immutep
LAG-3 IMMUNOTHERAPY

The global leader in developing LAG-3 therapeutics

Corporate Presentation
February 2021

(ASX: IMM, NASDAQ: IMMP)

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Overview

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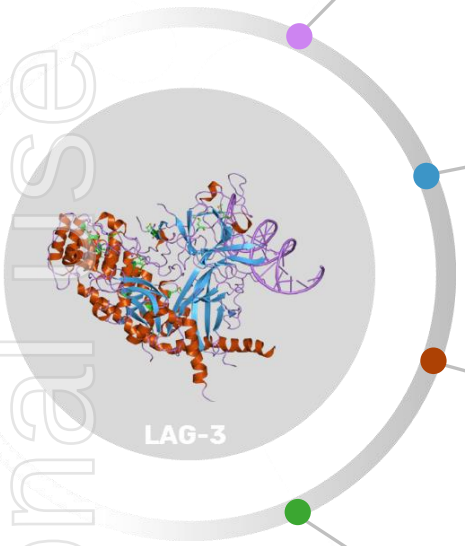

Immutep

is an innovative biotechnology company developing novel immunotherapies for cancer and autoimmune diseases

Global leadership position

in LAG-3 with four product candidates in immuno-oncology and autoimmune diseases

Clinical Potential

Immutep's product candidates have demonstrated clinical potential in a range of indications with high unmet need

Collaboration deals executed with industry leaders

NOVARTIS
Pfizer
gsk GlaxoSmithKline
Merck KGaA, Darmstadt, Germany
MERCK INVENTING FOR LIFE
EOC
CYTLIMIC Cytotoxic T Lymphocyte Immunotherapy in Cancer
LabCorp

Corporate Strategy:

To develop product candidates to sell, licence or partner with large pharmaceutical companies at key value inflection points

Directors & Officers

Russell J. Howard
PhD
Non-Executive Chairman

Scientist, executive manager and entrepreneur; previously CEO of Maxygen & Oakbio, positions at NIH, DNAX, Affymax

Pete A Meyers
Non-Executive Director & Deputy Chairman

Former Chief Financial Officer of Eagle Pharmaceuticals, Inc.; previously CFO of Motif Bio; previously Co-Head of Global Health Care Investment Banking at Deutsche Bank

Grant Chamberlain
Non-Executive Director

20+ years in investment banking; current principal of One Ventures; previously Head of Mergers and Acquisitions and Financial Sponsors Australia at Bank of America Merrill Lynch

Marc Voigt
Executive Director & Chief Executive Officer

20+ years in leading positions in finance, venture capital and biotech industry, multiple financing & licensing transactions

Prof. Frédéric Triebel
MD PhD, Chief Scientific Officer & Chief Medical Officer

Clinical haematologist, and PhD in immunology (Paris University) and successfully developed several research programs in immunogenetics and immunotherapy, leading to over 144 publications and 16 patents

Deanne Miller
Chief Operating Officer, General Counsel & Company Secretary

Lawyer; previous positions at RBC Investor Services, Westpac, Macquarie and ASIC

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LAG-3 Overview
- The most promising immune checkpoint -

LAG-3 Therapeutic Landscape Overview

	Company	Program	Preclinical	Phase I	Phase II	Phase III	Total Trials	Patients
Oncology – Agonist	immutep	Eftilagimod Alpha[4]		10	5		15	951
Oncology – Antagonist	BMS	Relatlimab		10	26	2	38	10,528
	NOVARTIS	LAG525 (leramilimab)		1	4		5	1,069
	B.I.	BI754111		4	1		5	849
	Macrogenics	MGD013		3	3		5	1054
	Merck & Co. Inc.	MK4280		2	3		3	1080
	Incyte	INCAGN02385		1	1		2	92
	Regeneron[1]	REGN3767		1	1		2	769
	Symphogen A/S	SYM022		3			2	232
	Tesaro[2]	TSR-033		2			2	75
	H-L Roche	RG6139		1			1	320
	Innovent	IBI110		1			1	268
	Xencor	XmAb-22841		1			1	242
	F-Star	FS-118		1			1	43
Autoimmune – Agonist	immutep	IMP761					--	--
Autoimmune – Depleting AB	gsk[3]	GSK2831781 (IMP731)		2	1		3	346

Notes:

Sources: Company websites, clinicaltrials.gov, and sec.gov, as of **January 2021.** The green bars above represent programs conducted by Immutep &/or its partners.

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) Tesaro was acquired by and is now part of GSK (https://www.gsk.com/en-gb/media/press-releases/gsk-completes-acquisition-of-tesaro-an-oncology-focused-biopharmaceutical-company/)
3) Includes two completed Phase I studies and one discontinued Phase 2 study (see slide 9)
4) Including two planned trials in MBC and HNSCC

Targeting LAG-3: Multiple Therapeutics in Numerous Diseases

LAG-3, an immune checkpoint, was discovered in 1990 by Immutep's CMO and CSO Prof Frédéric Triebel.

Immutep has **four** LAG-3 product candidates:

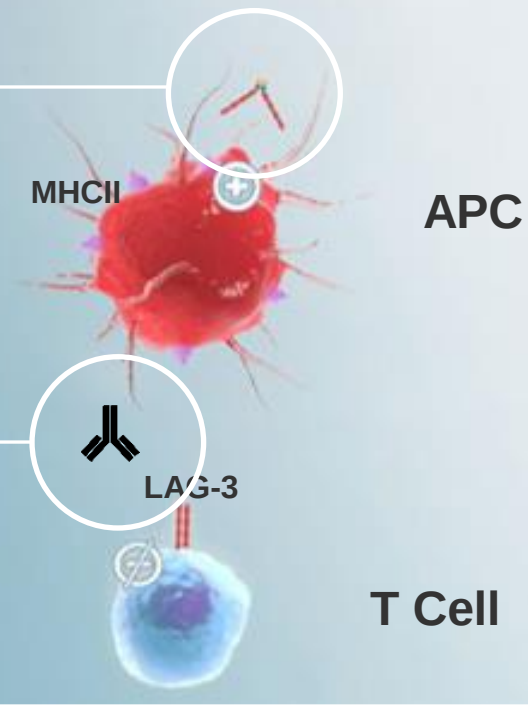
IMMUNOSTIMULATION

Efti

(APC Activator)

LAG525

(Antagonistic mAb)
Out-licensed to:
NOVARTIS



RELEVANT DISEASES: Immuno-oncology Combination Therapies; Viral Infections

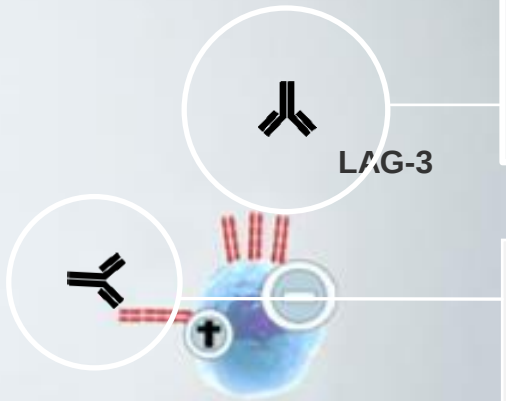
IMMUNOSUPPRESSION

IMP761

(Agonistic mAb)

GSK'781

(Depleting mAb)
Outlicensed to:
gsk GlaxoSmithKline



RELEVANT DISEASES: Rheumatoid Arthritis; IBD; Other Autoimmune Diseases

Immunotherapy Pipeline*

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Program	Preclinical	Phase I	Phase II	Late Stage[5]	Commercial Rights	Market Size[6]
Oncology						
Eftilagimod Alpha (efti or IMP321) APC activating soluble LAG-3 protein	Metastatic Breast Cancer (Chemo – IO) AIPAC				Global Rights immutep	US$29.9 billion
	Non-Small-Cell Lung Carcinoma (IO – IO) [1] TACTI-002			MERCK INVENTING FOR LIFE		US$22.6 billion
	Head and Neck Squamous Cell Carcinoma (IO – IO) [1] TACTI-002			MERCK INVENTING FOR LIFE		US$1.9 billion
	Head and Neck Squamous Cell Carcinoma (IO – IO) [1b]			MERCK INVENTING FOR LIFE		
	Solid Tumors (IO – IO) [2], [3] INSIGHT-004		Pfizer Merck KGaA, Darmstadt, Germany			
	Melanoma (IO – IO) [1] TACTI-mel					US$4.5 billion
	Solid Tumors (In situ Immunization) [2] INSIGHT					
	Solid Tumors (Cancer Vaccine)[4a] YNP01 and YCP02		CYTLIMIC Cytotoxic T Lymphocyte Immunotherapy in Cancer			
	Metastatic Breast Cancer (Chemo – IO)[4b]			EOC	Chinese Rights EOC	US$2.3 billion
Inf. Dis.						
Efti	COVID-19 disease (Monotherapy)[7] EAT-COVID				Global Rights immutep	
Autoimm.						
IMP761 (Agonist AB)					Global Rights immutep	US$149.4 billion (2025)

Notes
* Information in pipeline chart current as at January 2021
(1) In combination with KEYTRUDA® (pembrolizumab) (1b) Planned new trial for 1st line HNSCC patients
(2) INSIGHT Investigator Initiated Trial ("IIT") is controlled by lead investigator and therefore Immutep has no control over this clinical trial
(3) In combination with BAVENCIO® (avelumab)
(4) a) Conducted by CYTLIMIC in Japan; b) Conducted by EOC in China. Immutep has no control over either of these trials.
(5) Late stage refers to Phase IIb clinical trials or more clinically advanced clinical trials
(6) GlobalData Market Size forecast for US, JP, EU5, Urban China and Australia; KBV Research; https://www.kbvresearch.com/autoimmune-disease-therapeutics-market/)
(7) IIT conducted by University Hospital Pilsen. Immutep has no control over this trial.

