectively for pembrolizumab monotherapy. CR rate of 13.5% for Efti+Pembro as compared to 1.6% for pembrolizumab monotherapy. mPFS of 4.1 months for Efti+Pembro in CPS ≥1 as compared to 2.2 months for pembrolizumab monotherapy. mOS of 12.6 months for Efti+Pembro in CPS ≥1 as compared to 8.7 months for pembrolizumab monotherapy.

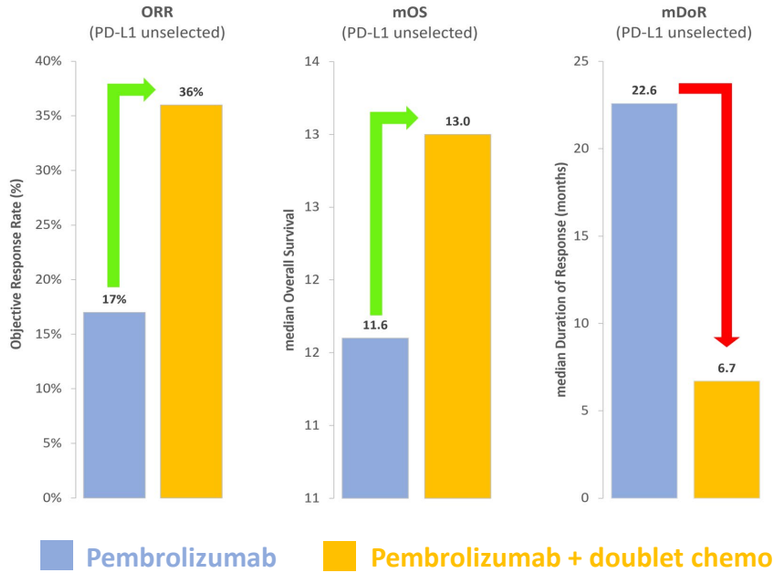
Fast Track Designation in 1L HNSCC

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

TACTI-003 - Randomized Phase IIb Trial in 1L HNSCC patients utilizing Efti + pembrolizumab vs. pembrolizumab alone

- Efti received FDA Fast Track in 1L HNSCC on strength of TACTI-002 data in 2L HNSCC
- Recruiting: +50% enrolled; >25 sites activated & enrolment increasing
- Independent Data Monitoring Committee (IDMC) recommended continuing trial with no modifications after review of initial safety data; IDMC also reviewed efficacy data yet was not primary focus of analysis





The higher ORR & mOS achieved from adding doublet chemo to pembrolizumab (KEYTRUDA®) in 1L HNSCC* negatively impacts duration of response (mDoR). Therefore, efti + pembrolizumab has significant potential as a *chemo-free treatment* to drive higher ORR & mOS in 1L HNSCC without sacrificing mDoR.

* Pembrolizumab with chemo approved for 1st line HNSCC and pembrolizumab monotherapy approved for patients whose tumors express PD-L1 (CPS ≥1). FDA approval based on KN-048 (ORR, mOS, mDoR data from KN-048 trial)

Metastatic Breast Cancer (MBC): Driving OS & QoL Improvement

AIPAC: Active Immunotherapy PAClitaxel in HER2–/ HR+ MBC Phase IIb Trial

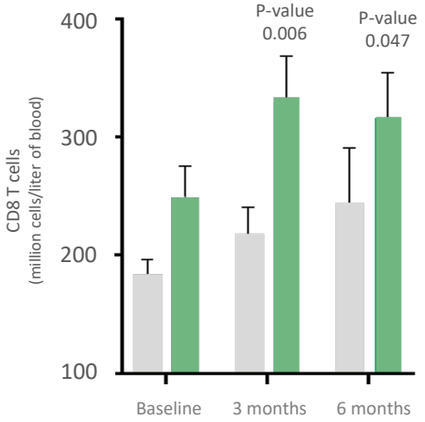
AIPAC-002: Multicenter, placebo-controlled, double-blind, 1:1 randomized Phase IIb study; 226 HER2–/ HR+ MBC patients randomized to efti (N=114) or placebo (N=112)

