immutep
LAG-3 IMMUNOTHERAPY

The global leader in developing LAG-3 therapeutics

Corporate Presentation
May 2021

(ASX: IMM, NASDAQ: IMMP)

Notice: Forward Looking Statements

The purpose of the presentation is to provide an update of the business of Immutep Limited ACN 009 237 889 (ASX:IMM; NASDAQ:IMMP). These slides have been prepared as a presentation aid only and the information they contain may require further explanation and/or clarification. Accordingly, these slides and the information they contain should be read in conjunction with past and future announcements made by Immutep and should not be relied upon as an independent source of information. Please refer to the Company's website and/or the Company's filings to the ASX and SEC for further information.

The views expressed in this presentation contain information derived from publicly available sources that have not been independently verified. No representation or warranty is made as to the accuracy, completeness or reliability of the information.

Any forward-looking statements in this presentation have been prepared on the basis of a number of assumptions which may prove incorrect and the current intentions, plans, expectations and beliefs about future events are subject to risks, uncertainties and other factors, many of which are outside Immutep's control. Important factors that could cause actual results to differ materially from assumptions or expectations expressed or implied in this presentation include known and unknown risks. Because actual results could differ materially to assumptions made and Immutep's current intentions, plans, expectations and beliefs about the future, you are urged to view all forward-looking statements contained in this presentation with caution.

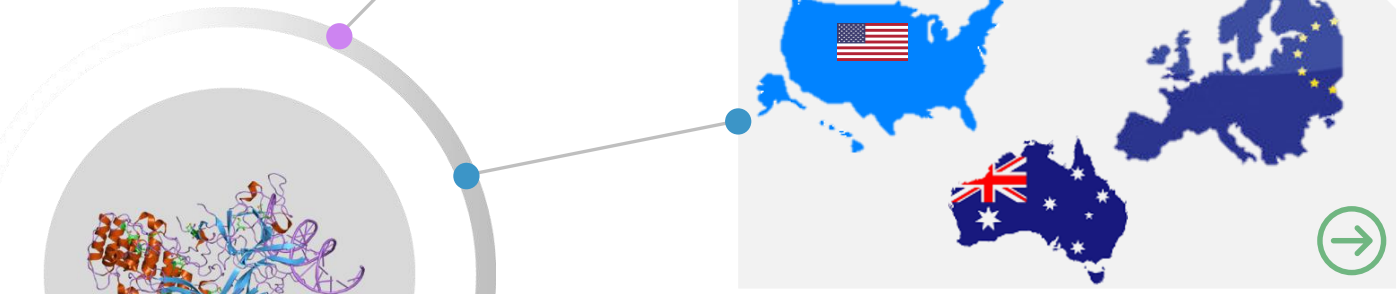
This presentation should not be relied on as a recommendation or forecast by Immutep. Nothing in this presentation should be construed as either an offer to sell or a solicitation of an offer to buy or sell shares in any jurisdiction.

This presentation is authorised for release by the CEO of Immutep Limited.

Overview

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 partner 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 (e.g. Allianz Group), 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

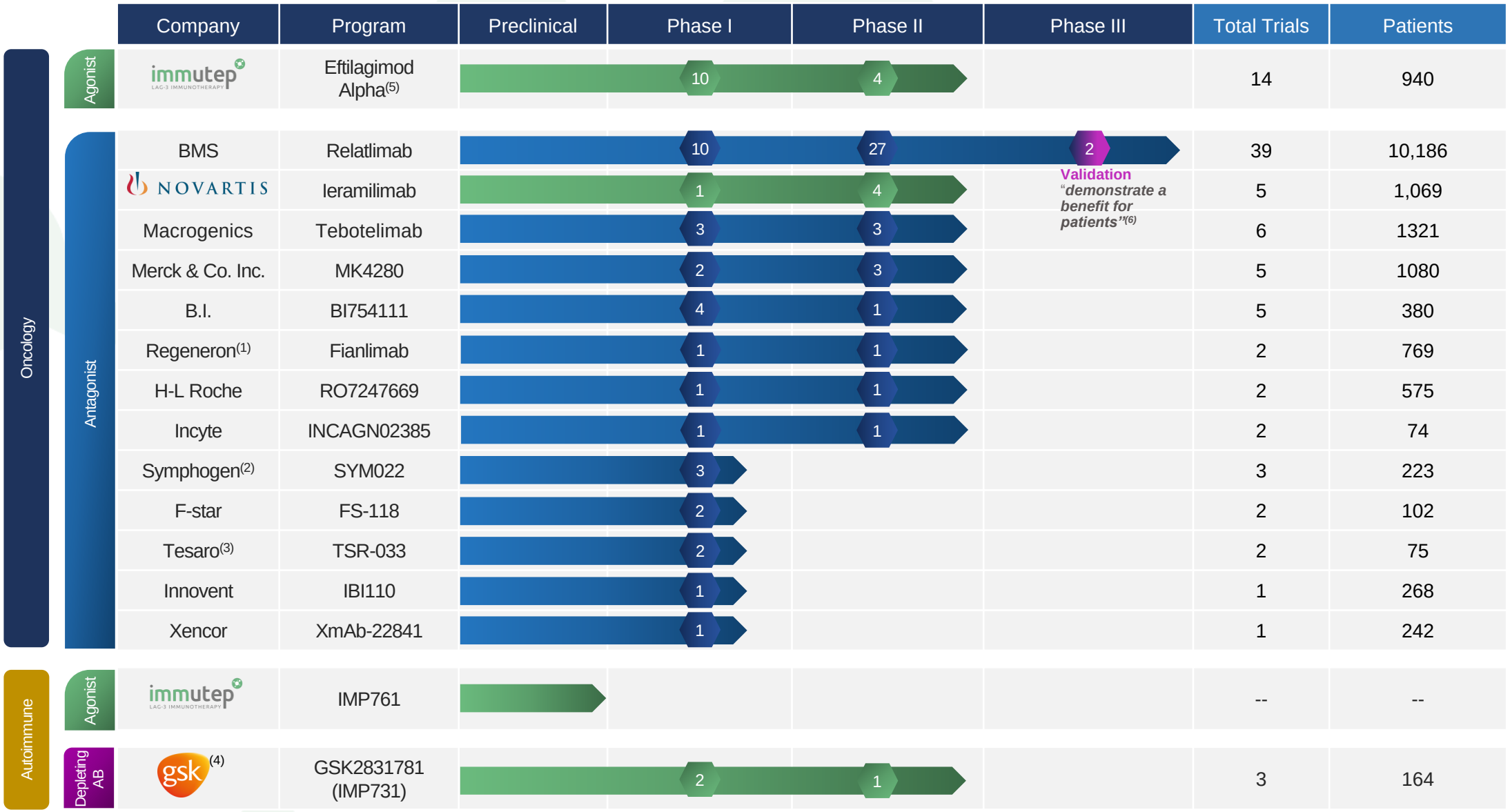
Deanne Miller
Chief Operating Officer, General Counsel & Company Secretary