Immutep Out-Licensed Immunotherapy Pipeline*

Program	Preclinical	Phase I	Phase II	Late Stage[1]	Commercial Rights/Partners	Updates
Oncology LAG525 (Antagonist AB)	Solid Tumors + Blood Cancer (IO-IO Combo)				Global Rights NOVARTIS	Novartis currently has five clinical trials ongoing for LAG525 in multiple cancer indications for over 1,000 patients[4]
	Triple Negative Breast Cancer (Chemo-IO Combo)					
	Melanoma (IO-IO-Small Molecule Combo)					
	Solid Tumors (IO-IO Combo)					
	Triple Negative Breast Cancer (Chemo-IO-Small Molecule Combo)					
Autoimmune GSK'781 (Depleting AB)	Ulcerative Colitis[6]				Global Rights gsk	Two successful Phase I studies, but the Phase II clinical study in up to 242 ulcerative colitis patients was discontinued.
	Healthy Japanese and Caucasian Subjects[2]					
	Psoriasis[3]					

Notes

* Information in pipeline chart current as at January 2021

(1) Late stage refers to Phase IIb clinical trials or more clinically advanced clinical trials

(2) Reflects completed Phase I study in healthy volunteers

(3) Reflects completed Phase I study in healthy volunteers and in patients with plaque psoriasis

(4) https://clinicaltrials.gov/ct2/results?cond=&term=LAG525&cntry=&state=&city=&dist=

(5) https://clinicaltrials.gov/ct2/results?cond=&term=GSK2831781&cntry=&state=&city=&dist= and https://www.gsk.com/media/5957/q1-2020-results-slides.pdf

(6) Discontinued in Jan 2021

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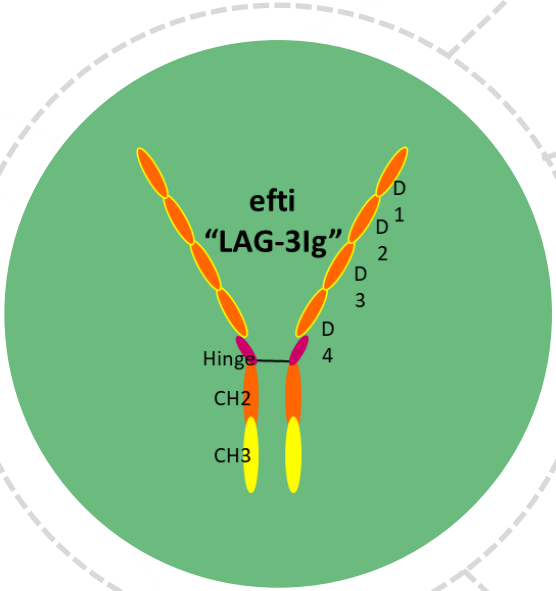
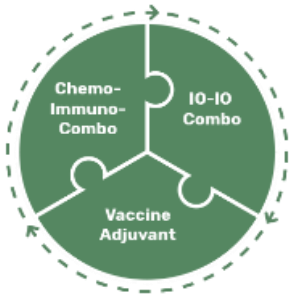
Eftilagimod Alpha (efti or IMP321)

Efti: Potential Pipeline in a Product

High intrinsic value



- **Unique APC activator (MHC II Agonist)**
- **Effective APC activation leads to immune activation (e.g. CD8 T cells) as shown by *ex vivo* and *in vivo* experiments, and in clinical studies**
- ***Pipeline in a product* - Not limited to a select number of oncology indications, target expressions or treatment lines**



- **Potentially low costs of goods**
- **Efti's safety profile enables it to be used in various combination settings**

Route of admin: subcutaneously
Dose: 30 mg every 2 weeks*

* - can be extended to every 3 weeks after 6 months

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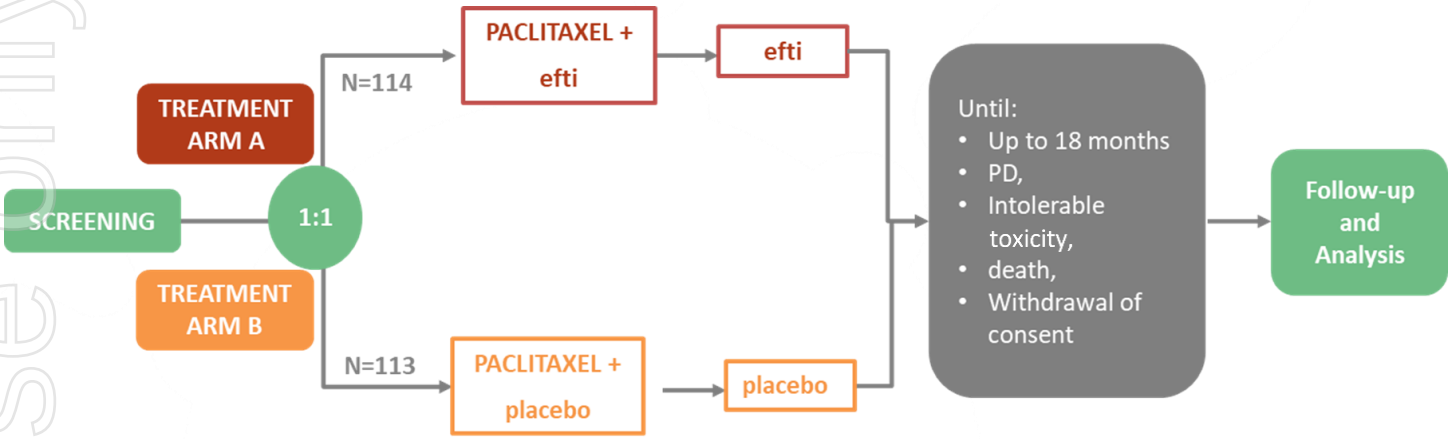
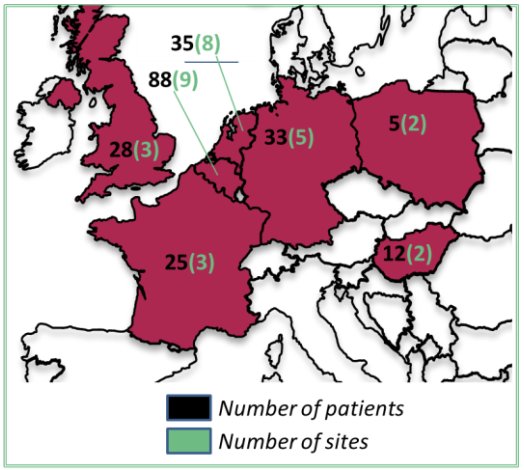
AIPAC Phase IIb Update:

- Exciting Interim OS Results in Dec 2020 -

Efti: AIPAC (Phase IIb) design

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





Primary endpoint includes:

- Assessment of Progression-Free Survival (PFS) (note: no hypothesis testing) – **presented Mar 2020**

Secondary endpoints include:

- Overall Survival (OS) – **presented Dec 2020**
- Safety and tolerability
- Overall Response Rate (ORR) and other efficacy parameters
- Biomarker and Immune Monitoring

Fact sheet

- ✓ Conducted in 7 EU countries
- ✓ Local and blinded independent central read
- ✓ LPI enrolled Jun 2019
- ✓ Primary analysis PFS (immature OS) March 2020
- ✓ Follow-up 1 analysis OS Sep 2020 (SABCS Dec 2020) – ~60% OS events
- ❖ 2nd OS follow-up analysis planned mid 2021

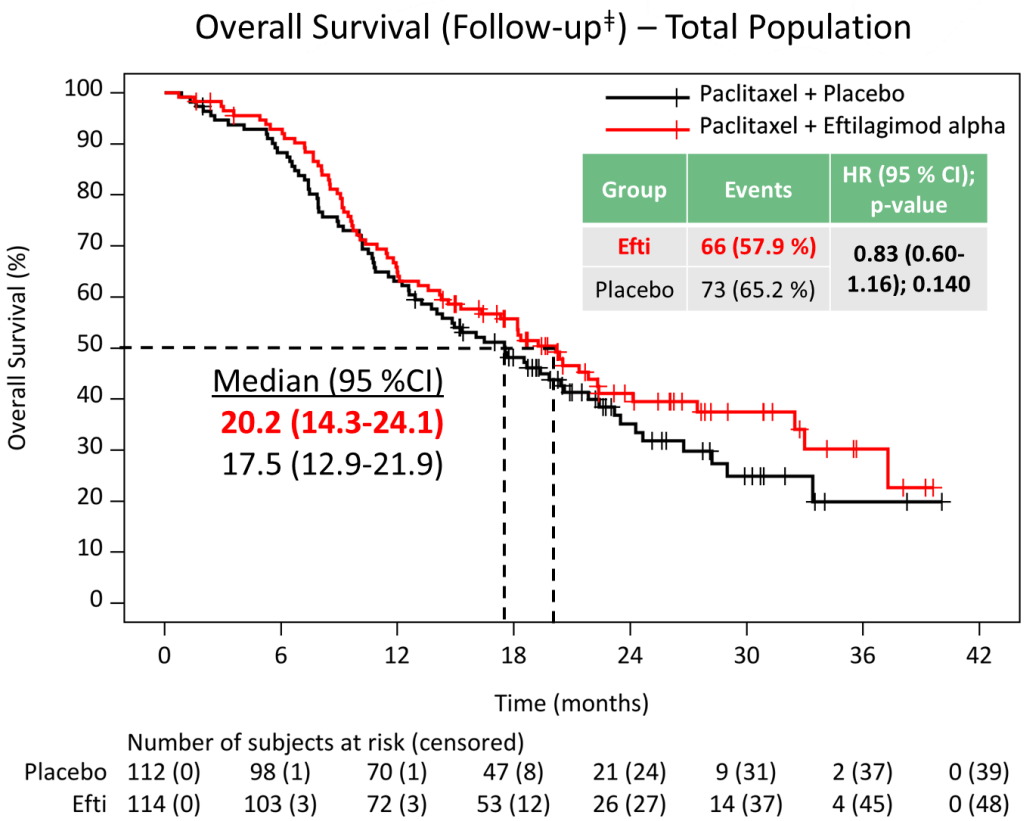
Notes:
ORR – overall response rate, DCR – disease control rate, PFS – progression free survival, OS – overall survival, QoL – Quality of life