- Efti + paclitaxel had ORR & DCR of 48.3% / 85.1% vs placebo 38.4% / 75.9% with a +2.9-month OS improvement and superior Quality of Life (QoL). Significant OS improvement in pre-specified subgroups:
  - ✓ Low monocytes: +19.6 months mOS, HR 0.44, P-value=0.008
  - ✓ Under 65 years: +7.5 months mOS, HR 0.66, P-value=0.017
  - ✓ Luminal B: +4.2 months mOS, HR 0.67, P-value=0.049

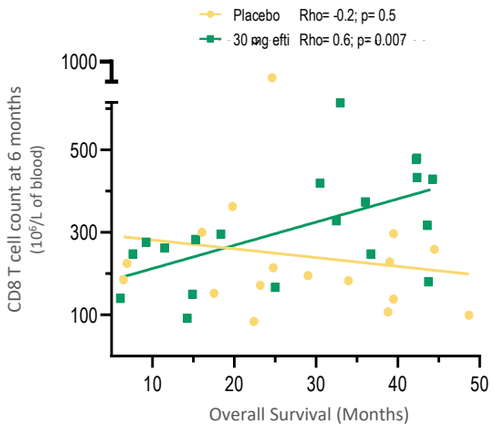
AIPAC-003: Upcoming Phase II/III trial

- Agreement with FDA on trial design for upcoming AIPAC-003 Phase II/III trial for the treatment of MBC, and on expanding patient population to include triple-negative breast cancer (TNBC)**
  - ✓ Unlike previous trial, AIPAC-003 patients will receive efti & paclitaxel on same day and treatment will continue until disease progression
  - ✓ Subject to regulatory and ethic committee feedback, the Phase II portion of the AIPAC-003 trial is expected to begin during Q1'2023

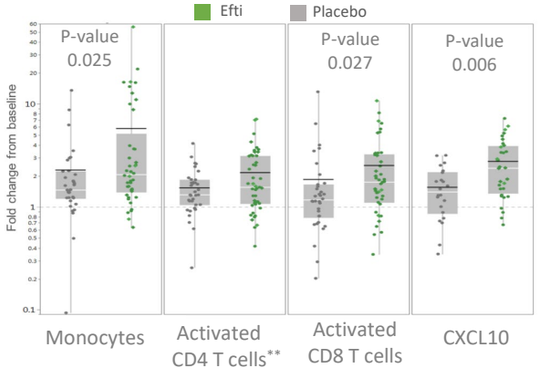
Statistically-Significant Increase of Cytotoxic CD8⁺ T Cell Count



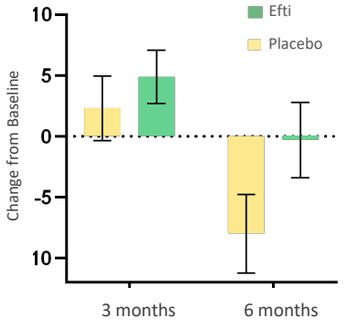
Statistically-Significant Correlation: OS & Cytotoxic CD8⁺ T cell count



Statistically-Significant Increase in Monocytes, CD8⁺ T Cells & CXCL10



Sustained Quality of Life*



Biomarker and multivariate analyses results from AIPAC: A phase IIb study comparing eftilagimod alpha (a soluble LAG-3 protein) to placebo in combination with weekly paclitaxel in HR + HER2 - metastatic breast carcinoma – ESMO 2022; *Quality of Life (QoL) as measured by Global Health Status/ QoL QLQC30-B23; ** As announced on 23 December 2022 in 'Immutep Announces Successful Meeting with the FDA on Eftilagimod Alpha plus Chemotherapy for the Treatment of Metastatic Breast Cancer' press release