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

immutep
LAG-3 IMMUNOTHERAPY

LAG-3 Overview
- The most promising immune checkpoint -

LAG-3 Therapeutic Landscape Overview

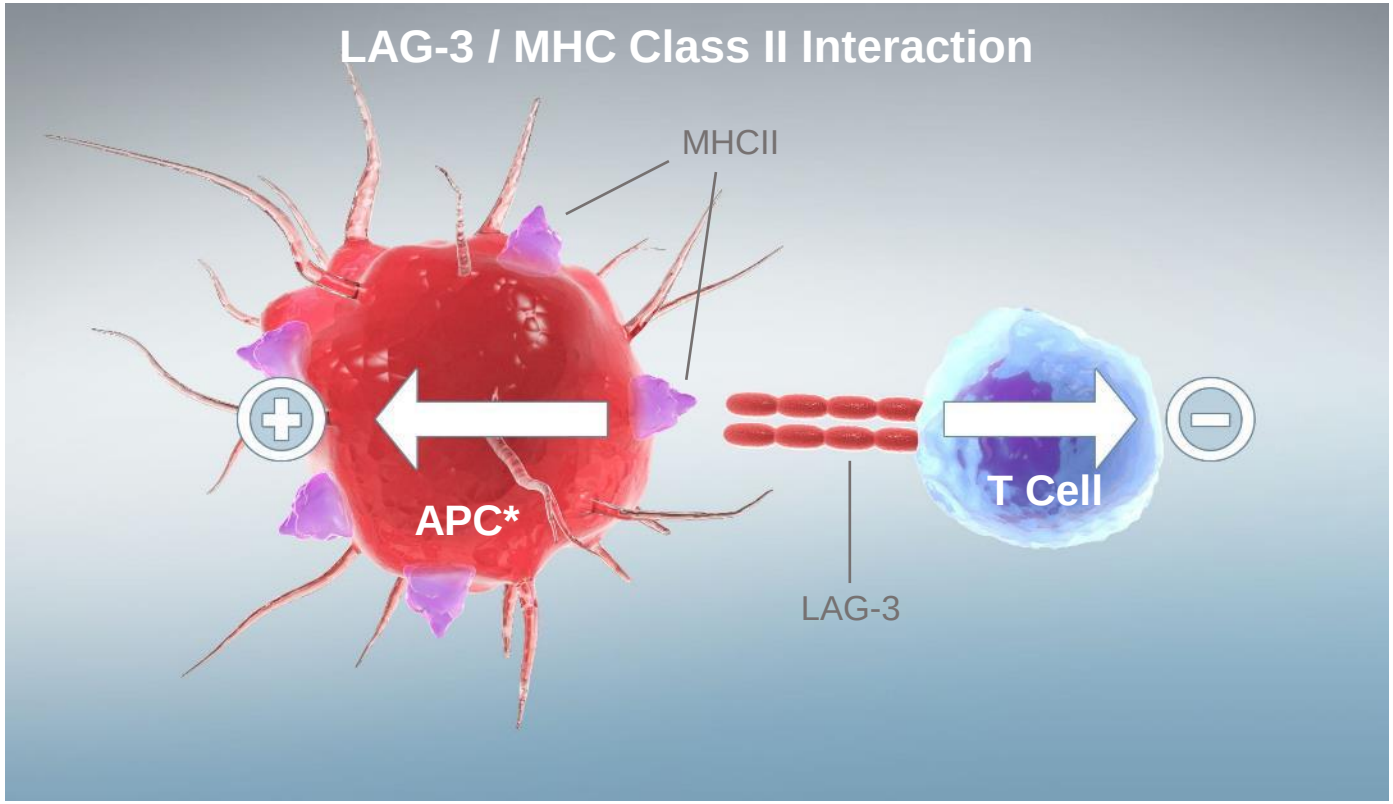


Sources: GlobalData, Company websites, clinicaltrials.gov, and sec.gov, as of **May 2021.** The green bars above represent programs conducted by Immutep &/or its partners. Total trials includes all active, completed &/or inactive trials. Patient totals are based on estimated total enrolled &/or to be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

1) As of January 7, 2019 Regeneron is in full control of program and continuing development (https://www.sec.gov/Archives/edgar/data/872589/000110465919000977/a19-1325_18k.htm)
2) On 3 Apr. 2020 Les Laboratoires Servier Acquires Symphogen
3) Tesaro was acquired by and is now part of GSK (www.gsk.com/en-gb/media/press-releases/gsk-completes-acquisition-of-tesaro-an-oncology-focused-biopharmaceutical-company/)
4) Includes two completed Phase I studies and one discontinued Phase 2 study (see slide 9)
5) Including IITs, two planned trials (MBC trial by EOC and HNSCC trial) and the EAT COVID trial
6) RELATIVITY-047 (https://investors.bms.com/iframes/press-releases/press-release-details/2021/Bristol-Myers-Squibb-Announces-RELATIVITY-047-a-Trial-Evaluating-Anti-LAG-3-Antibody-Relatlimab-and-Opdivo-nivolumab-in-Patients-with-Previously-Untreated-Metastatic-or-Unresectable-Melanoma-Meets-Primary-Endpoint-of-Progression-Free-Survival/default.aspx)

LAG-3 as a Therapeutic Target

LAG-3, an immune checkpoint, is widely expressed on tumor infiltrating lymphocytes (TILs) and cytotoxic T cells → **Prime target for immune therapy**



→ **Positive regulation** of antigen presenting cells (**APCs**) → increase in antigen presentation to cytotoxic $CD8^+$ T cells

