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Unlocking the power of the immune system to fight cancer and autoimmune disease

Bell Potter Healthcare Conference – November 2024 (ASX: IMM; NASDAQ: IMMP)

Forward-Looking Statements

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Immutep Highlights

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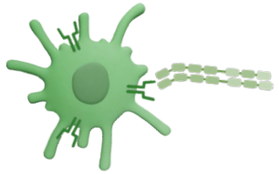
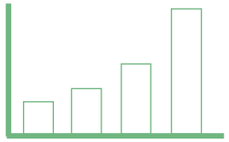
Leader in LAG-3 immunotherapy

LAG-3 pure play with four clinical-stage assets and one preclinical program designed to fight cancer & autoimmune diseases.



First-in-class lead candidates

Eftilagimod alfa is a unique immune system activator showing strong efficacy with favourable safety profile in multiple cancers. IMP761 is LAG-3 agonist antibody to treat autoimmune disorders.



Multiple catalysts ahead; Phase III in 1L NSCLC

Phase III program with MSD in first line non-small cell lung cancer (1L NSCLC) with efti & KEYTRUDA, the top selling drug globally. Additional clinical programs in large markets with data readouts in 2024 and beyond.*

Validation through partnerships

Multiple partnerships and collaborations with large pharma and institutions.

Global presence; strong IP and balance sheet

Global presence and strong IP across LAG-3 portfolio. Well-funded with cash, cash equivalent, & term deposit of ~$172 million (US$ ~119 million)# providing runway to end of CY2026.

*Global market est. for NSCLC, HNSCC, and MBC are $24BB (current), $3.5BB (by 2025) and $12.7BB (by 2024), respectively, based on intelligence data from GlobalData and Nature Reviews Drug Discovery 22, 264-265 (23 Jan 2023). # As at 30 September 2024

Deep LAG-3 Pipeline in Oncology & Autoimmune Diseases

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	Program	Indication	Preclinical	Phase I	Phase II	Late Stage#	Collaborations	Commercial Rights
ONCOLOGY	**Eftilagimod Alfa** Soluble LAG-3 Protein & MHC Class II agonist	1L Non-Small Cell Lung Cancer (NSCLC)	TACTI-004 | Efti + Pembrolizumab + Chemo [a]				MERCK	immutep Global Rights ex-China
		1L Head & Neck Squamous Cell Carcinoma (HNSCC)	TACTI-003 | Efti + Pembrolizumab [a]				MERCK	
		1L NSCLC, 2L HNSCC, PD-X Refractory 2L NSCLC	TACTI-002 | Efti + Pembrolizumab [a]				MERCK	
		1L Non-Squamous NSCLC	INSIGHT-003 | Efti + Pembrolizumab + Chemo [§]				IKF	
		Urothelial Cancer	INSIGHT-005 | Efti + Avelumab [§, b]				Merck KGaA Darmstadt, Germany; IKF	
		Soft Tissue Sarcoma	EFTISARC-NEO | Efti + Pembro + Radiotherapy [§]				Narodowy Instytut Onkologii	
		HR+/HER2- Metastatic Breast Cancer & TNBC	AIPAC-003 | Efti + Paclitaxel					
		Metastatic Breast Cancer & Solid Tumors	Efti + Paclitaxel and Efti + Pembrolizumab [##]				EOC	EOC Efti China Rights
	Anti-LAG-3 Small Molecule	Undisclosed					CARDIFF UNIVERSITY	immutep Global Rights
	LAG525 Anti-LAG-3 Antibody	Solid Tumors & Blood Cancer					NOVARTIS	NOVARTIS Global Rights
		Triple Negative Breast Cancer						
		Melanoma						
		Solid Tumors						
		Triple Negative Breast Cancer						
AUTOIMMUNE DISEASE	**IMP731*** Depleting LAG-3 Antibody	Ulcerative Colitis						immutep Global Rights
		Psoriasis						
		Healthy Subjects						
	IMP761 Agonist LAG-3 Antibody	Undisclosed						

Information current as of October 2024. For EOC's China rights, Immutep may receive undisclosed milestones plus royalties; LAG525 (ieramilimab)- ClinicalTrials.gov (for Novartis' global rights, Immutep may receive milestones plus royalties); Immutep has no control over the trials. § Investigator Initiated Trials controlled by lead investigator & therefore Immutep has no control over these clinical trials. [a] In combination with KEYTRUDA®. [b] In combination with BAVENCIO®. # Late stage refers to active Phase IIb clinical trials or more clinically advanced clinical trials. ## Conducted by EOC in China. * The trials for IMP731 were run by GSK, who transitioned this clinical-stage asset back to Immutep in mid-2024.