AIPAC Phase IIb Clinical Results

Overall Survival – FU1 (60% events; cut-off: Sep 20)

Improving trend for the overall population (IIT) as data matures

Currently 2.7 months difference in median OS



Post-study treatment

was similar with 80.7% (efti) and 83.9% (placebo) receiving any post study systemic anticancer therapy. Vast majority received **chemotherapy**: 64.0% (efti) vs. 69.6% (placebo)

Prior CDK 4/6

have negative impact on OS in placebo group (median reduced from 20.0 to 14.9 months), but **not** in the efti group (median OS 20.9 vs. 20.4 months)

CDK4/6 are now standard and most patients will have received it in future studies / real world → favorably for efti

Quality of Life (QLQ-C30)

Significant deterioration of overall QoL in the placebo group at week 25, which was **not** observed in the efti group

Very important for reimbursement → favorably for efti

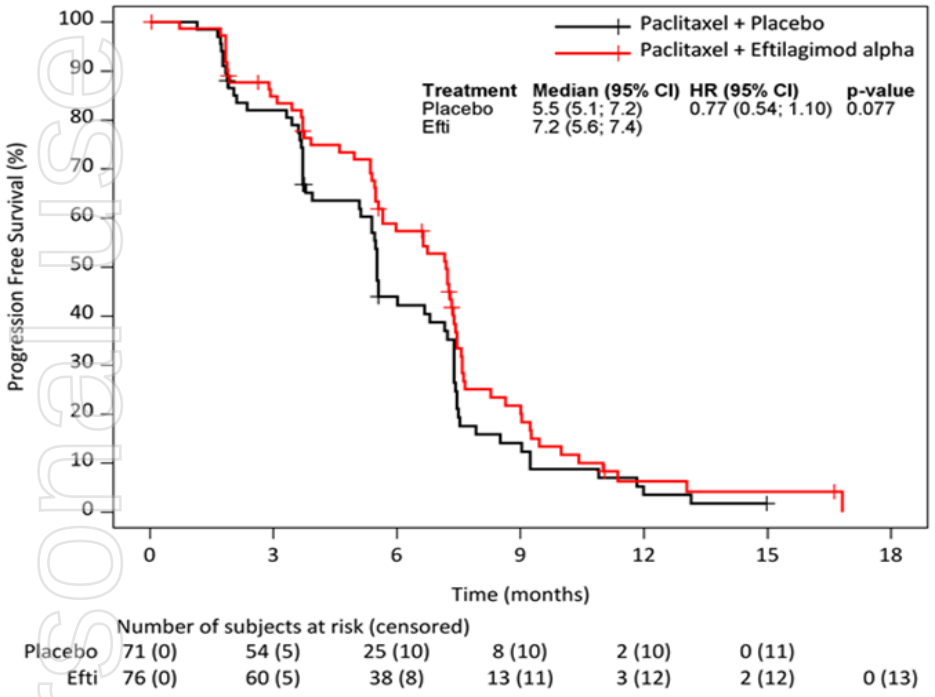
AIPAC Phase IIb Clinical Results

Subgroup 1: < 65 years – PFS / OS / ORR

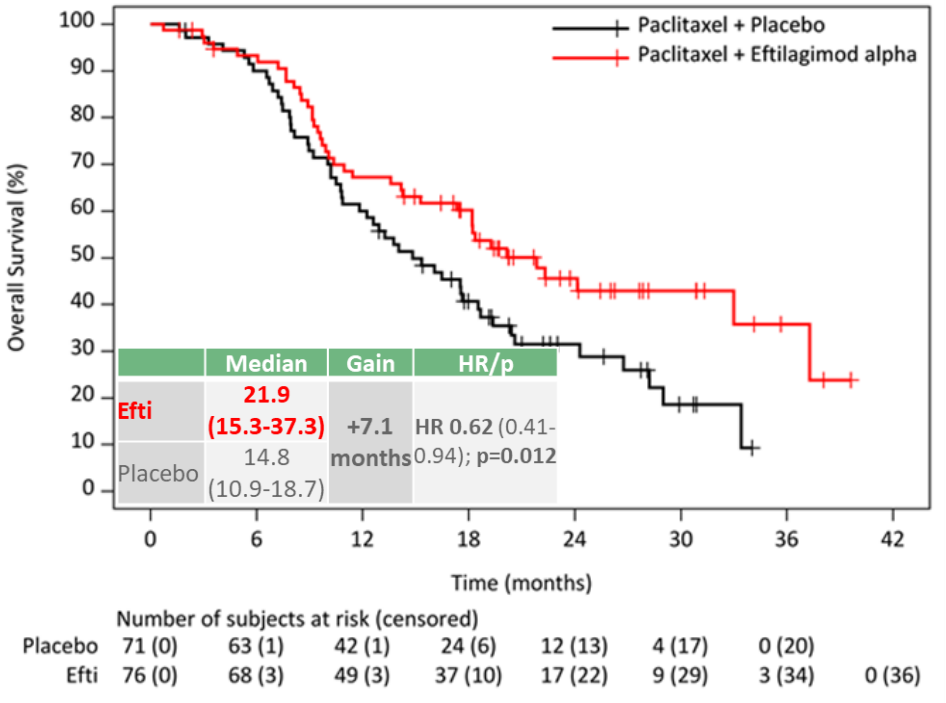
Clinically meaningful absolute and relative improvement for all efficacy parameters, significance for OS

ESMO scale of magnitude* = level 4 (makes reimbursement very likely)

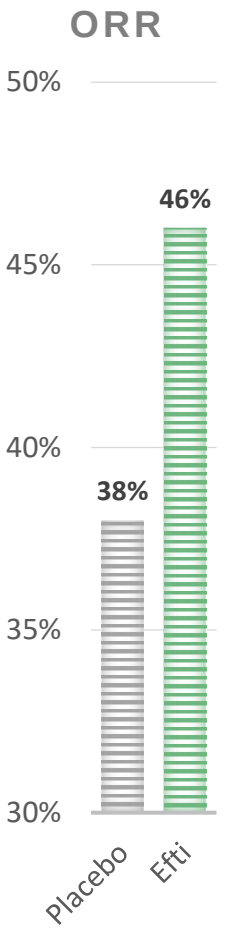
Patients with age < 65 yrs
Progression Free Survival



Patients with age < 65 yrs
Overall Survival



ORR



Notes:

* used for reimbursement in Europe: https://www.esmo.org/guidelines/esmo-mcbs/scale-evaluation-forms-v1.0-v1.1