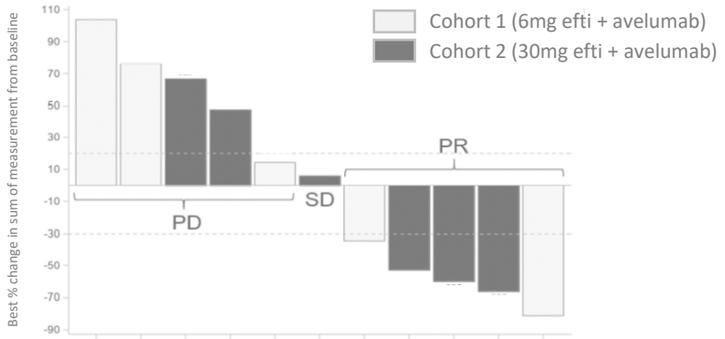
Efti + Anti-PD-L1 (Avelumab) in Urothelial Cancer & Advanced Solid Tumors

INSIGHT-004: Phase I in Various Advanced Solid Tumors & INSIGHT-005: Phase I in Metastatic Urothelial Cancer

Merck KGaA Darmstadt, Germany

INSIGHT-004 - Phase I dose escalation study in advanced solid tumors

- Efti in combination with avelumab (BAVENCIO®) safe with promising signals of efficacy
- Deep & durable responses in patients with low/no PD-L1 expression and in non-immunogenic tumors
- 5/12 partial responses (42%) in different solid tumors**



INSIGHT-005 - Phase I study in metastatic urothelial cancer

- Investigator-initiated, open-label study evaluating safety & efficacy of efti, in combination with avelumab (BAVENCIO®) in up to 30 patients with metastatic urothelial cancer
- Study is jointly funded by Immutep and Merck KGaA, Darmstadt, Germany
- Expansion into urothelial cancer builds on core strategy to increase target indications to exploit efti's full potential
- First patient expected to be enrolled & dosed in first half of CY2023

*ASCO 2021: J Clin Oncol 39, 2021 (suppl 15; abstr 2518); DOI 10.1200/JCO.2021.39.15_suppl.2518. **(1) MSI high colorectal cancer; (2) pleural mesothelioma; (3) after radio-chemo in squamous anal cell; (4) pre-treated squamous cervical cancer (PD-L1 TPS < 1%) carcinoma; (5) gastroesophageal junction

Treating PD-X Refractory Patients

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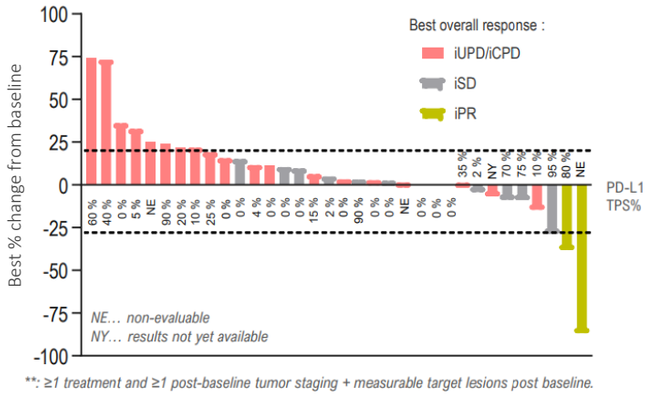
TACTI-002/KEYNOTE-798: 2nd Line NSCLC, PD-X Refractory (Part B)

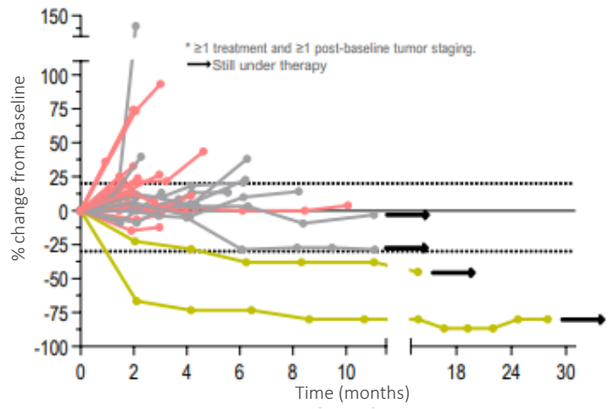
TACTI-002 Part B: 2nd Line NSCLC, PD-X Refractory