→ **Negative regulation** of LAG-3^+ T Cells

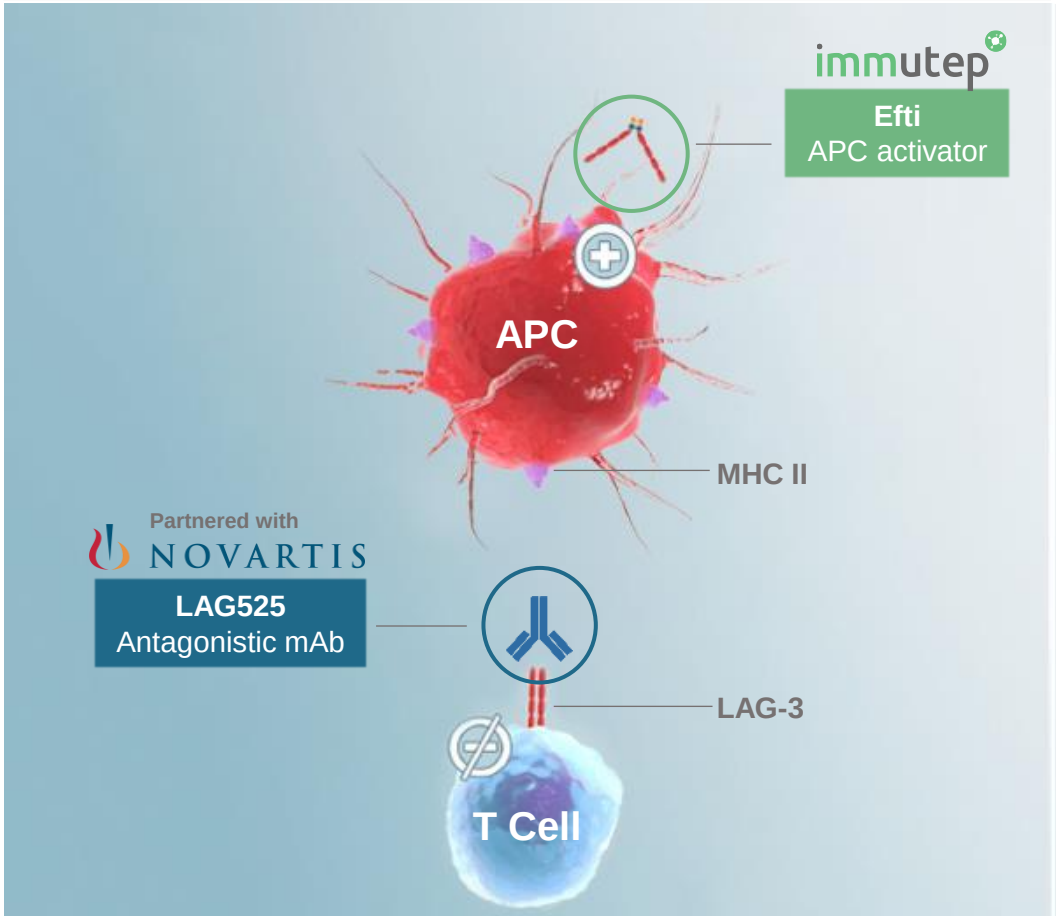
Notes:
* APC: antigen presenting cell

Targeting LAG-3 / MHC II:

Multiple Therapeutics in Numerous Diseases

immutep
LAG-3 IMMUNOTHERAPY

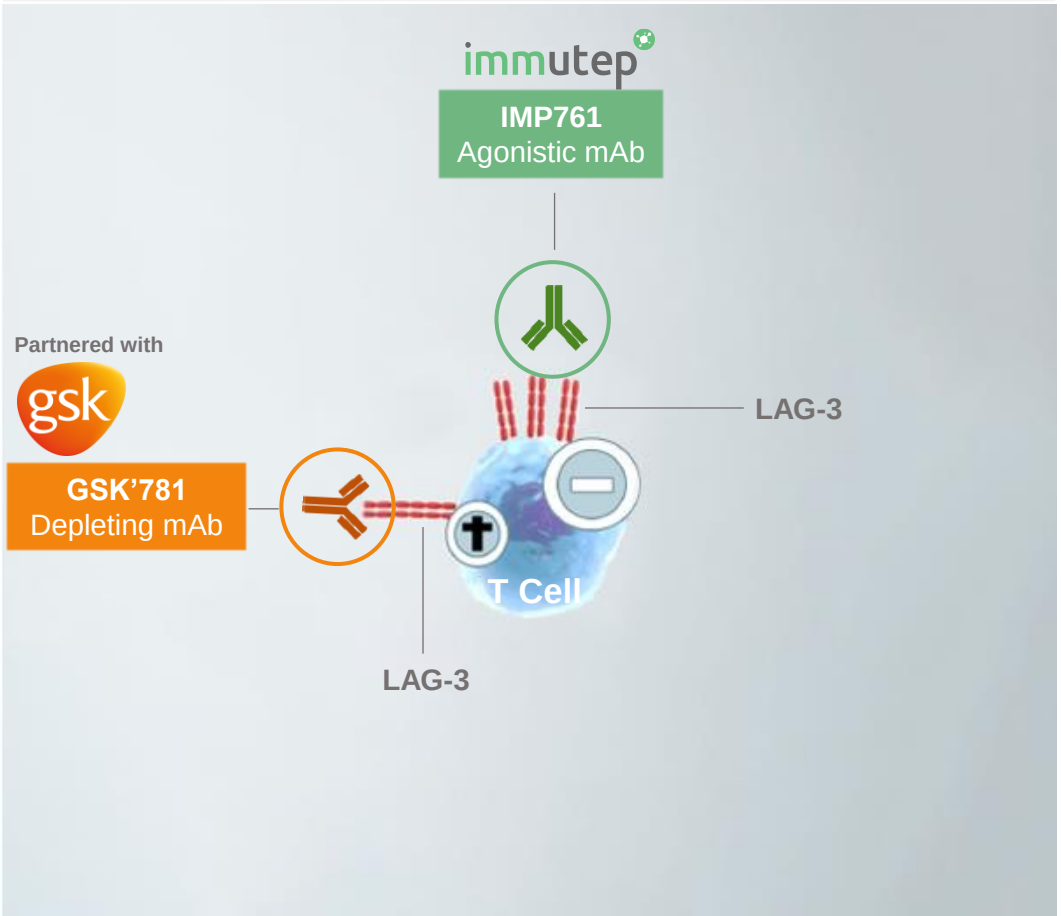
IMMUNOSTIMULATION



RELEVANT DISEASES

- Immuno-oncology Combination Therapies
- Viral Infections

IMMUNOSUPPRESSION



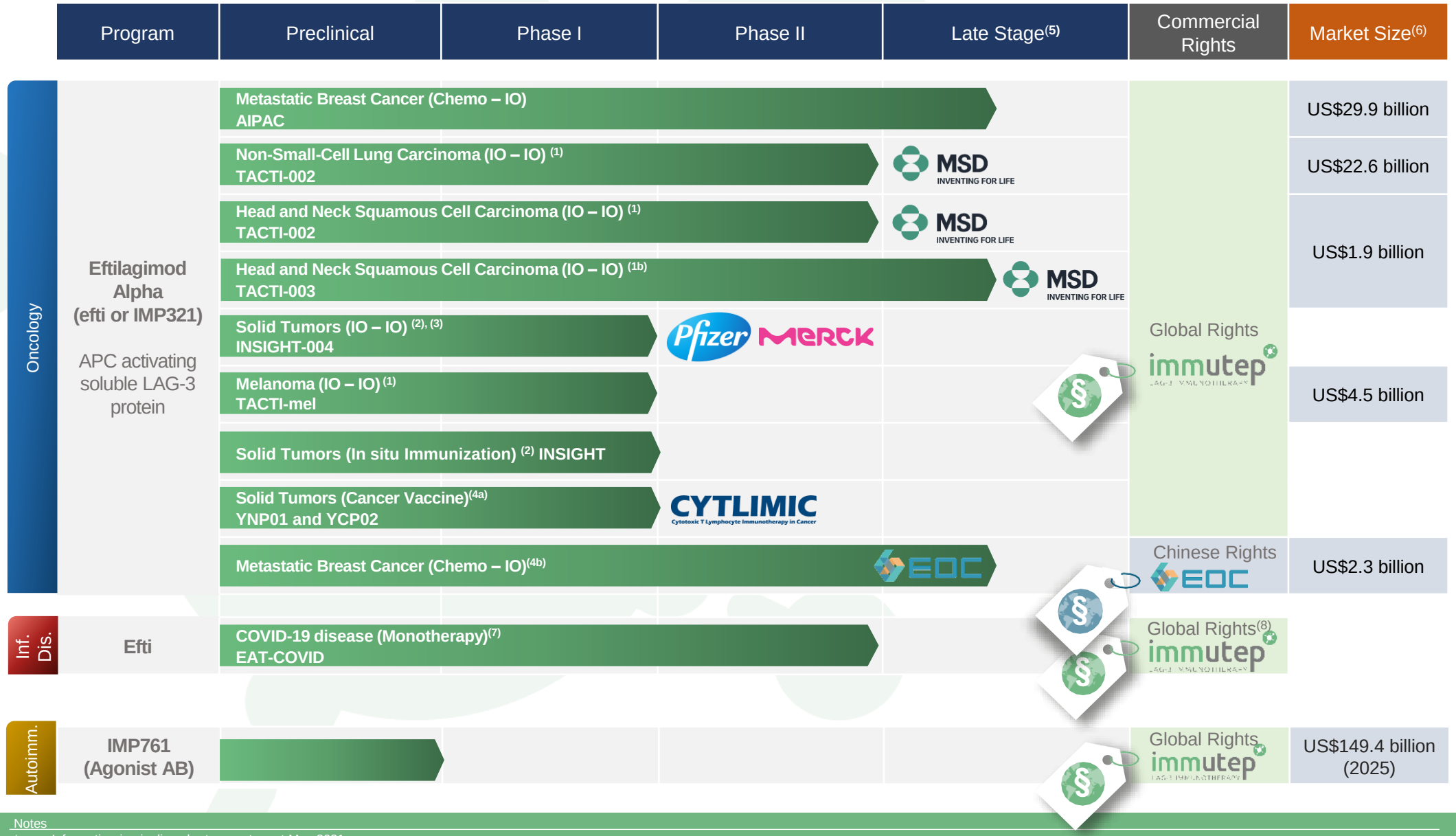
RELEVANT DISEASES

- Rheumatoid Arthritis
- IBD
- Multiple Sclerosis

Notes:

* APC: antigen presenting cell

Immunotherapy Pipeline*



Notes

* Information in pipeline chart current as at May 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.

(8) Ex China

Immutep Out-Licensed Immunotherapy Pipeline*

immutep
LAG-3 IMMUNOTHERAPY

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 May 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

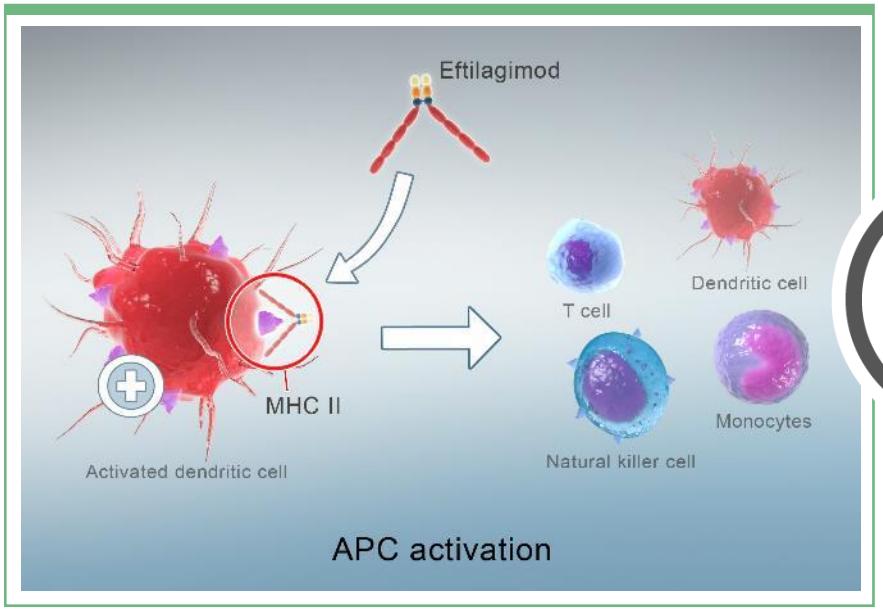
immutep
LAG-3 IMMUNOTHERAPY

Eftilagimod Alpha (efti or IMP321)