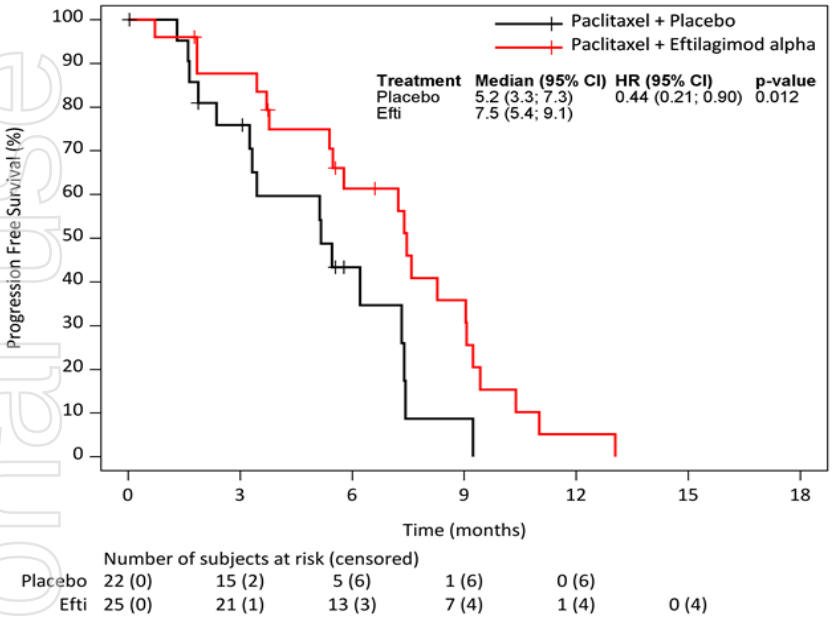
AIPAC Phase IIb Clinical Results

Subgroup 2: Low Monocytes – PFS / OS / ORR

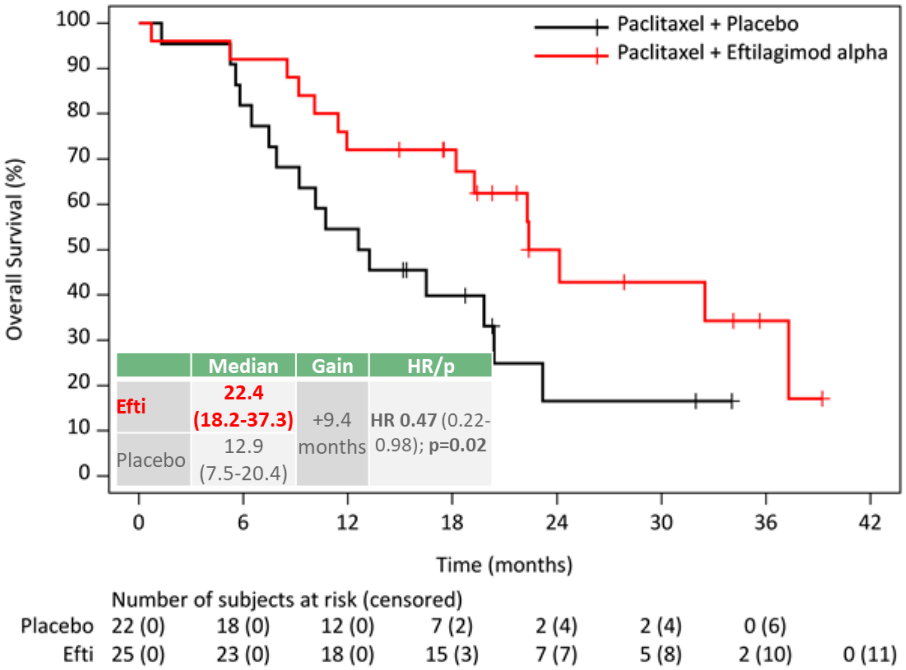
Clinically meaningful, absolute and relative improvement for all efficacy parameters, significance for PFS/OS

ESMO scale of magnitude* = level 4 (makes reimbursement very likely)

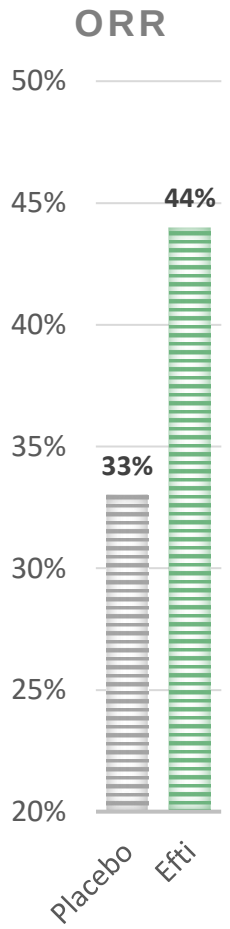
Patients with low monocytes
Progression Free Survival



Patients with low monocytes
Overall Survival



ORR



Notes:

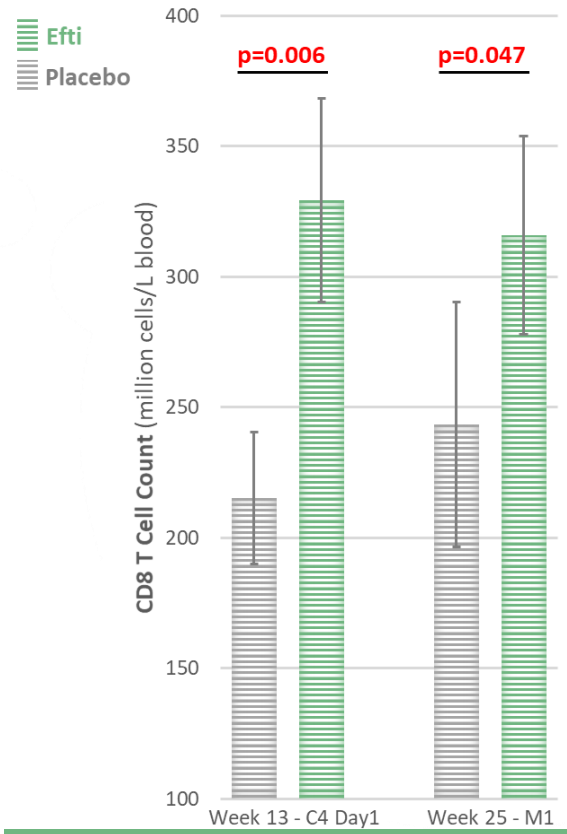
* used for reimbursement in Europe: https://www.esmo.org/guidelines/esmo-mcbs/scale-evaluation-forms-v1.0-v1.1

AIPAC Phase IIb Clinical Results

Immune Monitoring on Fresh Blood (up to 70 patients)

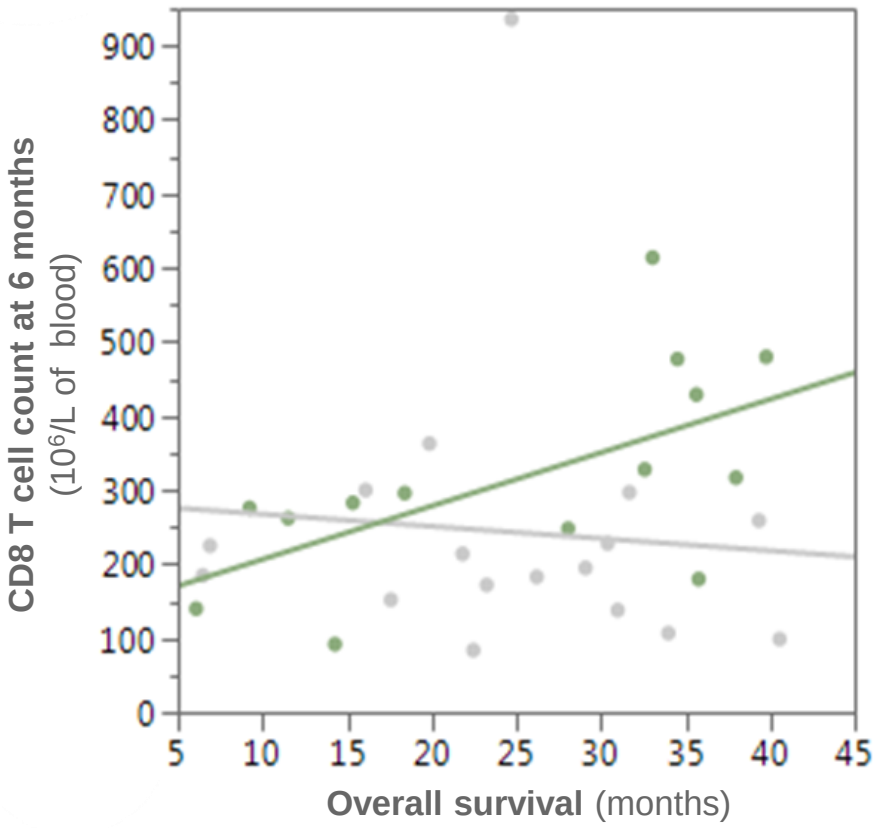
Cytotoxic CD8⁺ T Cell count over time

(Mean ± SEM million cells/L of blood; p-value Wilcoxon)



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

Stat. significant (p=0.020)
Correlation: OS and cytotoxic CD8⁺ T cell count



Increased number of cytotoxic CD8⁺ T Cells correlated with improved OS in the efti arm → Proof of Concept.

AIPAC Phase IIb Clinical Results
Summary and Conclusions

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First time

an APC activator has shown meaningful increase in Overall Survival (OS) in a randomised setting

Proof of Principle

Significant increase in cytotoxic T cell numbers compared to placebo

Proof of Concept

Prolonged OS in the overall population and clearly linked to pharmacodynamic effect (increase in CD8 T cells)

Path Forward

Regulatory (FDA and EMA) discussions are prioritised now

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Updates on Anti-PD-1 Combinations

Efti: TACTI-002 Trial in Different Cancers

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TACTI-002 evaluates the combination of efti with KEYTRUDA® (pembrolizumab) in a PD-L1 all comer study. In collaboration with MERCK INVENTING FOR LIFE

Key Results from 1st line **non-small-cell lung carcinoma** (NSCLC) (as at 8th October 2020):

- 36.1% Objective Response Rate (iORR)
- 61% patients had tumour shrinkage
- 2 Complete Responses (complete disappearance of all lesions)

ORR combination results are higher than pembrolizumab alone (ORR of ~20%)(1) without additional toxicity

Key Results from 2nd line **head and neck squamous cell carcinoma** (HNSCC) (as at 8th October 2020):

- 35.7% Objective Response Rate (iORR)
- 3 (10.7%) Complete Responses (complete disappearance of all lesions)

Higher ORR compared to pembrolizumab alone (ORR of 14.6%(2)) without additional toxicity

Key Results from 2nd line **non-small-cell lung carcinoma** (NSCLC) (as at 8th October 2020):

- 72% alive at 6.3 months → **OS:** 6+ months
- 50+% alive at 12 months

OS already higher than SOC (Docetaxel mOS: 6 months; ~24% alive at 12 months)(3)

Next: More data throughout 2021 is expected to be released.