- Very difficult-to-treat patient population with confirmed progression after anti-PD-1/PD-L1 therapy and 67% patients receiving doublet chemo + anti-PD-1/PD-L1 in 1st line setting
- Despite ~75% patients having PD-L1 TPS <50%, encouraging early OS data with 6-months landmark analysis showing 73% survival rate, a 36% DCR rate and 26% being progression free
- Median OS (mOS) of 9.6 months in PD-L1 TPS of 1-49% (N=14); mOS not yet reached in PD-L1 TPS of >50% (N=6)
- 2 confirmed and durable PRs (9+ and 23+ months)
- L-term (6+ months) disease control in 25% patients and 36.5% patients alive at 18 months
- Combination safe & well tolerated

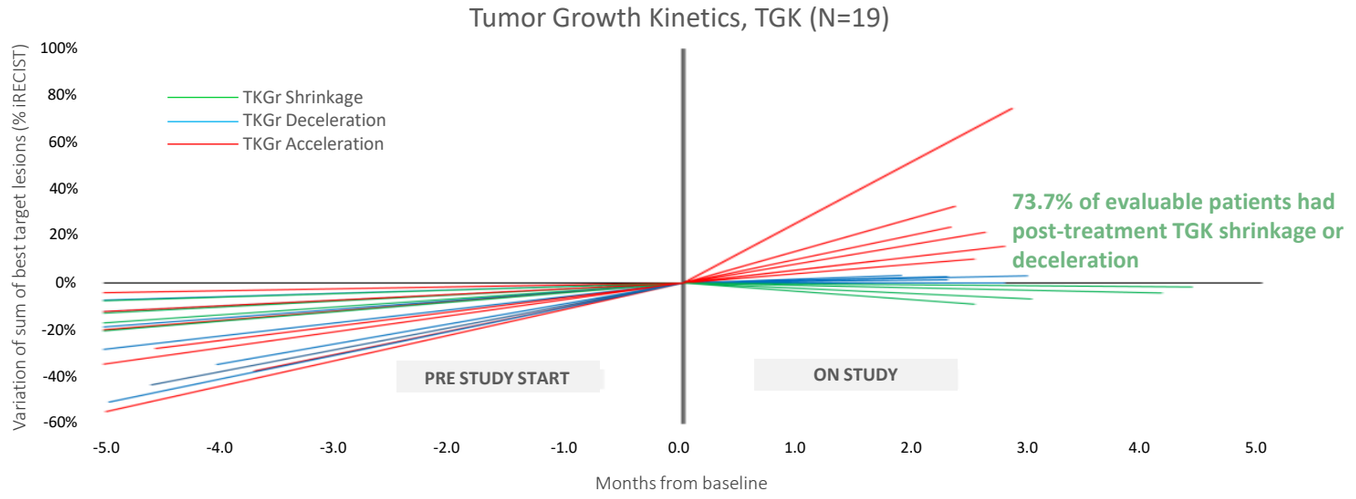