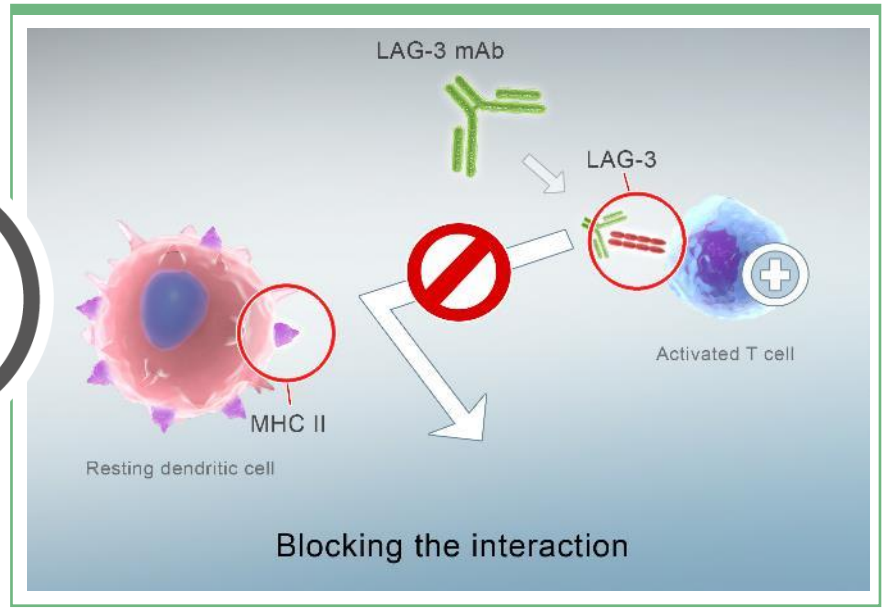
Efti: an Innovative LAG-3 IO Product Candidate

- the only MHC II agonist (APC activator) product candidate currently in clinical development
- synergistic with other therapeutic agents and modalities e.g. IO agents or chemotherapy

"PUSHING THE ACCELERATOR ON IMMUNE RESPONSES"



"RELEASING THE BRAKE ON THE T CELL"



Efti is an **MHC II agonist**

APC activator

- boosts and sustains cytotoxic T cell responses
- activates multiple immune cell subsets

LAG-3 antagonist (or LAG-3 blocking) antibodies:

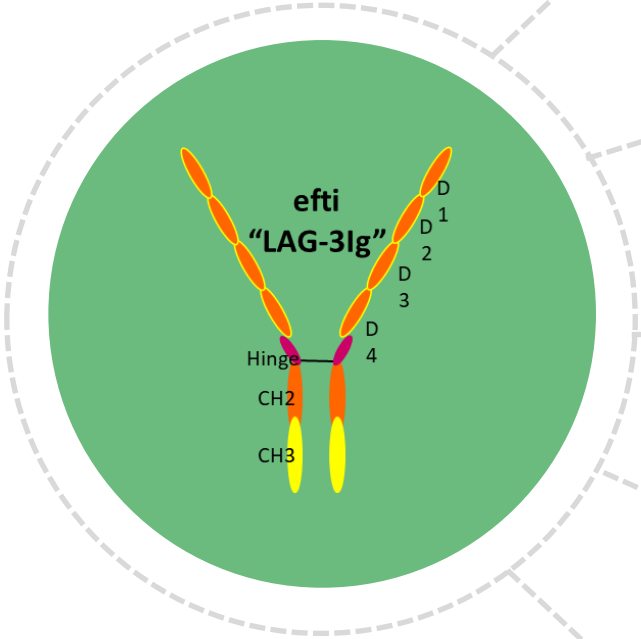
Immune checkpoint inhibitor

- increases cytotoxicity of pre-existing CD8 T cell response

Notes:
* APC: antigen presenting cell

Efti: Potential Pipeline in a Product

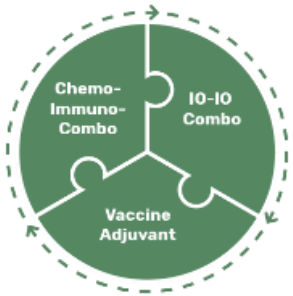
High intrinsic value



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: subcutaneous
Dose: 30 mg every 2 weeks*

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

Boosting APCs with efti to create stronger adaptive immunity against the tumor

Efti

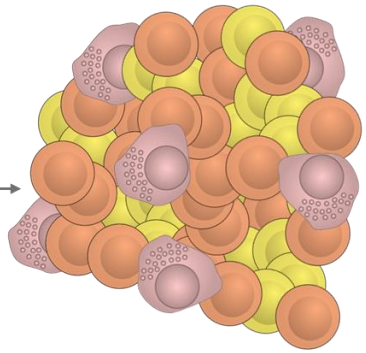
APC

CD80 $^{+}$ CD86 $^{+}$ CD40^{+}
MHC I-II^{+} CD83^{-}
Antigen capture^{+}
CCR5^{+} CCR4^{-}

Activation/Maturation

CD80 $^{++}$ CD86 $^{++}$ CD40 $^{++}$
MHC I-II $^{++}$ CD83 $^{+}$
Antigen capture $^{-}$
CCR5^{-} CCR7 $^{+}$
Lymphoid chemokines, IL-12