Phase II
Open label trial, Simon's 2 stage design; PD-L1 all comer

Up to 183
Patients with with 2nd HNSCC or NSCLC in 1st and 2nd line

Up to 12 months
Combination treatment, then pembrolizumab alone for another 12 months

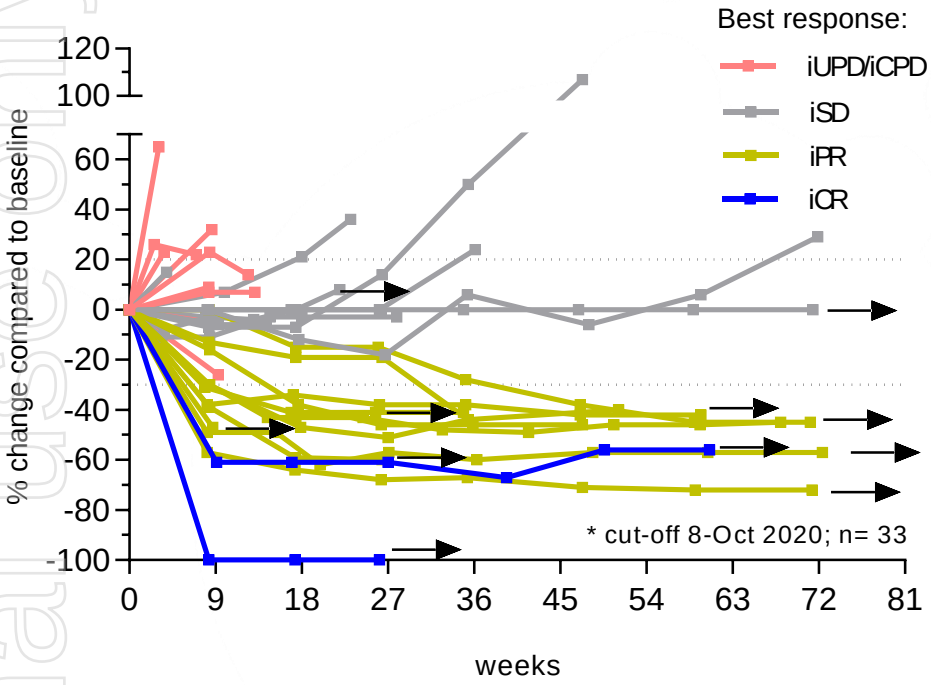
12
Clinical trial sites

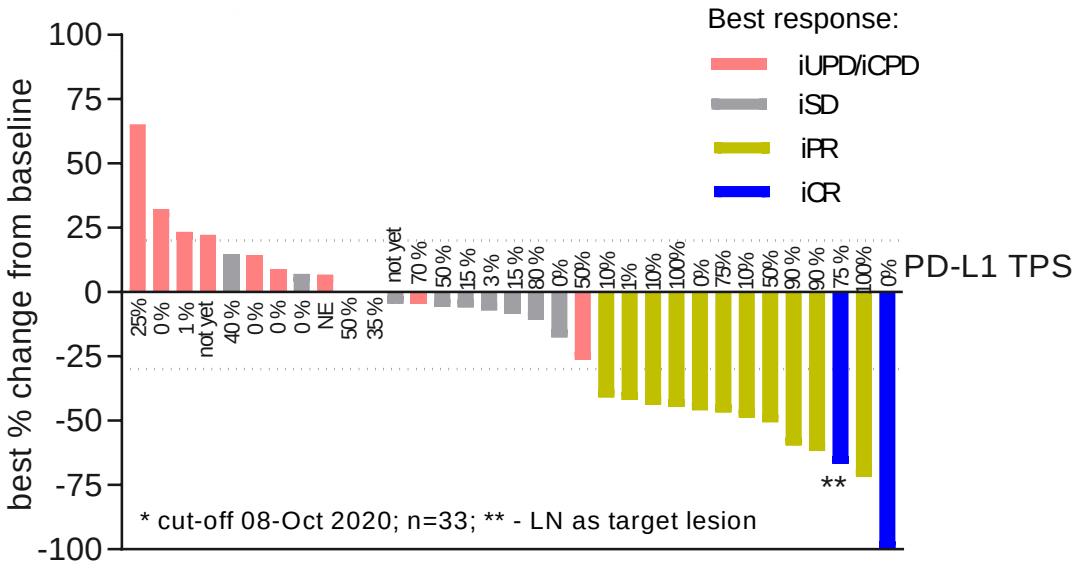
Multi-centre
Australia, Europe and US

Notes:
(1) Internal calculation based on published data: Garon et al, N Engl J Med 2015; 372:2018-2028 available from: https://www.nejm.org/doi/full/10.1056/NEJMoa1501824
(2) Keynote-040 results: EEW Cohen et al. http://dx.doi.org/10.1016/S0140-6736(18)31999-8
(3) CheckMate-017: DOI: 10.1056/NEJMoa1504627; N Engl J Med 2015; 373:123-135

TACTI-002 Results(1)

1st line NSCLC (Part A)





- iORR of 36.1% [95% CI 20.8-53.8]
- 2 complete responses
- 22/36 (61%) with target lesion decrease

- Responses in all PD-L1 subgroups:
- ORR in < 50%: 31.6% (6/19)
- ORR in ≥ 1%: 44% (11/25)
- At data cut-off, 11 pts still under therapy

Notes:

(1) Preliminary data, cut-off 15 Oct 2020

TACTI-002 Results(1)

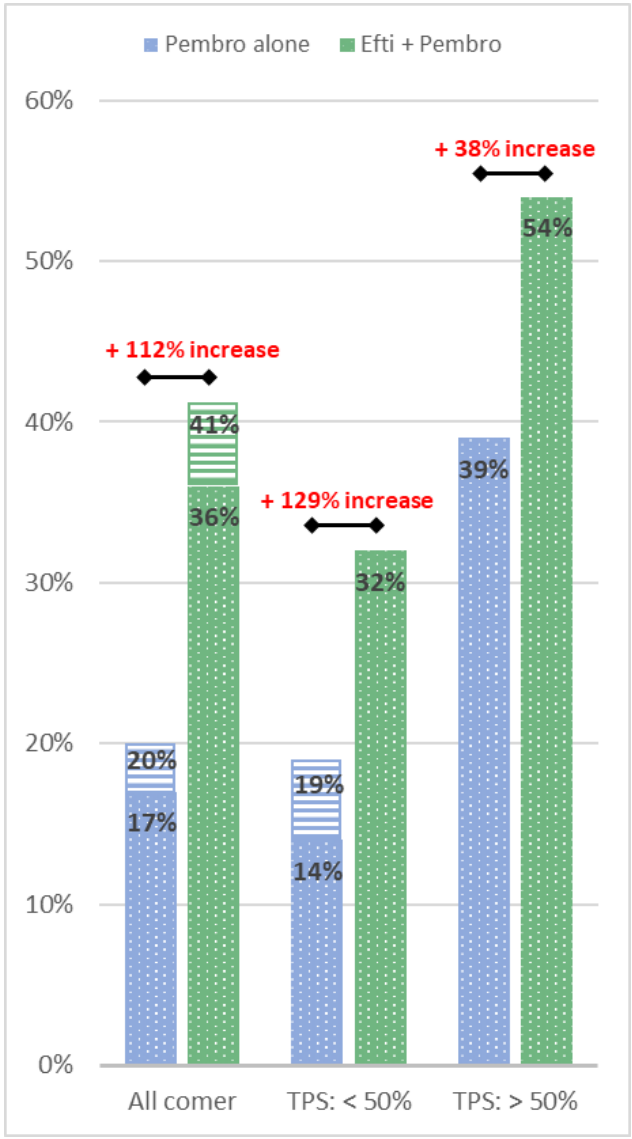
Benchmarking - 1st line NSCLC

	PD-L1 (TPS)	Pembro alone** (KN042/ KN001)	TACTI-002
ORR	All comer (with PD-L1 results)	17-20%	41%* (36%, regardless of available PD-L1 test results)
	>= 50%	39.5%	54%*
	>= 1%	27.3%	44%*
	1-49%	**~17%**	**33%***
	< 50%	**14-19%**	**32%***

* only patients evaluated where PD-L1 test results available (32 out of 36 patients); ** Data for pembro derived from KN042 and KN001(2)(3)

- Most of pembro responses come from 50%+ and especially 90%+ TPS(4)
- Highest unmet medical need in < 50% TPS group → efti adresses these needs.
- TIGIT does not → effects predominantly in ≥ 50% groups.

Efti plus pembro warrants further clinical development in 1st line NSCLC especially considering the excellent safety profile

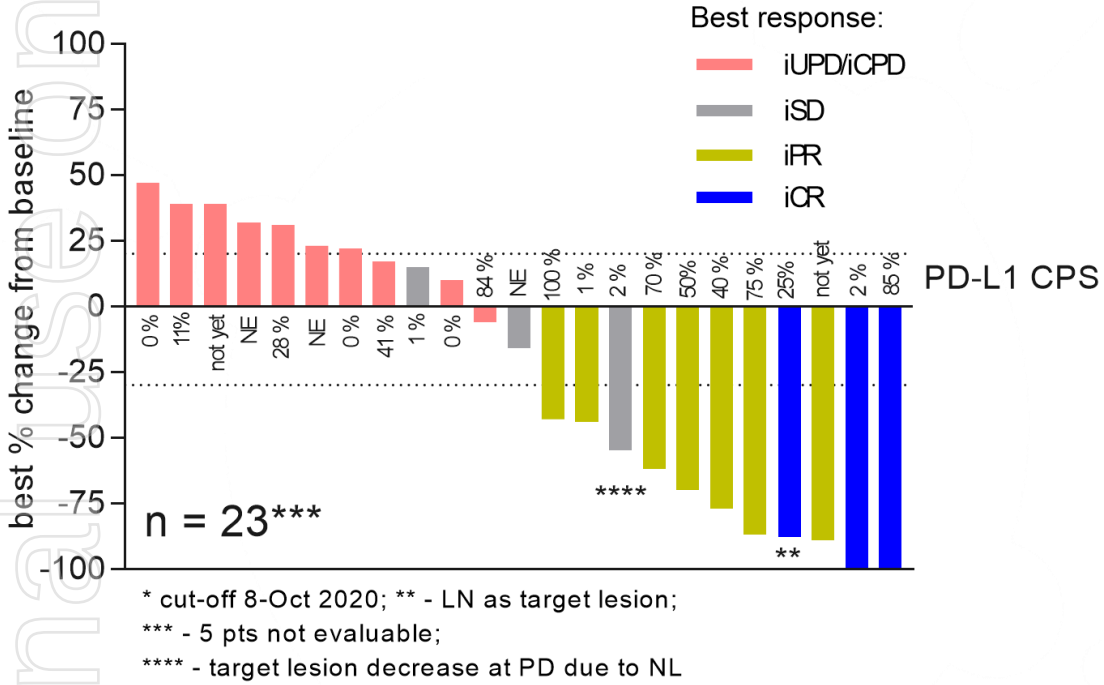


Data for pembro derived from KN042 and KN001(2)(3) and ORR in PD-L1 TPS <1% was taken from doi:10.1093/annonc/mdx076 and used to calculate ORR for TPS <50 for pembro mono. TACTI-002 data cut off 08. Oct. 2020.