Waterfall Plot (N=34)*



Spider Plot (N=34)*



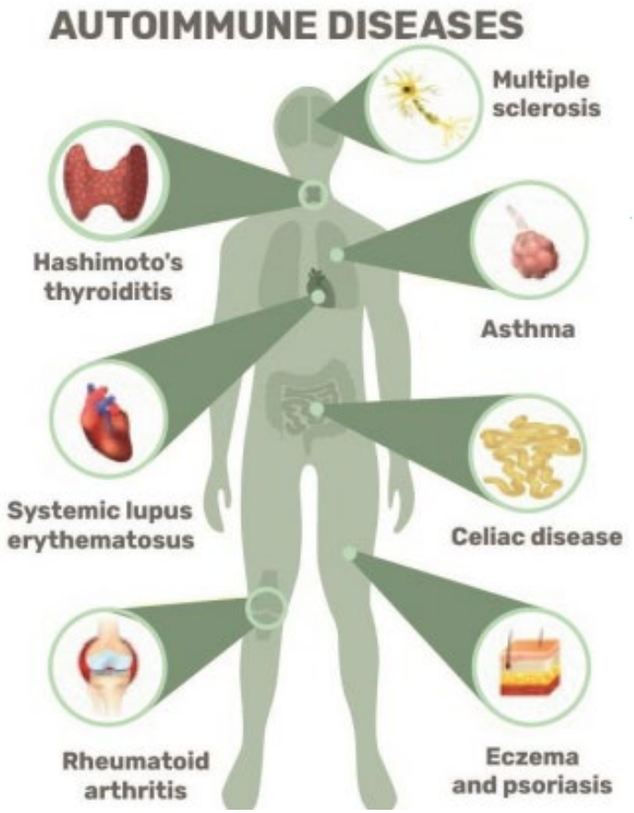
Tumor Growth Kinetics, TGK (N=19)



*Local investigator read, confirmed **No post-baseline scan available

IMP761: LAG-3 Therapeutic for Autoimmune Diseases

LAG-3: A Key Target in Autoimmune Diseases



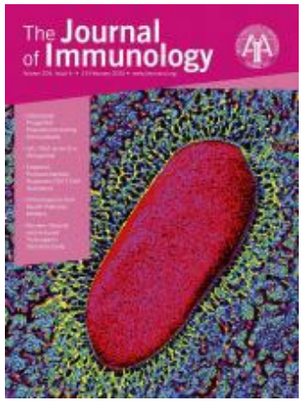
Present Approaches Fight the Symptoms of Autoimmune Diseases

Treating general inflammation:
Corticoids, methotrexate, anti-TNF-α,
-IL-6, -IL-17, -IL-23 mAbs

Future Approaches Target the Causes of Autoimmune Disease

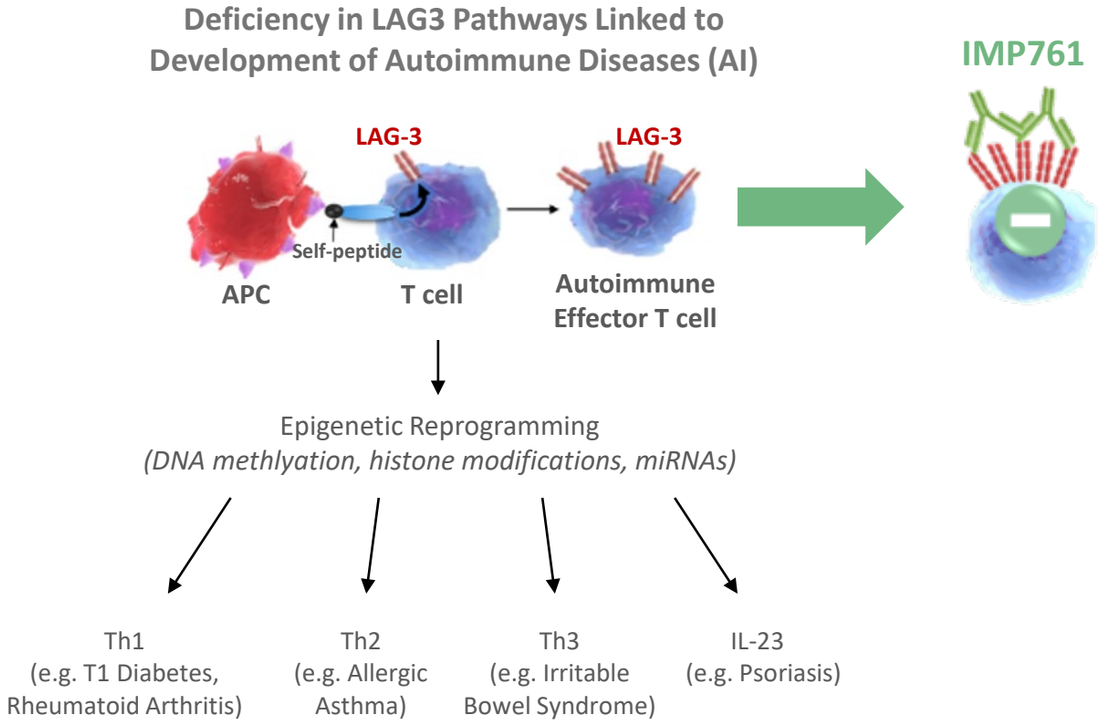
Treating the disease process:
Targeting autoimmune memory T cells
with depleting or agonist LAG-3 antibodies