Efti: A Soluble LAG-3 ‘Key’ to Stimulate Immune System via MHC II

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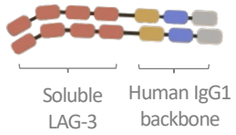
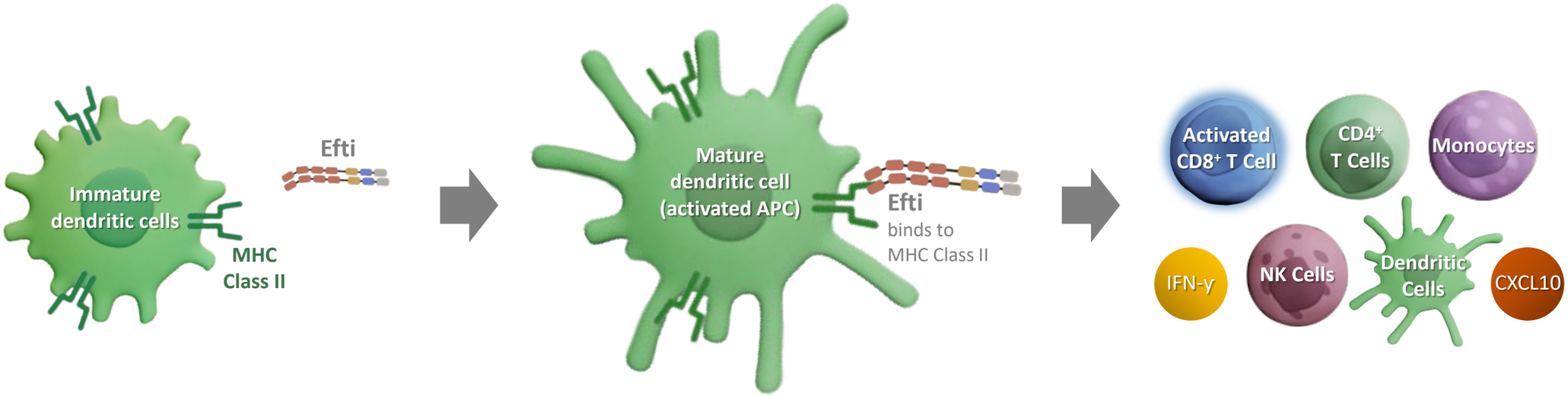
Eftilagimod alfa (efti)

A first-in-class soluble LAG-3 fusion protein with high affinity for a subset of MHC Class II molecules on antigen-presenting cells (APCs)





Efti’s unique activation of APCs as an MHC Class II agonist drives a broad, sustained adaptive/innate immune response to fight cancer*

* In clinical trials, including monotherapy and in combination with anti-PD-(L)1 therapies and with chemotherapy, efti has led to significant and sustained increases in anti-tumor cells and chemokines / cytokines including those listed in the graphic.
MHC Class II = Major Histocompatibility Complex Class II. APC = Antigen-Presenting Cell.

NSCLC Overview

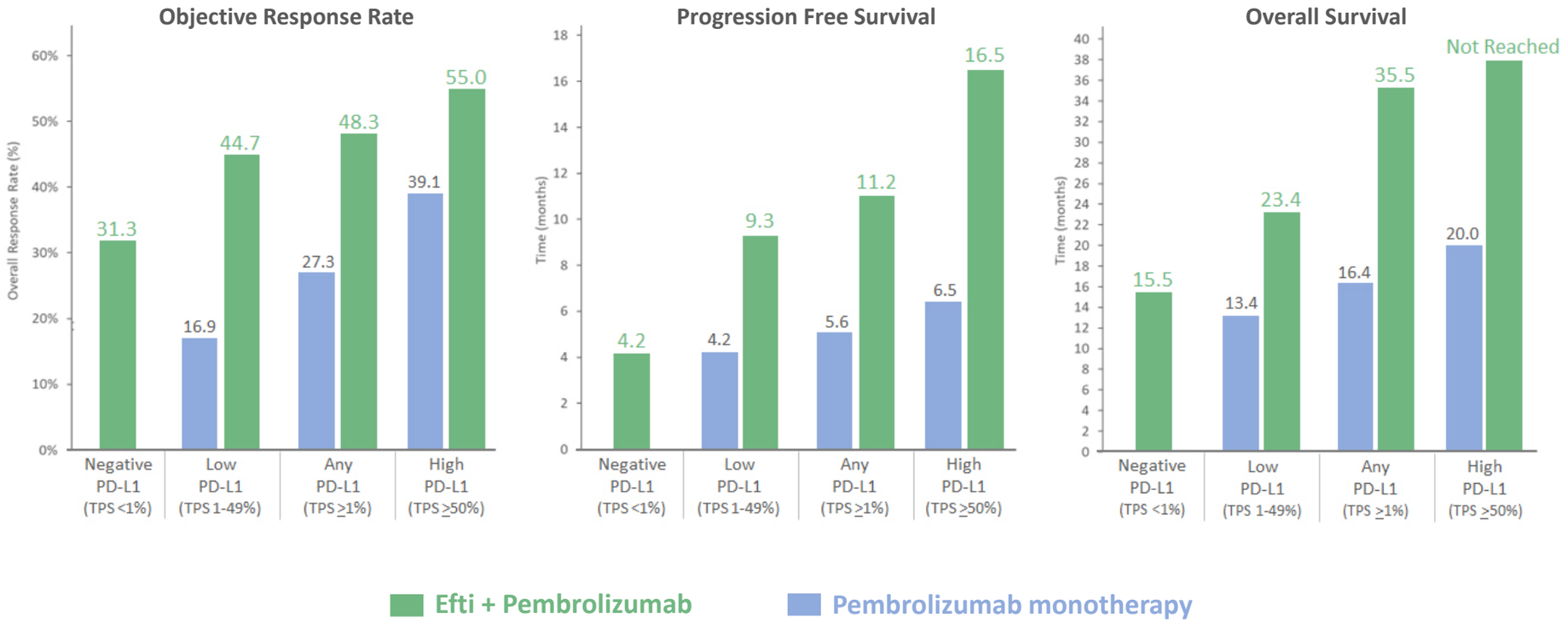
- Lung cancer is a leading cause of cancer death[1,2]
- 80 - 85% of lung cancers are non-small cell lung cancer (NSCLC)
- There are ~2.0 million NSCLC diagnoses worldwide annually
- Only ~20% of patients respond to immune checkpoint inhibitor (ICI) monotherapy
- Despite treatment advances, Overall Survival is still under 2 years for most NSCLC patients