Increased numbers of activated
CD4+ T cells / CD8+ T cells / NK cells

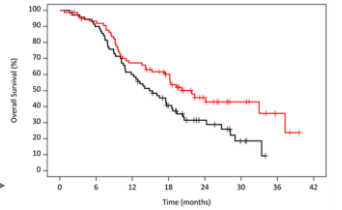


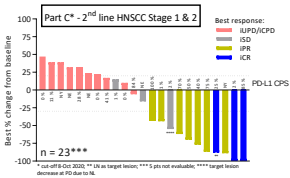
Pro-inflammatory cytokines

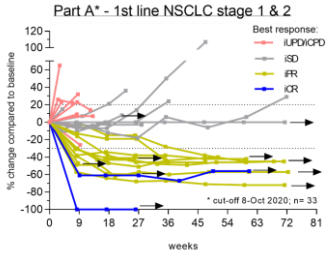
Chemokines

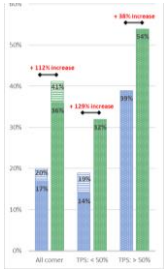
Cytotoxic molecules

Promising Efficacy & Safety









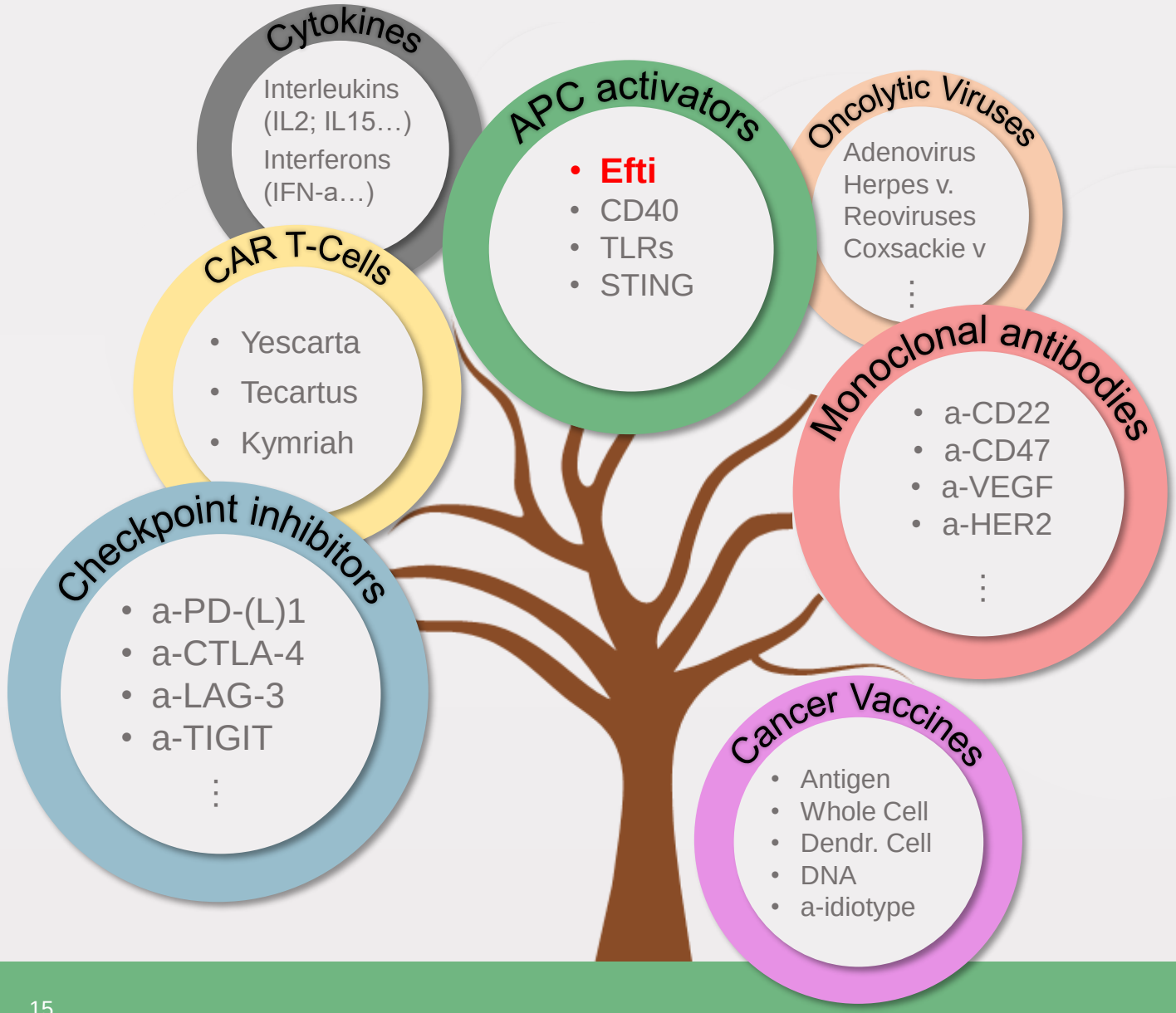
BASED ON PRE-CLINICAL RESULTS

BASED ON CLINICAL RESULTS

Notes:
* APC: antigen presenting cell

Eftilagimod Alpha

Leader in it´s Class of Oncology Products



Efti:

- No direct competition in Mechanism of Action.
- No other MHC-II agonist under development.
- IP protected until 2036.
- Proven in randomized, placebo-controlled setting.
- Excellent safety profile.
- Low cost of goods.

Efti is very well positioned in the field

immutep
LAG-3 IMMUNOTHERAPY

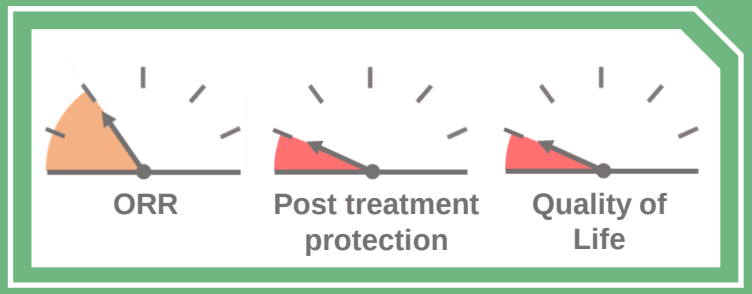
Efti + Chemo Combination:

Exciting interim OS results announced in December 2020

immutep
LAG-3 IMMUNOTHERAPY

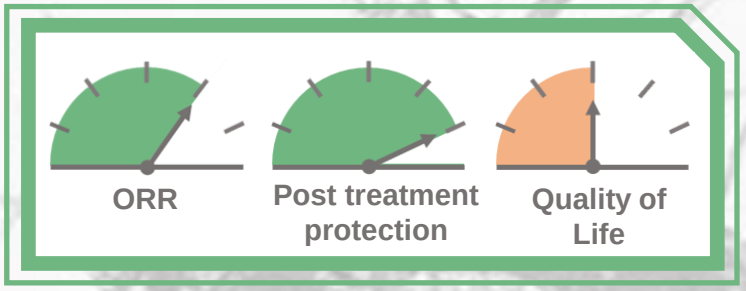
Chemotherapy

- Relatively high response rates
- But not very durable
- Reduced QoL with numerous severe side effects