IMP761: Broad Potential Targeting Auto-Reactive Memory T Cells



A LAG-3–Specific Agonist Antibody for the Treatment of T Cell–Induced Autoimmune Diseases

Mathieu Angin, Chrystelle Brignone and Frédéric Triebel
J Immunol January 6, 2020, ji1900823

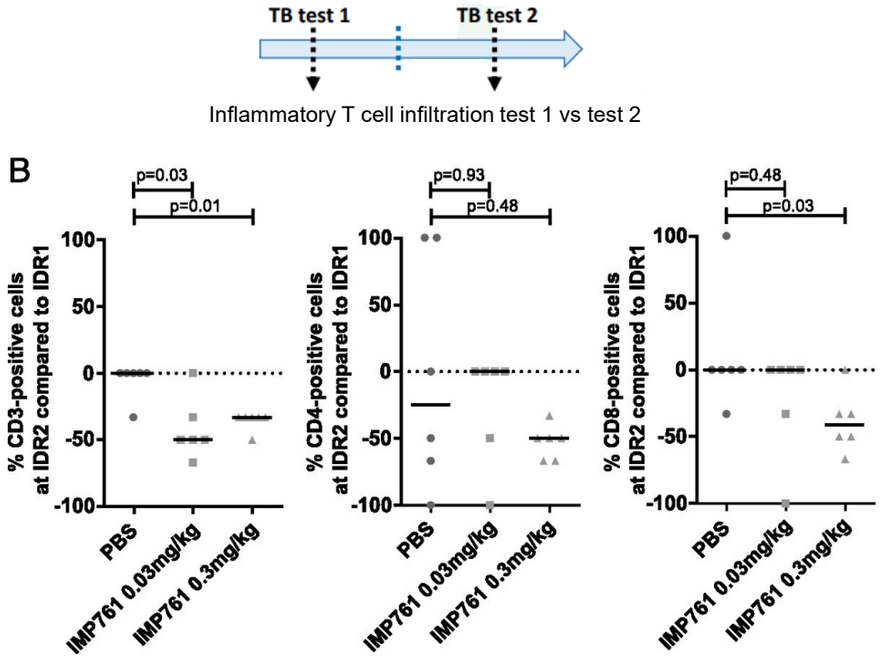


IMP761, a **first-in-class LAG-3–specific agonist antibody** acting upstream on activated T cells, the root cause of self-Ag–specific T cell induced disease, is a **potential game-changer** in AI.