Total addressable NSCLC drug market expected to nearly double to US$48 billion in 2031 and ICIs (including anti-PD-1 therapy) are expected to generate $26 billion in sales[3]

1. Calculated from Global Cancer Observatory (WHO), 2022 data & American Cancer Society, About Lung Cancer; 2.Tang S et al. Immune Checkpoint Inhibitors in Non-Small Cell Lung Cancer: Progress, Challenges, and Prospects. Cells. 2022 Jan 19;11(3):320. doi: 10.3390/cells11030320; 3. Nature Reviews Drug Discovery 22, 264-265 (23 Jan 2023) doi: https://doi.org/10.1038/d41573-023-00017-9.

TACTI-002 / KN-798 Trial:
Benchmarking to Pembrolizumab (KEYTRUDA®) Monotherapy

Robust response rates, durability, and progression free survival from efti plus pembrolizumab across all PD-L1 expression levels translate into compelling overall survival



Comparison of data is from different clinical trials. Pembrolizumab monotherapy data from publications/EPAR asessment report of KN-042 registrational trial. Given the lack of historical results in negative PD-L1 expressing 1L NSCLC patients who received pembrolizumab monotherapy in KN-042 and other trials, the chart only has data from patients in TACTI-002 with negative PD-L1 expression (TPS <1%). In 1L NSCLC patients with TPS ≥1%, TACTI-002 has 66% patients with TPS 1-49% and 34% with TPS ≥50%, which compares to KN-042 with ~53% patients with PD-L1 and ~47% patients with PD-L1 TPS ≥50%.

INSIGHT-003: Excellent Mature Survival Data

Promising efficacy & safety from first-in-human study evaluating Efti + KEYTRUDA + doublet chemo

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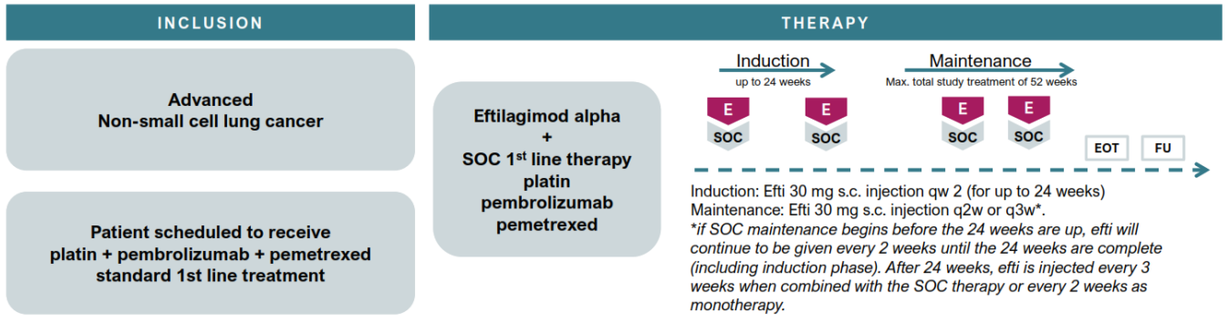
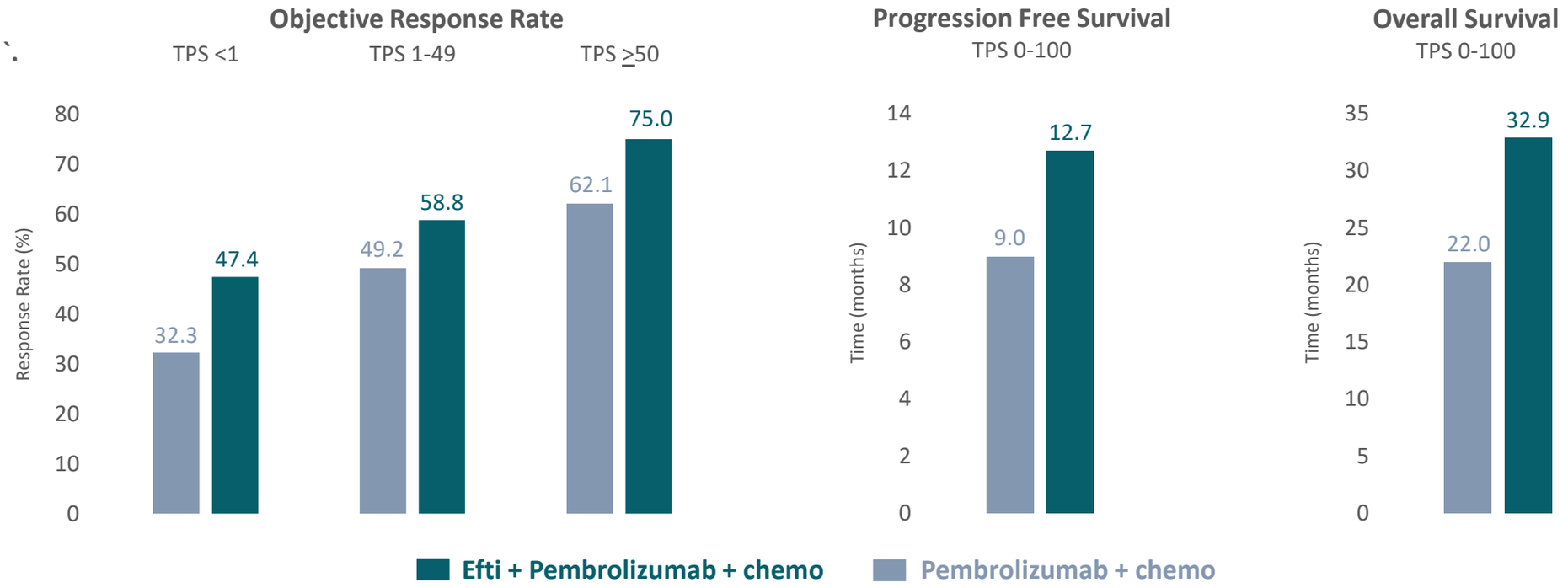