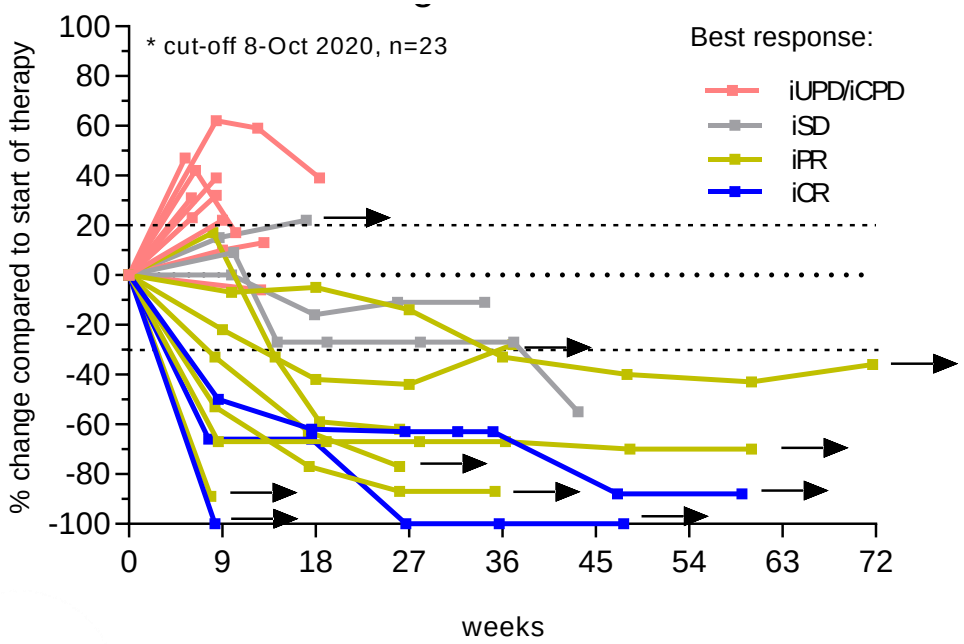
Notes:
(1) Preliminary data, cut-off 08 Oct 2020 for TACTI-002
(2) KEYNOTE-042: TSK Mok et al, The Lancet 2019, http://dx.doi.org/10.1016/S0140-6736(18)32409-7
(3) KEYNOTE-001: NB Leighl et al, The Lancet 2019, http://dx.doi.org/10.1016/S2213-2600(18)30500-9
(4) EJ Aguilar et al; Annals of Oncology 30: 1653–1659, 2019, doi:10.1093/annonc/mdz288

TACTI-002 Results(1)

2nd line HNSCC (Part C)



* cut-off 8-Oct 2020; ** - LN as target lesion;
*** - 5 pts not evaluable;
**** - target lesion decrease at PD due to NL



- All (except one) pts with response ongoing
- PD-L1 all comer trial → responses in PD-L1 low expressors

Notes:
(1) Preliminary data, cut-off 15 Oct 2020

TACTI-002 Results(1)

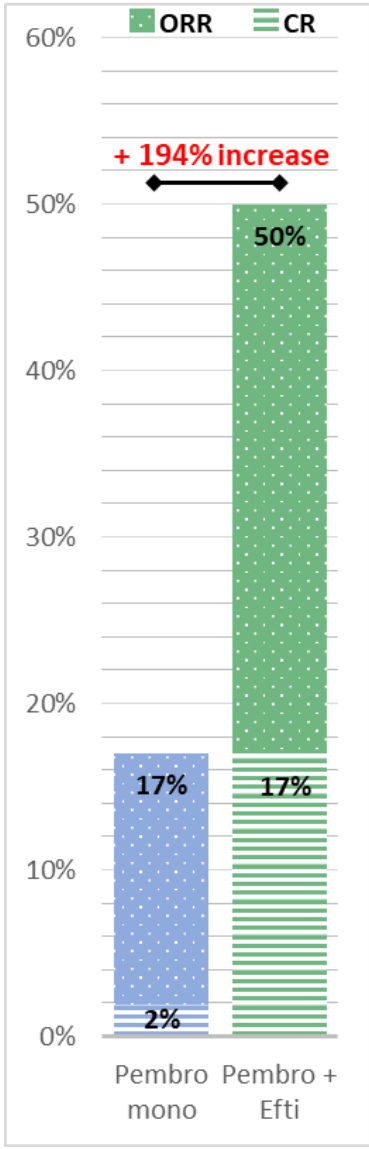
Benchmarking – 2nd line HNSCC

	PD-L1 (CPS)	Pembro alone**	TACTI-002*
ORR	≥1	17.3% 2% CR	50%* 16.7% CR*
	(with PD-L1 results)	14.6%	42.9%* (35.7% regardless of available PD-L1 test results)

* only patients evaluated where PD-L1 test results available (21 out of 28 patients); ** Data for pembro derived from KN040(2)

- ORR of pembro mono generally low → increase to 22% (≥ 20 CPS) and 28% (≥ 50 CPS) (4)
- Duration of response drops dramatically if you add chemo(5) – not the case with efti
- ORR is clearly higher with high rates of CRs; duration of response very promising (only 1 pt with PR discontinued in TACTI-002 so far)

Efti plus pembro warrants late stage clinical development in HNSCC especially considering the excellent safety profile



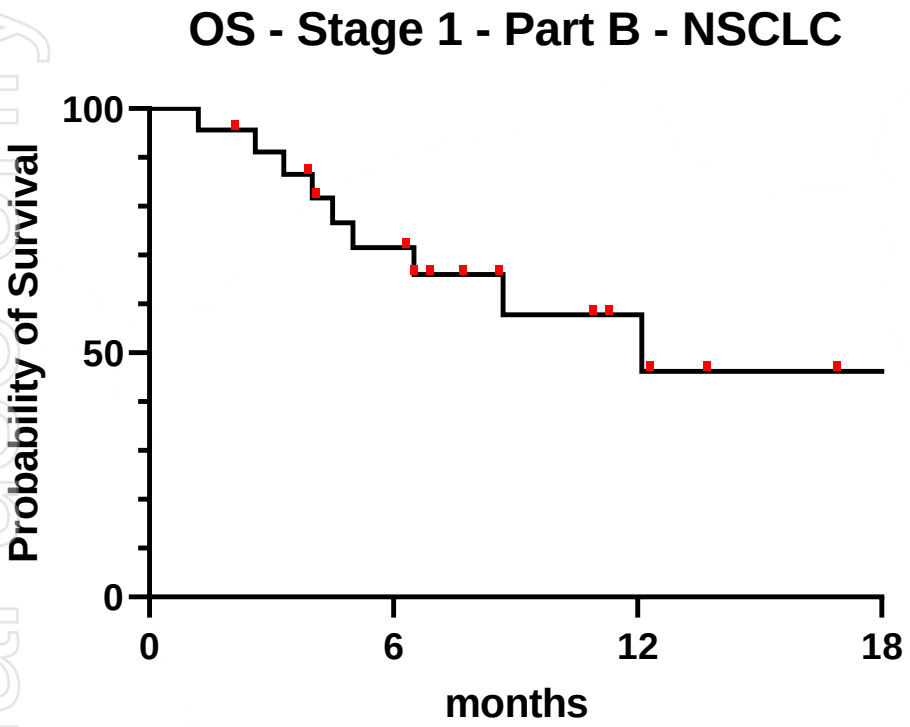
Trial P015 Part C - Historical comparison of ORRs and CRs in metastatic HNSCC for patients who has a PD-L1 CPS of ≥1. ORR for Pembrolizumab monotherapy was taken from KEYNOTE-040.

Notes:

(1) Preliminary data, cut-off 08 Oct 2020
(2) Keynote-040 results: available from https://www.esmo.org/newsroom/press-office/KEYNOTE-040-Evaluates-Pembrolizumab-in-Head-and-Neck-Cancer
(3) RL Ferris et al.: Nivolumab for Recurrent Squamous-Cell Carcinoma of the Head and Neck. N Engl J Med 2016;375:1856-67.
(4) E Cohen et al; *Annals of Oncology* 2019; doi:10.1093/annonc/mdz252
(5) KN-048: The Lancet, 2019; https://doi.org/10.1016/S0140-6736(19)32591-7

Efti: TACTI-002 Results(1)

2nd line NSCLC (Part B) - Benchmarking



- 1 confirmed PR and DCR of 35%
- 72% alive at 6.3 months → encouraging although data immature beyond 6 months
- 50+% alive at 12 months
- At data cut-off, 3 patients still under therapy

- All patients included in this trial had progressed on 1st line therapy containing PD-1/PD-L1, confirmed by 2 consecutive scans.
- 85% of patients have PD-L1 expression level < 50%

Encouraging OS with 12 months
Comparison(2):

- *Docetaxel mOS: 6 months*
- *~24% alive at 12 months*

Notes:

(1) Preliminary data, cut-off 8th Oct 2020

(2) CheckMate-017: DOI: 10.1056/NEJMoa1504627; N Engl J Med 2015; 373:123-135

Efti: INSIGHT-004 Trial in Solid Tumours

INSIGHT-004 is a dose escalation study evaluating efti in combination with Bavencio ® (avelumab). Conducted as the 4th arm of the INSIGHT trial.