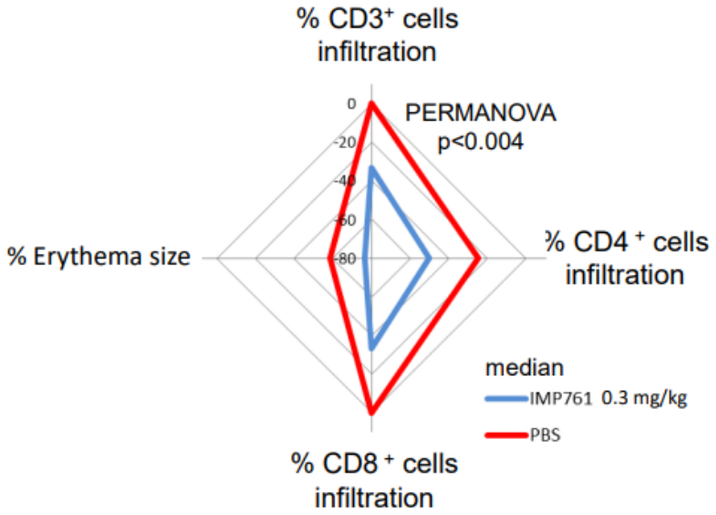
J Immunol January 6, 2020, ji1900823; DOI: https://doi.org/10.4049/jimmunol.1900823

IMP761 Inhibits Inflammatory T cell Infiltration *In Vivo*

IMP761 significantly inhibits T cell infiltration of an antigen-specific intradermal reaction *in vivo* in an Ag-specific delayed-type hypersensitivity (DTH) model in non-human primate study



Percentage of CD3-, CD4-, and CD8-positive cells at IDR2 compared with IDR1 in cynomolgus macaques that received PBS control (circle) and IMP761 at 0.03 mg/kg (square) or 0.3 mg/kg (triangle).



J Immunol January 6, 2020, ji1900823; DOI: https://doi.org/10.4049/jimmunol.1900823

Board and Management

Dr Russel Howard
Non-Executive Chairman

Dr Howard has over 45 years experience in Australian & US biotech sectors, including the Walter & Eliza Hall Institute, Schering-Plough, GSK and as Maxygen CEO. He currently is Chairman of NeuClone Pty Ltd and a former Director of Circadian Technologies Ltd.

Pete Meyers
Deputy Chairman

Mr Meyers spent 18 years in health care investment banking before taking on CFO roles in biotechnology, including Eagle Pharmaceuticals, Inc, TetraLogic Pharmaceuticals Corp, and Motif BioSciences Inc. Based in New York, he is currently CFO of Slayback Pharma.

Lucy Turnbull, AO
Non-Executive Director

Lucy Turnbull is a distinguished businesswoman, philanthropist and former politician with a background in commercial law and investment banking. She has served on the boards of the NSW Cancer Institute, the Sydney Children's Hospital Foundation, and the Sydney Cancer Centre.

Marc Voigt
Executive Director & CEO

Mr Voigt has over 25 years of experience in the corporate and biotechnology sectors, including Deutsche Life Science, Revotar Biopharmaceuticals AG, Medical Enzymes AG and Allianz. He was appointed as CEO and Executive Director in July 2014. Mr Voigt is based in Berlin.

Prof. Frédéric Triebel, MD Ph.D.
Executive Director, CSO & CMO

Prof Triebel discovered the LAG-3 gene while working at the Gustave Roussy Institute and is a pioneer in the LAG-3 field of immuno-oncology. He was the founder of Immutep S.A., which was acquired by the Company in 2014. Based in Paris, he holds a Ph.D. in immunology (Paris University).

Deanne Miller
COO, General Counsel

Ms Miller has broad commercial experience having held legal, investment banking, regulatory compliance and tax advisory positions at RBC Investor Services, Westpac Group, Macquarie Group, the Australian Securities and Investment Commission, and KPMG.

Christian Mueller
VP, Strategic Development

Mr Mueller has +10 years of clinical development experience in oncology, including at Medical Enzymes AG focusing on therapeutic enzymes for cancer treatment and at Ganymed Pharmaceuticals AG developing ideal mAbs in immune oncology.

Claudia Jacoby, Ph.D.
Director of Manufacturing

Dr Jacoby has +15 years of biotech industry experience with extensive skills in protein expression and purification as well as in analytical and preclinical development from her various positions at pre-clinical and clinical-stage pharmaceutical companies.