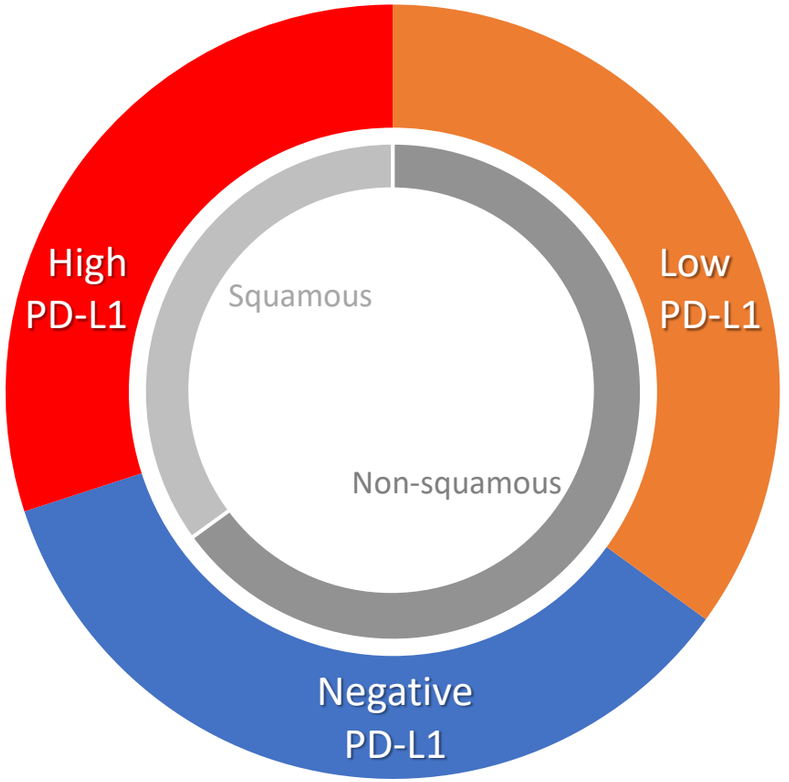
- Investigator-initiated Phase I study in first line metastatic non-squamous NSCLC regardless of PD-L1 (TPS 0-100)
- Multi-centre trial led by the Frankfurt Institute of Clinical Cancer Research (IKF)
- Completion of patient enrollment expected in Q1'2025



1. Shirish Gadgeel et al., Updated Analysis From KEYNOTE-189: Pembrolizumab or Placebo Plus Pemetrexed and Platinum for Previously Untreated Metastatic Nonsquamous Non–Small-Cell Lung Cancer. JCO 38, 1505-1517(2020). DOI:10.1200/JCO.19.03136. 2. Data cut-off date is 15 October 2024 for INSIGHT-003. 3. Of note, INSIGHT-003 has ~19% patients with high PD-L1 (who typically respond better to anti-PD-1) vs ~32% patients in historical control.