In collaboration with Pfizer Merck KGaA, Darmstadt, Germany I.K.F.

Key Results in patients with mostly cancers of the **gastrointestinal tract**:

- No dose limiting toxicity
- 5/12 (41.6%) patients with partial responses

Encouraging single patient cases in cancers that don't usually benefit from immunotherapy.

*Only **5%** of patients usually benefit.*(1)

Data presented at:
ESMO 2020

Next:
Final data expected in 2021

Phase I
Open label trial

12
Patients: 2 cohorts of 6 patients each

6 months
Combination treatment , then 6 months avelumab monotherapy

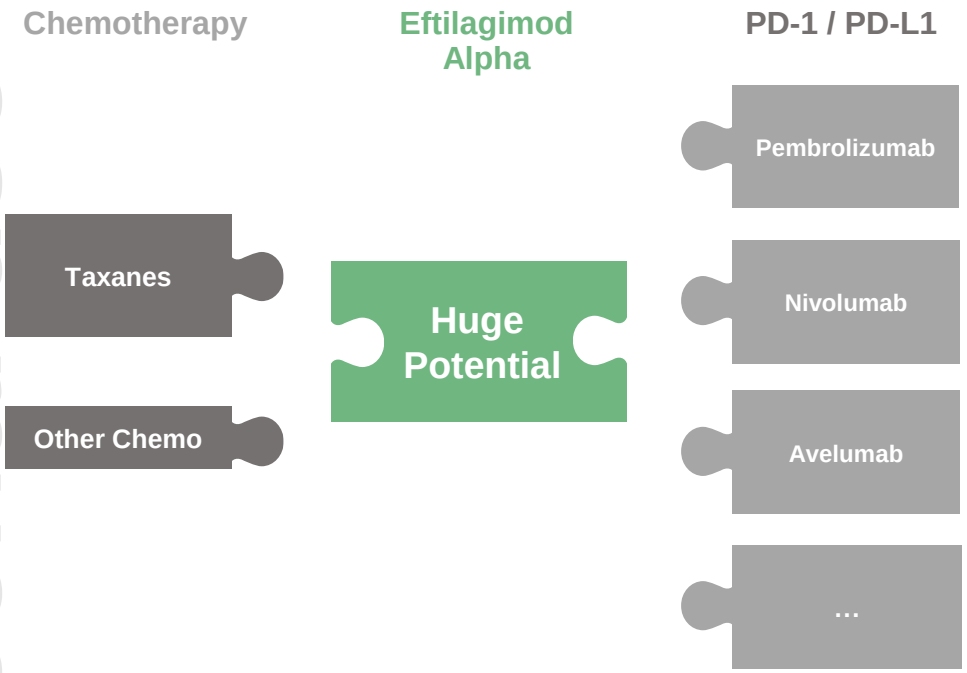
One site
Germany

Notes:
Data cut-off: 12 June 2020.

(1) J Tintelnot, A Stein: Immunotherapy in colorectal cancer: Available clinical evidence, challenges and novel approaches. World J Gastroenterol 2019 August 7; 25(29): 3920-3928

Efti: Current Strategic Potential & Plans

Efti is the ideal candidate to combine with ✓ chemo and ✓ PD-1/PD-L1 antagonists



Efti's current data base includes(1):

Up to 219 patients
in anti-PD-(L)1 combinations

272 patients
in chemo-immuno combination

Safety & efficacy
Good safety & encouraging efficacy data in NSCLC, HNSCC, melanoma and MBC

Big pharma
A variety of development options with big pharma support

Notes:
(1) As at 8th Oct 2020.

TACTI-002 Extension in 1st line NSCLC Results(1)

Design + Status

Eligibility

- Available tumor tissue
- ECOG 0-1
- Adequate organ functions
- **PD-L1 all comer**

Part A:

1st line met. NSCLC

+ 74 pts according to protocol

30 mg efti SC
+
200 mg pembrolizumab IV

Up to 12 months then pembrolizumab alone for another 12 months

Primary: ORR (iRECIST)

Secondary: PFS, OS, PK, biomarker, PD, safety and tolerability

Design:

- Expansion of TACTI-002 Part A: 74 additional pts in order to prepare for registration trials (specific patient population analysis)

Status:

- Approved by all competent authorities (incl. FDA);
- Recruitment commenced with results throughout 2021/2022
- Keytruda supply ensured
- In collaboration with MERCK INVENTING FOR LIFE

Trial in 1st line HNSCC
Potential Design + Status

Design:

- Randomised study with ORR as primary endpoint
- Sites worldwide (AU, US, Europe)
- Approx. 160 pts to be randomized to have sufficient pts in each group

Status:

- Advanced planning & collaboration discussions

Efti Partnerships

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EOC

- EOC, an Eddingpharm spin-off holding the Chinese rights for efti, Phase I study in MBC ongoing with a Phase II trial in preparation (152 patients)
- Milestone and royalty bearing partnership

CYTLIMIC
Cytotoxic T Lymphocyte Immunotherapy in Cancer

- Spin off from NEC, Japan: aims to develop cancer drugs discovered by artificial intelligence → mainly cancer vaccines
- Clinical Trial Collaboration (up to US$5 million for Immutep); Phase I completed

WuXi Biologics
Global Solution Provider

- Strategic supply partnership for the manufacture of efti
- Through WuXi, Immutep was the first company to use a Chinese manufactured biologic in a European clinical trial

DD CRO SMS oncology

CSM A CLINIGEN COMPANY

ERT

SGS

NT NOVOTECH The Asia Pacific CRO

median

atlanbio

mlm medical labs

COVANCE

PhinC Development

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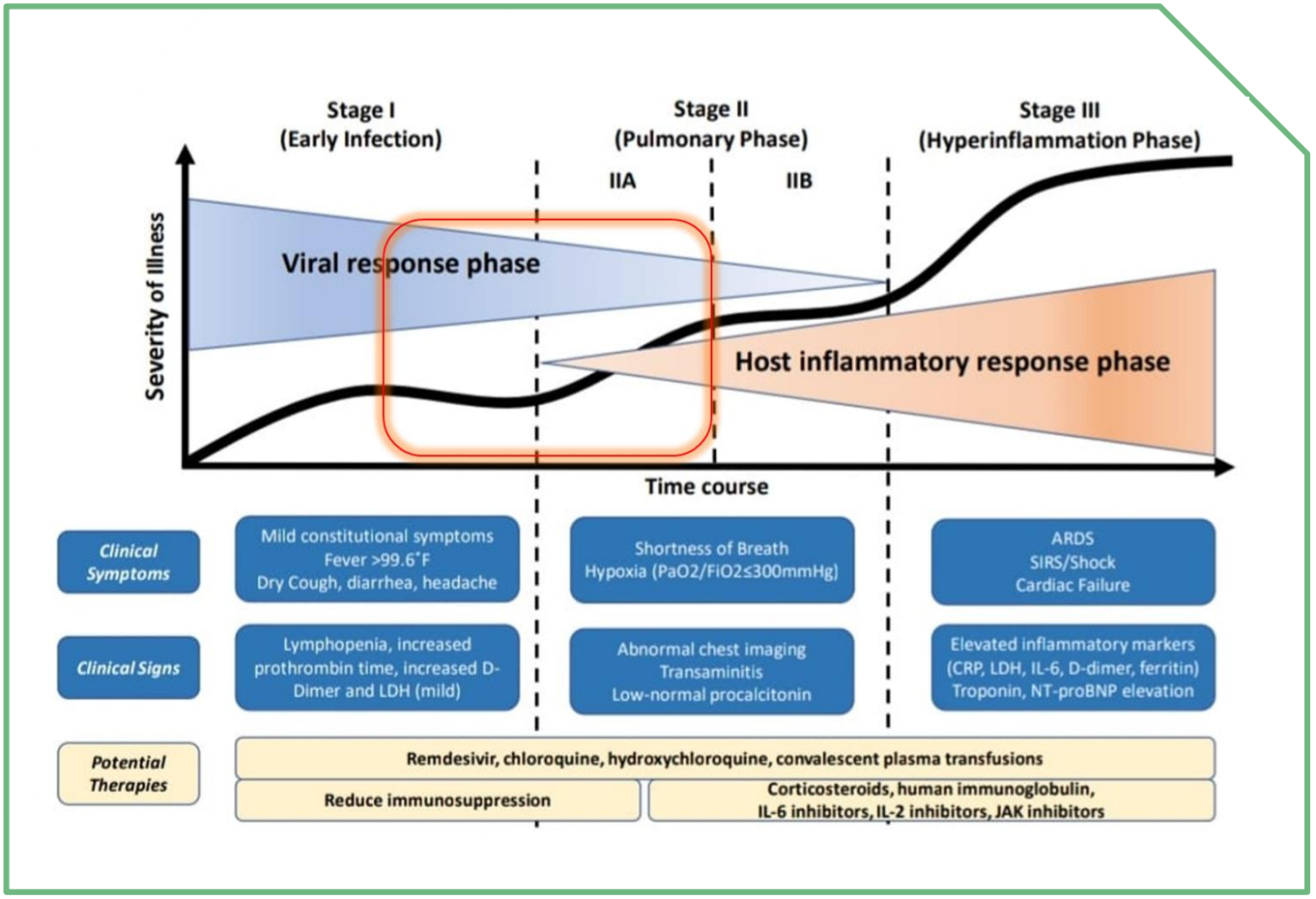
Efti in COVID-19 Patients

EAT COVID trial

Window of opportunity to boost the immune response prior to deterioration requiring intensive care unit (ICU) admission and mechanical ventilation

Goal is to:

- prevent T cell exhaustion and profound lymphopenia
- eradicate the COVID-19 virus
- avoid any extensive organ tissue damage



Notes:

Source: https://covid19.who.int/

EAT COVID trial

EAT COVID is an investigator-initiated trial evaluating efti in hospitalised COVID-19 patients

Aims to “push the gas” on a patient’s immune response to prevent severe COVID-19 symptoms requiring intensive care and leading to respiratory failure and death.