James Flinn, Ph.D.
IP & Innovation Director

Dr Flinn is an Australian Patent Attorney with +20 years of professional experience in building and managing IP portfolios, including GSK, two US-based pharmaceutical companies, a major Australian retailer, and a Melbourne Patent Attorney firm.

David Fang
Finance Director

Joining Immutep in 2018, Mr Fang has over 12 years' accounting and auditing experience across various industries including biotechnology, manufacturing and healthcare including Group Finance Manager of Kazia Therapeutics Limited and auditor at PWC.

Chrystelle Brignone Ph.D.
Preclinical Development Director

Dr Brignone joined Immutep in 2004 and has more than 20 years' experience in the field of Immunology and Immune monitoring of clinical studies. As Principal Scientist since 2014, she is leading the R&D in the Immutep laboratory in France.

Katja Pruessing
Senior Quality Assurance Mgr.

Dr Pruessing has +10 years of sector-specific experience and is leading quality assurance strategy and implementation, for clinical trials managed by Immutep. She has a Diploma in Biology and completed her PhD at the RWTH Aachen University, Germany.

Milestones

2022

- Industry Conference Presentations:
  - ✓ ASCO - Oral Presentation (TACTI-002; 1L NSCLC)
  - ✓ ELCC & WCLC - PD-X refractory data (TACTI-002; 2L NSCLC)
  - ✓ SITC - Late-Breaking Abstract & Oral Presentation (TACTI-002; 1L NSCLC)
  - ✓ SITC - Initial results from triple-combination INSIGHT-003 trial
  - ✓ SITC - Trial in progress poster on randomized 1L HNSCC trial (TACTI-003)
- Fast Track Designation granted in 1L NSCLC
- Expansion of existing programs (i.e., new sarcoma trial, new collaboration with Merck KGaA & Pfizer in urothelial cancer)
- New data from AIPAC study
- IP expansion for eftilagimod alpha, IMP761, and LAG525
- GMP manufacturing process developed for IMP761; 200L scale
- Efti manufacturing scaled up to 2,000L with WuXi Biologics

2023

- TACTI-003 updates (now 50% enrolled) and top line readout
- TACTI-002 data updates
- INSIGHT-003 updates and readout
- Soft tissue sarcoma study initiation
- Preparations for late-stage development in NSCLC
- Preparations for late-stage development in MBC & TNBC; trial expected to begin during Q1’2023
- Manufacturing updates
- Regulatory updates
- Expansion of the clinical trial pipeline
- Preclinical development of IMP761
- Update from partnered programs
- Partnering updates

*As reported in Quarterly Activities Report for quarter ended 30 September, 2022 (Q1 FY23); ** As of 22 November, 2022. 26.76% of ordinary shares outstanding are represented by ADSs listed on NASDAQ.
***Based on latest substantial holder notices and Orient Capital Report reflecting the register as at 14 October 2022.

Summary

- Pioneering LAG-3 portfolio in oncology & autoimmune diseases with three clinical & two pre-clinical assets
- First-in-class positioning with eftilagimod alpha (efti) that has strong IP protection
- Multiple big pharma partnerships & collaborations with efti, while retaining full global rights ex-China
- Potential first-in-class positioning with IMP761 & small molecule anti-LAG-3 inhibitor
- Well funded with ~A$68.38 million in cash*
- Cash runway to the end of the 1st half of CY2024*
- Market cap ~A$259M / ~$171M US**
- Ticker symbols:
  - ✓ IMM (ASX) & IMMP (NASDAQ)
- Total institutional ownership of ~57% includes Fidelity (FIL Ltd.) ~7.4% and Australian Ethical ~4.9%#

*As reported in Quarterly Activities Report for quarter ended 31 December 2022 (Q2 FY23); ** As of 31 January 2023. 26.76% of ordinary shares outstanding are represented by ADS listed on NASDAQ.
Based on latest substantial holder notices and Orient Capital Report reflecting the register as at 14 October 2022.

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Thank You