TACTI-004 Uniquely Positioned Phase III in 1L NSCLC Landscape

- KEYTRUDA has revolutionized the treatment landscape in lung cancer, and as a result MSD (Merck) captures between 7 to 8 of every 10 metastatic lung cancer patients today*
- Of KEYTRUDA's ~US$25 billion in sales in 2023, it is estimated that ~US$9 billion or +35% are from lung cancer**
- Efti in combination with KEYTRUDA and chemotherapy is uniquely positioned to potentially drive a new standard of care for 1L NSCLC patients eligible for anti-PD-(L)1 therapy



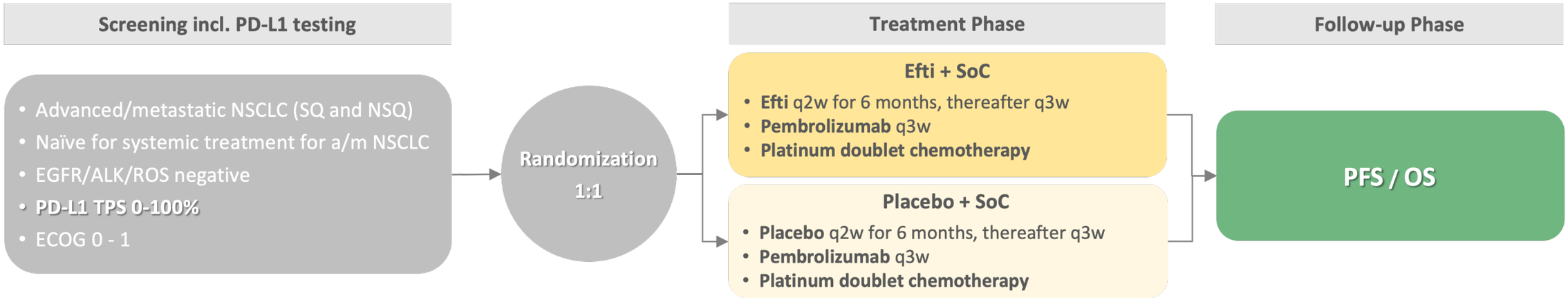
TACTI-004 among the few global Phase III trials evaluating combination therapies with KEYTRUDA that ***addresses almost the entire 1L NSCLC patient population*** eligible for anti-PD-(L)1 therapy

* MSD Investor Event at ASCO 2024. ** Source of sales figures: Bloomberg, Wall Street research reports and Company reports.. Patient population estimates by PD-L1 expression (~35% negative, ~35% low, and ~30% population high) based on publications of registrational trials KN-001, KN-189, KN-407, EMPOWER-Lung 3 and TACTI-002 all comer Phase II trial. Non-squamous and squamous represent ~70% and ~30%, respectively, of the 1L NSCLC patient population (Comparative outcomes of squamous and non-squamous non-small cell lung cancer (NSCLC) patients in phase II studies of ASA404 (DMXAA) – retrospective analysis of pooled data; Thorac Dis. 2010 Dec; 2(4): 199–204 doi: 10.3978/j.issn.2072-1439.2010.02.04.1

Immutep & Merck (MSD) to Undertake Phase III Trial in NSCLC

Opportunity to set a new standard of care across entire NSCLC population regardless of PD-L1 expression

TACTI-004 / KEYNOTE-PNC-91 Trial Design



Trial Overview:

- TACTI-004 will be a 1:1 randomized, double-blind, multinational, controlled clinical study with ~750 patients
- Trial will enroll first line squamous and non-squamous NSCLC patients who are unselected for PD-L1 expression
- Dual primary endpoints will be Progression-Free and Overall Survival with both being adequately powered

Key Milestones:

- First patient expected to be enrolled in Q4 2024 / Q1 2025
- Futility analysis expected in late 2025 / early 2026 and interim analysis in late 2026 till mid-2027 (event driven)

* Timelines are indicative and subject to change

TACTI-003 Phase IIB Trial in First Line Head & Neck Cancer

Cohorts A/B: ORR and DCR across PD-L1 Levels (CPS 0-100) in recurrent or metastatic 1L HNSCC