- Fully funded by University Hospital Pilsen, Czech Republic
- Efti supplied under a Material Transfer Agreement

Initial safety run-in data from reviewed by independent Data and Safety Monitoring Board:

- 6 patients - age range, 50-83 years; 2 women, 4 men
- All received full treatment and discharged from hospital
- No adverse events reported

Recommendation to advance to randomised portion of study.

Next:
Opening of recruitment for first cohort of 26 randomised patients

Further results expected in 2021

Phase II
Placebo controlled, double blinded and 1:1 randomised study

Up to 110
Adult patients hospitalised with COVID-19

15 day
Primary endpoint is patient’s clinical status at day 15 (WHO recommended)

Single site
Czech Republic

Efti is currently the only APC activator of its kind being evaluated against COVID-19 in a randomised Phase II trial

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Out-Licensed Immunotherapy Pipeline

LAG525 (IMP701) for Cancer

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- Novartis holds an exclusive WW licence to develop and commercialise LAG525 (which is derived from Immutep's antagonist antibody known as IMP701)
- 1st and 2nd milestone payments received by Immutep in August 2015 (undisclosed) and August 2017 (US$1 million)
- In 2018 Novartis cancelled 90 other R&D programs but continued to invest heavily in progressing the development of LAG525(1)
- Novartis currently has five clinical trials ongoing for LAG525 in multiple cancer indications for over 1,000 patients(2)

NOVARTIS

- **IMP701 is an anti-LAG-3 mAb that blocks LAG-3-mediated immune down-regulation**
- **LAG-3 is a prime target for immune checkpoint blockade as it is readily expressed at a high level in many human tumors**

Notes
(1) https://www.fiercebiotech.com/biotech/novartis-dumps-20-programs-following-pipeline-review
(2) Details on all ongoing trials of LAG525 being conducted by Novartis: https://www.clinicaltrials.gov/ct2/results?cond=&term=novartis+lag525&cntry=&state=&city=&dist=

GSK'781 (IMP731) for Autoimmune Diseases

- GSK holds an exclusive WW licence to develop and commercialise GSK'781 (which is derived from Immutep's depleting antibody known as IMP731)
- Up to £64 million in upfront payments and milestones, plus royalties
- GSK portfolio review in 2017 -> GSK'781 continued despite cancellation of 13 clinical and 20 preclinical programs(1)
- March 2018: Phase I trial in psoriasis completed in 67 subjects/patients(2)
- September 2019: 1st patient dosed in Phase II trial in ulcerative colitis in 242 patients triggered a £4 million (~US$5.0 million) milestone payment to Immutep(2)
- Phase I clinical study completed, evaluating GSK'781 in 36 healthy Japanese and Caucasian subjects, PK/PD study(2)
- Phase II in Ulcerative Colitis discontinued in January 2021

GSK's investigational product, GSK2831781, which is derived from IMP731 antibody, aims to kill the few activated LAG-3+ T cells that are auto-reactive in autoimmune disease leading to long term disease control without generalized immune suppression

Notes
(1) https://www.biopharmadive.com/news/glaxosmithkline-gsk-rd-pipeline-restructuring-cut-q2-earnings/447924/
(2) For additional information refer https://www.clinicaltrials.gov/ct2/results?cond=&term=GSK2831781&cntry=&state=&city=&dist=

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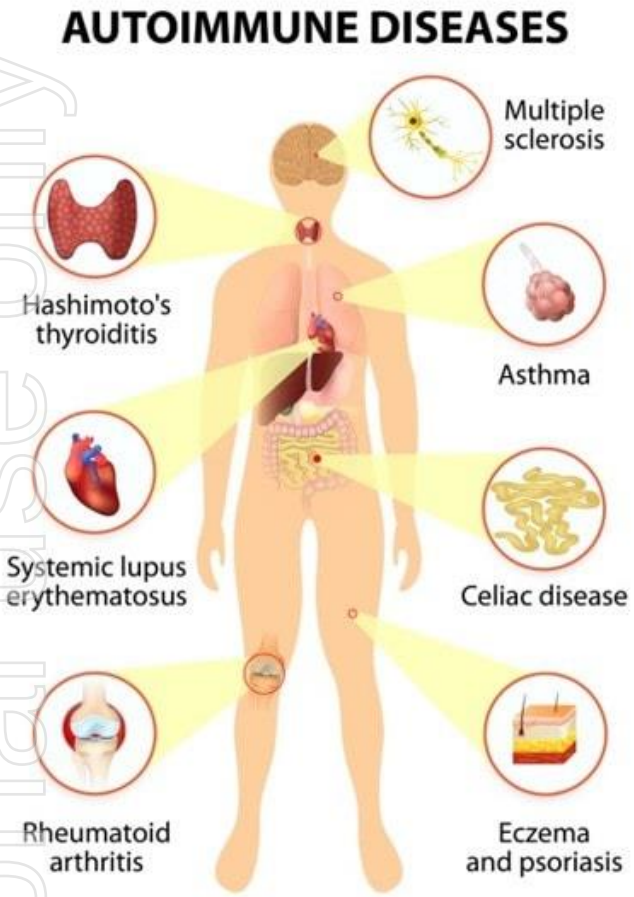
IMP761
- Autoimmune Diseases -

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

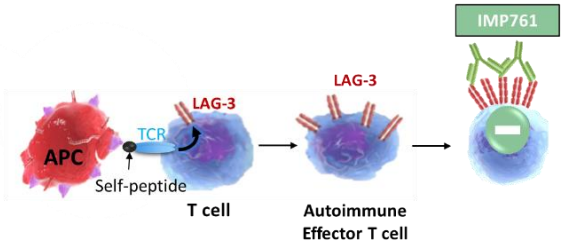


THE PRESENT: FIGHTING THE SYMPTOMS

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 ($149.4 billion market size by 2025)[1]

Notes
(1) Source: KBV Research July 2019

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Other Partnerships

New collaboration with LabCorp

- Licence and Collaboration Agreement for immuno-oncology products or services
- Development of lab tests that may help oncologists select the right therapeutic options for their patients
- Upfront and potential commercial milestone and service related payments to Immutep
- Immutep selected for its LAG-3 expertise

Laboratory Corporation of America Holdings (LabCorp) is a leading global life sciences company focused on guiding patient care that provides diagnostic, drug development and technology-enabled solutions for more than 160 million patient encounters per year.

Enables Immutep to enter the immuno-oncology diagnostics market through its technology and LAG-3 expertise

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Corporate Snapshot & Outlook

Corporate Snapshot

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Ticker symbols	IMM (ASX) IMMP (NASDAQ)
Securities on issue(1) (as at 1 February 2021)	648.7 million ordinary shares
Cash & Term Deposits (as at 31 December 2020)	~A$54.9 million (US$42.3 million)
Market Cap(2) (as at 1 February 2021)	A$256.2 million (US$196.3 million)

Notes:

(1) Currently ~33% of the ordinary shares listed on ASX are represented by ADSs listed on NASDAQ where 1 ADS represents 10 ordinary shares. For a detailed summary of securities on issue refer to latest Appendix 2A released on ASX.

(2) Market capitalization based on ASX share price and basic ordinary shares outstanding.

2020 & 2021 News Flow*

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2020

- ✓ **AIPAC** – PFS, ORR, Overall Survival delivered
- ✓ US **IND** for MBC
- ✓ **TACTI-002** – recruitment & data delivered e.g. at ASCO, EMSO & SITC for
  - ✓ 1st line NSCLC
  - ✓ 2nd line NSCLC
  - ✓ 2nd line HNSCC
- ✓ Support of global **COVID** efforts (Phase II)
- ✓ New **partnerships**: LabCorp
- ✓ Progress from **IMP761**
- ✓ Expansion of **IP portfolio**
- ✓ Strong **financial position**

2021

- ❑ Final data from **AIPAC**: 2nd OS follow up
- ❑ Data from **TACTI-002** Parts A, B and C
- ❑ Recruitment & first data from **TACTI-002** Part A extension
- ❑ Start & ongoing recruitment of **new trial in 1st line HNSCC**
- ❑ Final data from **INSIGHT-004**
- ❑ Ongoing **regulatory** engagement
- ❑ Updates from **IMP761**
- ❑ Updates from partnered programs (e.g. GSK, Novartis, EAT COVID, CYTLIMIC and EOC Pharma)
- ❑ Potential new partnerships and expansion of existing programs

Plus, the potential validation of LAG-3 through readout of BMS's Phase III data for relatlimab

Notes:
*The actual timing of future data readouts may differ from expected timing shown above. These dates are provided on a calendar year basis.

Summary

Global leadership position in LAG-3 with four related product candidates in immuno-oncology and autoimmune disease

Multiple active clinical trials (including partnered candidates), with further significant data read-outs in 2021

Compelling clinical data from efti & strong rationale to combine with multiple FDA approved treatments

Established commercial partnerships with Merck (MSD), Pfizer / Merck KGaA, Novartis and GSK

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Thank You