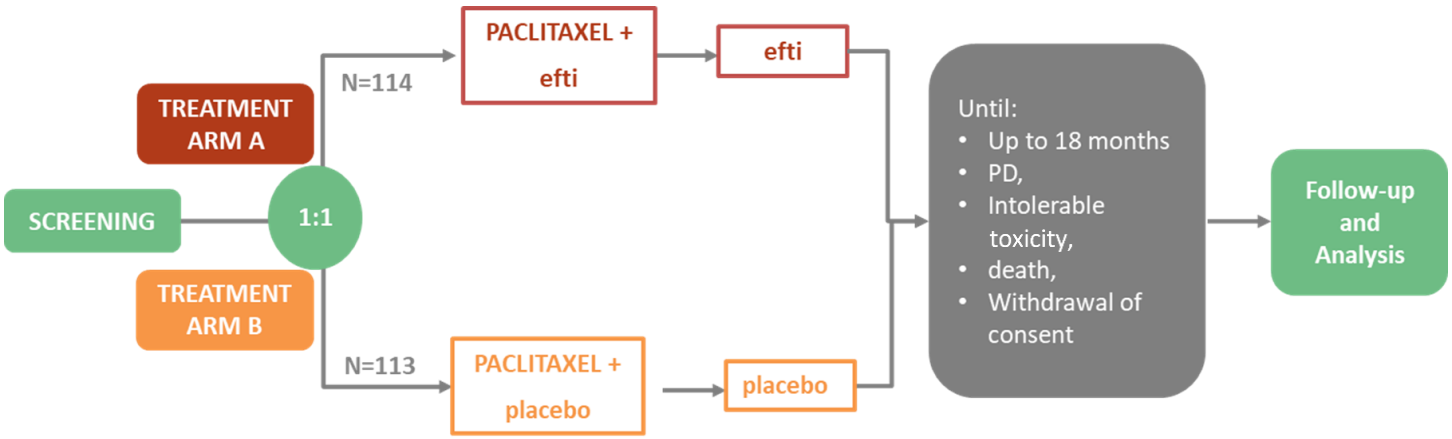
How can we boost / prolong this chemotherapy-induced response with minimal additional side effects?

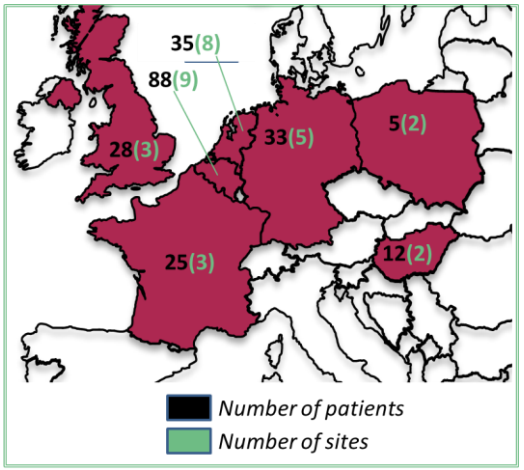
Activating antigen presenting cells with soluble LAG-3 via MHC II



Efti: AIPAC (Phase IIb) design

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





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

- Assessment of Progression-Free Survival (PFS)

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

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

Fact sheet

✓ Conducted in 7 EU countries

✓ Local and blinded independent central read

✓ Last Patient In enrolled Jun. 2019

✓ Primary analysis PFS (immature OS) Mar. 2020

✓ Follow-up 1 analysis OS Sep. 2020 (SABCS Dec. 2020) – ~60% OS events

❖ 2nd OS follow-up analysis planned H2 2021

Notes:

* No hypothesis testing

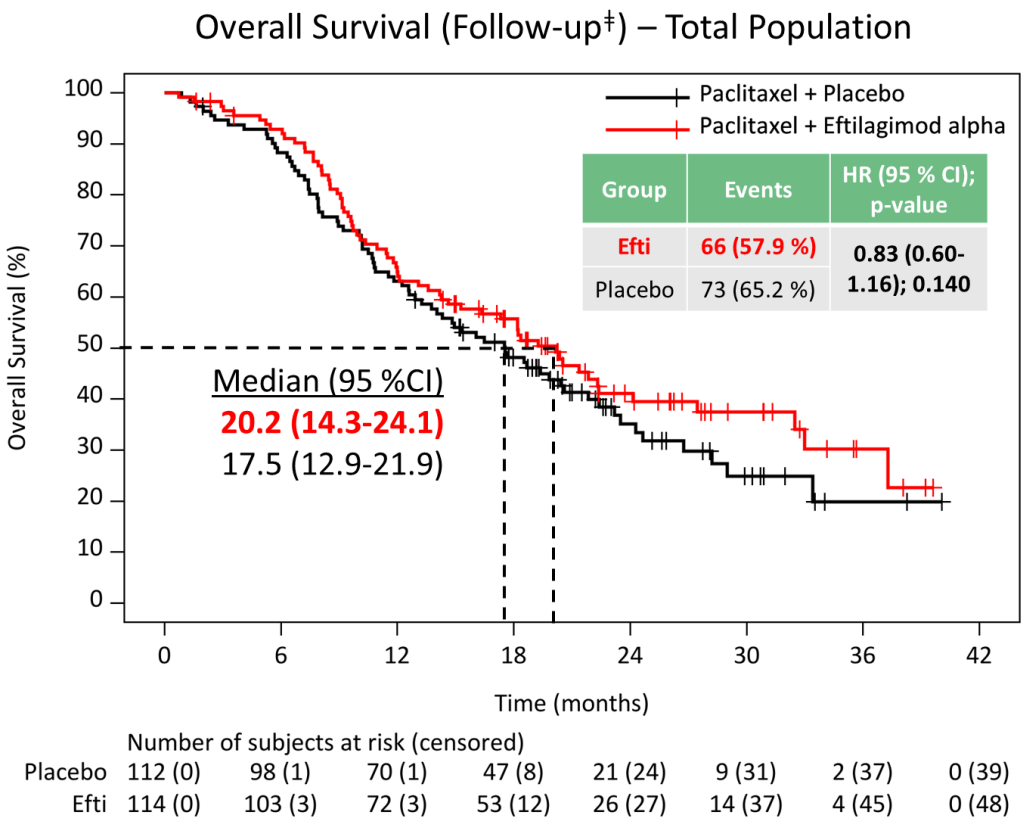
ORR – overall response rate, DCR – disease control rate, PFS – progression free survival, OS – overall survival, QoL – Quality of life