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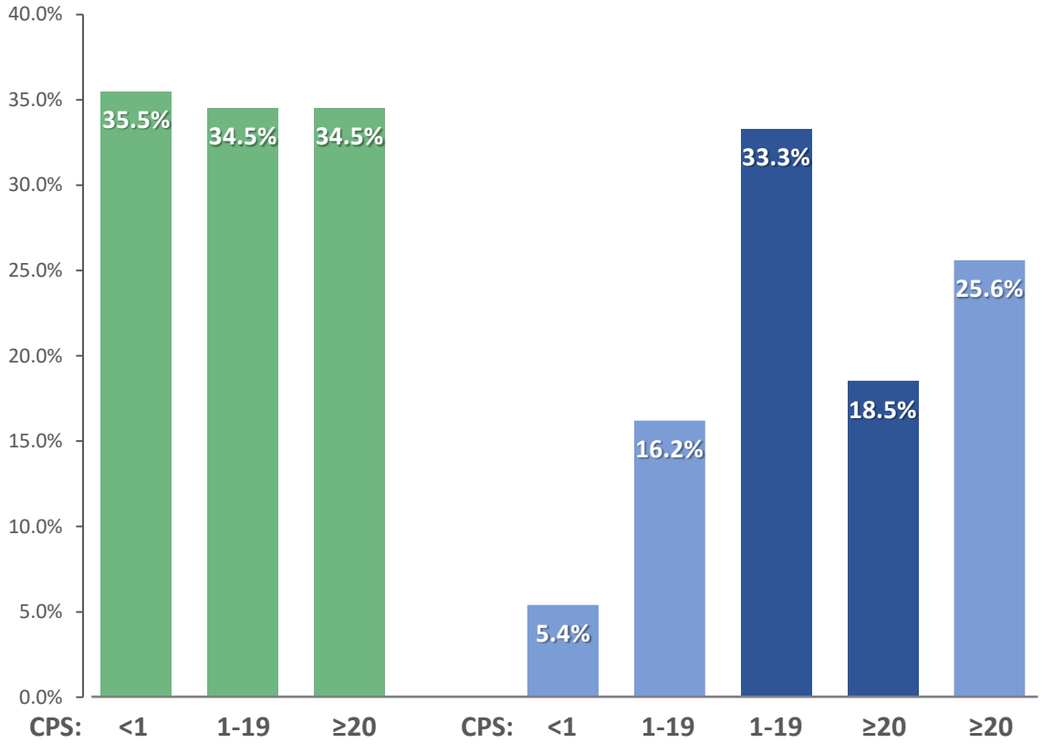
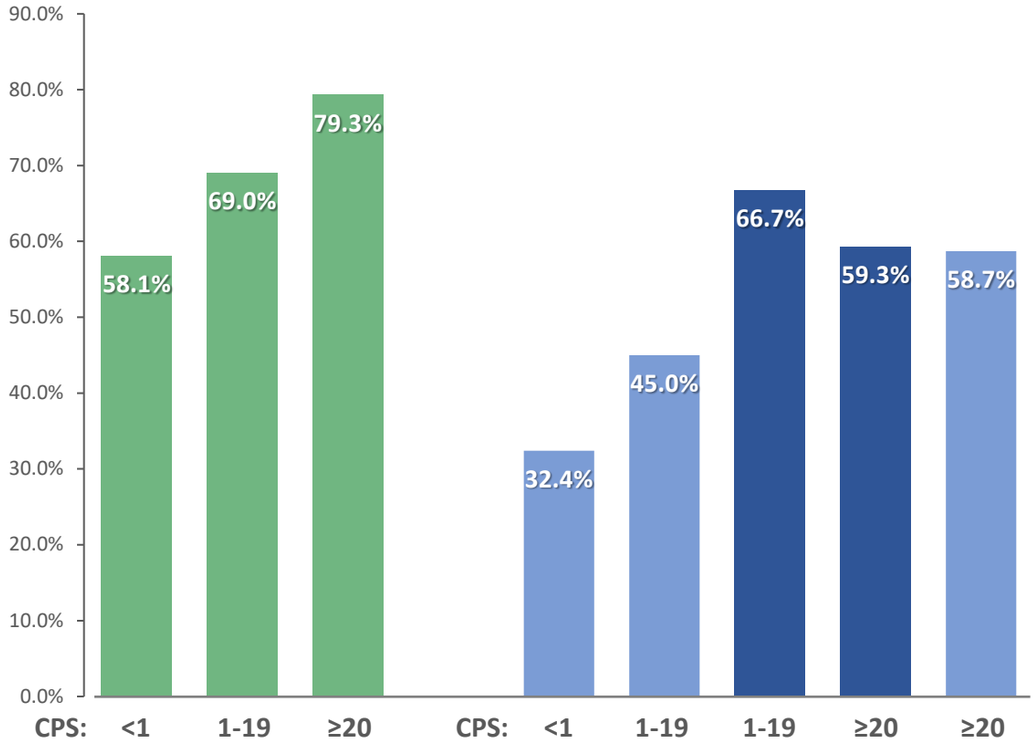
Objective Response Rate (ORR)



Disease Control Rate (DCR)



Efti + KEYTRUDA (TACTI-003)
KEYTRUDA monotherapy (TACTI-003)
KEYTRUDA monotherapy (KN-048)*

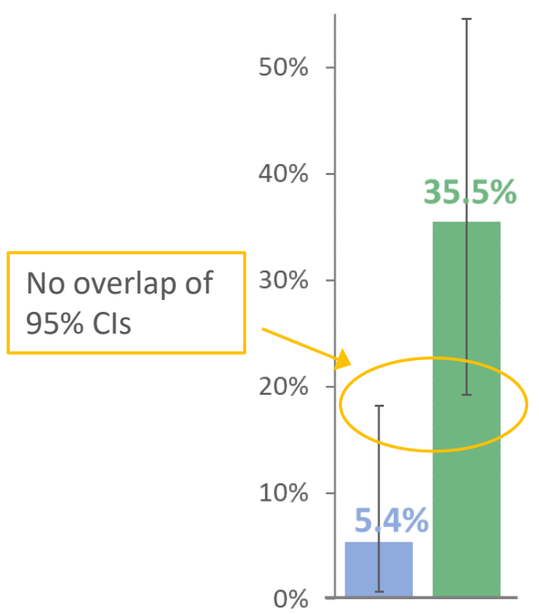
Data cut-off date: March 11, 2024. An additional partial response in Efti + KEYTRUDA arm was reported in CPS ≥20 after data cut-off leading to a 34.5% ORR in the CPS ≥20 group. ORR and DCR in evaluable patients (primary and secondary endpoints in TACTI-003 study).
* Source: Burtness, B. et al. Pembrolizumab Alone or With Chemotherapy for Recurrent/Metastatic Head and Neck Squamous Cell Carcinoma in KEYNOTE-048: Subgroup Analysis by Programmed Death Ligand-1 Combined Positive Score. Journal of Clinical Oncology 2022 40:21, 2321-2332

Cohort B: Exceptional Results for a Chemo-Free Regimen

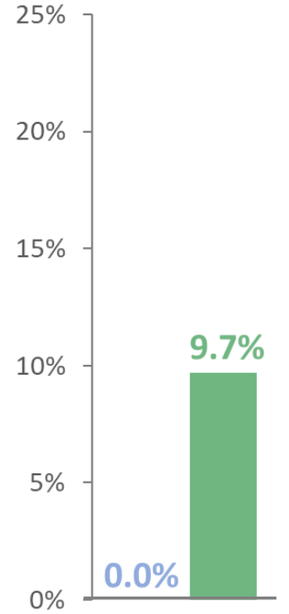
Key takeaways, Cohort B (CPS <1)

- ✓ ORR of 35.5%, DCR of 58.1%, and ~10% complete response rate are exceptional for a chemo-free regimen in this patient population. Data compares favorably to historical results from KEYTRUDA monotherapy *(see figures to right).*
- ✓ 35.5% ORR above KEYTRUDA + chemo (~31%) and in range of EXTREME regimen (~40%)#, without the added toxicity of chemotherapy that both these approaches have
- ✓ Early trends in durability look favourable with 90% responders ongoing treatment at 6+ months. Notably, duration of response for standard-of-care cetuximab + chemo (EXTREME) or KEYTRUDA + chemo treatments range from ~4 to ~7 months.
- ✓ Additional data to be presented at ESMO Immuno-Oncology Congress in December 2024

Objective Response Rate



Complete Responses



PD-L1 CPS <1	KEYTRUDA mono KN-048 (N=37)#	Efti + KEYTRUDA TACTI-003 (N=31)
ORR [95% CI]*	**2 (5.4%)** [0.7-18.2]	**11 (35.5%)** [19.2-54.6]
Complete Responses	0 (0.0%)	3 (9.7%)
Partial Responses	2 (5.4%)	8 (25.8%)

Comparison of data is from different clinical trials. Data for pembrolizumab monotherapy in 37 evaluable patients with CPS <1 from KN-048 trial (https://ascopubs.org/doi/10.1200/JCO.21.02198). # ~31% & ~40% ORR in CPS <1 for KEYTRUDA + chemo and for EXTREME regimen (cetuximab + chemo), respectively, from KN-048 trial (https://ascopubs.org/doi/10.1200/JCO.21.02198). FDA approved pembrolizumab in combination with ChT as first-line treatment regardless of PD-L1 expression and pembrolizumab alone for CPS ≥1. In contrast, the European Medicines Agency (EMA) has approved pembrolizumab with or without ChT only for patients with a CPS ≥1. Source: DOI:https://doi.org/10.1016/j.annonc.2020.07.011. * Calculated using Clopper-Pearson method. ** DOR data from KN-048 trial, Burtness et al., *The Lancet* 2019, https://doi.org/10.1016/S0140-6736(19)32591-7

Soft Tissue Sarcoma: Orphan Disease with High Unmet Need

Investigator-initiated trial studying novel triple combination of Efti + Radiotherapy + KEYTRUDA

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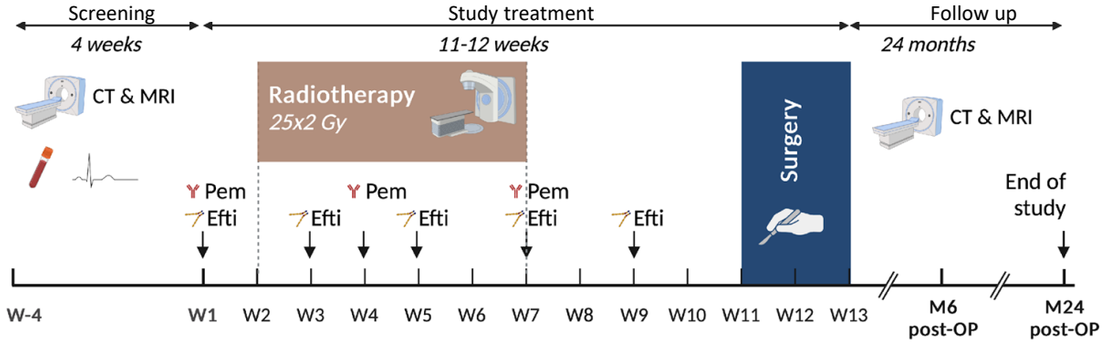
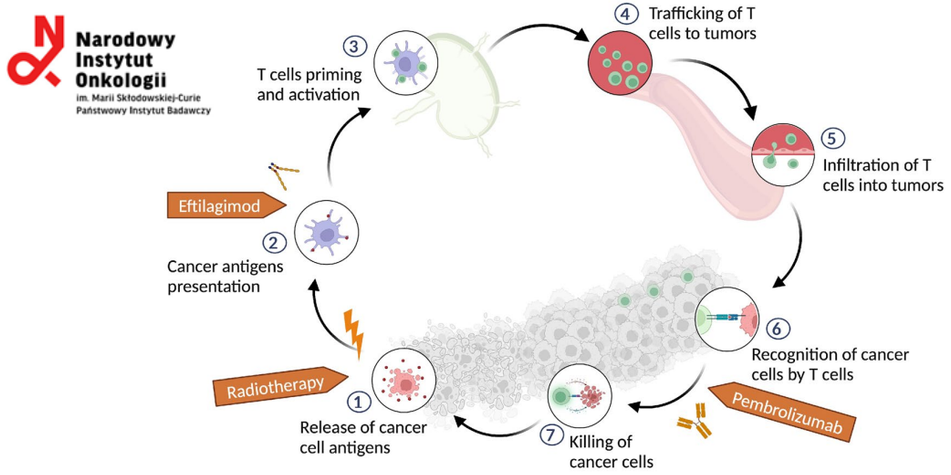
EFTISARC-NEO Phase II Trial Design*



- First trial studying efti in neoadjuvant setting and with radiotherapy
- Importantly, study will provide access to tumor tissue prior to and after treatment, so tumor microenvironment can be assessed**
- Cost-efficient Phase II study funded by grant from Polish government
- Completion of patient enrollment expected in Q1'2025

Rationale for triple combination based on cancer-immune cycle*



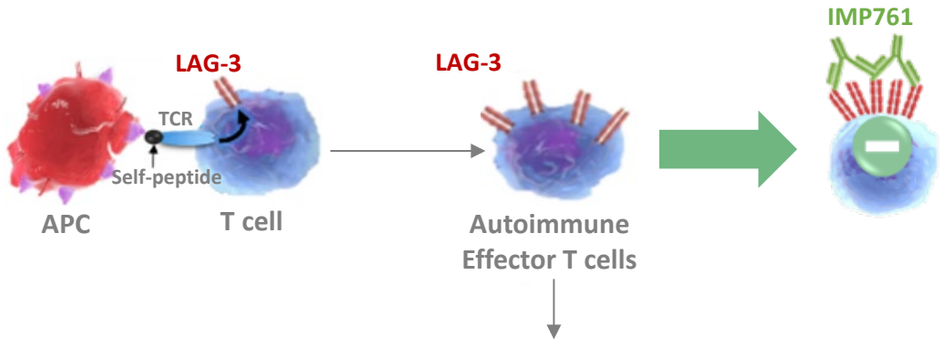
Positive data from EFTISARC-NEO presented at CTOS 2024:

- ✓ Based on preliminary analysis among 21 patients available for primary endpoint assessment, triple combination with efti demonstrates significant efficacy
- ✓ Median 50% tumour hyalinization (primary endpoint and important predictor of overall survival) is greater than 3-fold increase versus historical median 15% from radiotherapy alone
- ✓ 71.4% of patients achieved pathologic response defined as ≥35% of hyalinization/fibrosis
- ✓ 9.5% of patients achieved a complete pathologic response
- ✓ Therapy well tolerated

*Pembrolizumab in combination with eftilagimod alpha and radiotherapy in neoadjuvant treatment of patients with soft tissue sarcomas - EFTISARC-NEO trial – Trial in Progress Poster at ESMO 2023. ** Blood samples and tumor biopsies will be taken for translational studies.

IMP761: First-in-Class LAG-3 Agonist is a Potential Game-Changer

IMP761 is the world's first immunosuppressive LAG-3 agonist antibody, designed to address underlying cause of many autoimmune diseases, is a potential game-changer in the treatment landscape. Phase I trial dosed 1st patient in Aug 2024 and progressed to dose-escalation in Oct 2024.



Epigenetic reprogramming leads to T cell helper (Th) induced Autoimmune Diseases such as Rheumatoid Arthritis (Th1), Allergic Asthma (Th2), IBS (Th17), etc.

IMP761 increases natural LAG-3-mediated down-regulation of auto-reactive memory T cells (root cause of many diseases)

CHDR
Centre for Human Drug Research

- World-class institute in Leiden, the Netherlands specializing in cutting-edge early-stage clinical drug research.
- CHDR offers a unique keyhole limpet haemocyanin (KLH) challenge model that allows for the evaluation of IMP761's pharmacological activity at the earliest stages of clinical development.

Outlook

2024

- **Non-Small Cell Lung Cancer –** TACTI-004 preparations for study start in late 2024 / early 2025
- **Head and Neck Squamous Cell Carcinoma –** Update from Cohort B of TACTI-003 trial at the ESMO Immuno-Oncology Congress
- **Autoimmune Diseases –** Safety data from IMP761 first-in-human Phase I trial anticipated by year-end

2025

- **Non-Small Cell Lung Cancer** – Potential futility analysis in TACTI-004 Phase III trial by year end 2025; update from INSIGHT-003 trial
- **Metastatic Breast Cancer –** Update from AIPAC-003 trial
- **Head and Neck Squamous Cell Carcinoma –** Update from TACTI-003 trial
- **Soft Tissue Sarcoma –** Update from investigator-initiated EFTISARC-NEO trial
- **Metastatic Urothelial Carcinoma –** Update from investigator-initiated INSIGHT-005 trial
- **Autoimmune Diseases –** Update from IMP761 first-in-human Phase I trial
- **Additional Updates –** From ongoing clinical trials, partnered programs, and potential expansion of clinical trial pipeline
- **Well Funded –** Cash, cash equivalent and term deposit totalling ~A$172.3 million (~US$119.1 million)[1]; runway to end of CY'2026

1. As at 30 September 2024