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

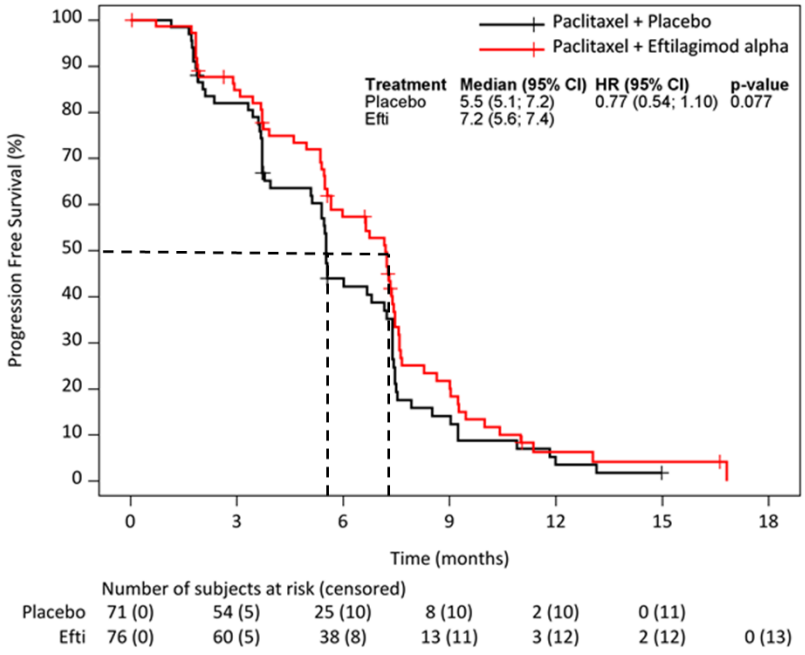
AIPAC Phase IIb Clinical Results

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

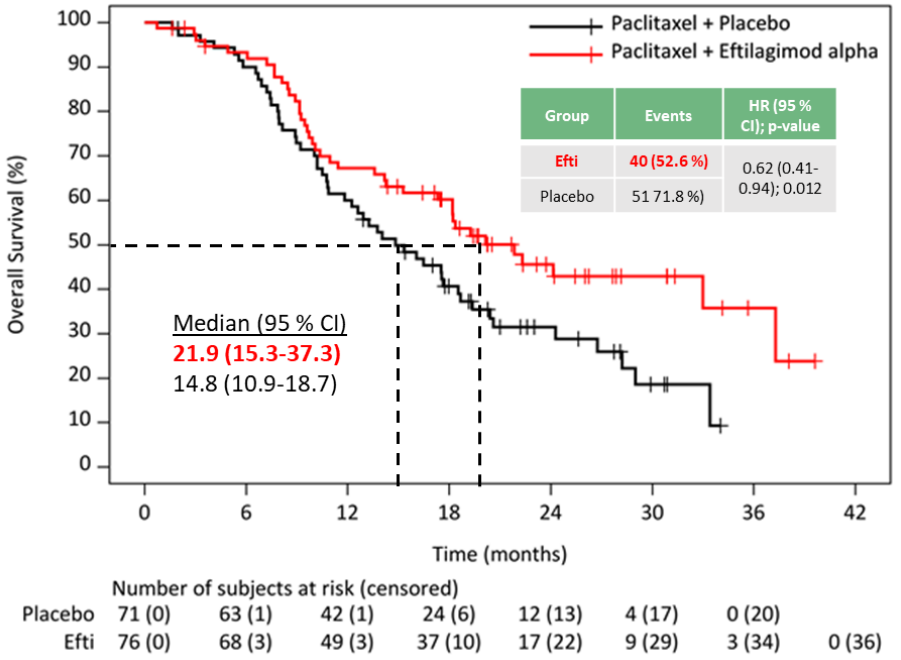
Clinically meaningful absolute and relative improvement for all efficacy parameters, significance for OS

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

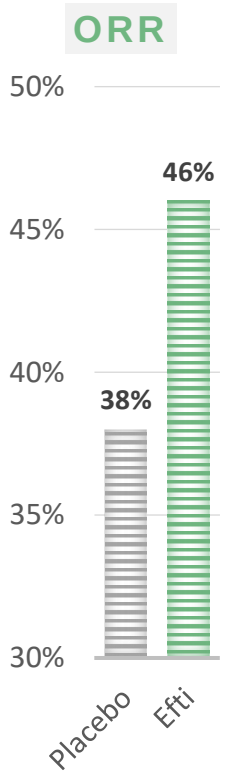
Patients with age < 65 yrs. - PFS -



Patients with age < 65 yrs. - OS -



ORR



+7.1 months median OS

Notes:

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

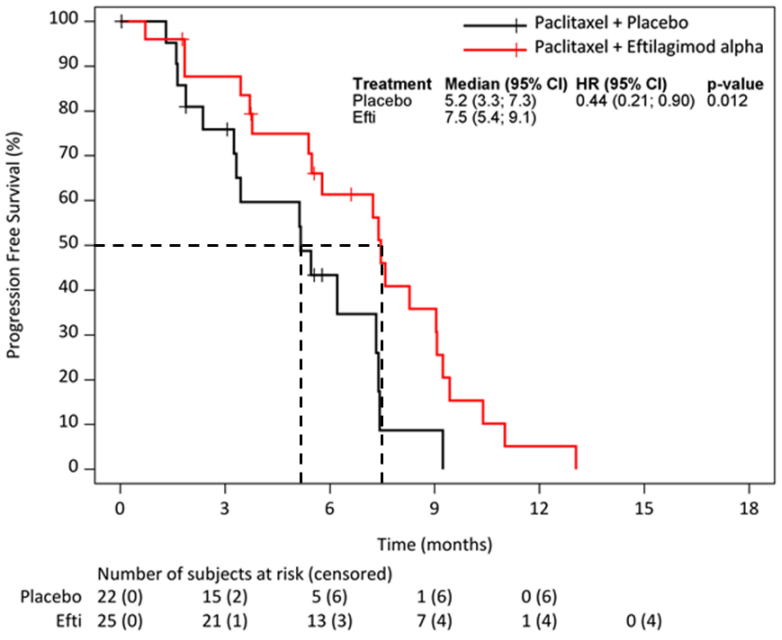
AIPAC Phase IIb Clinical Results

Subgroup 2: Low Monocytes – PFS / OS / ORR

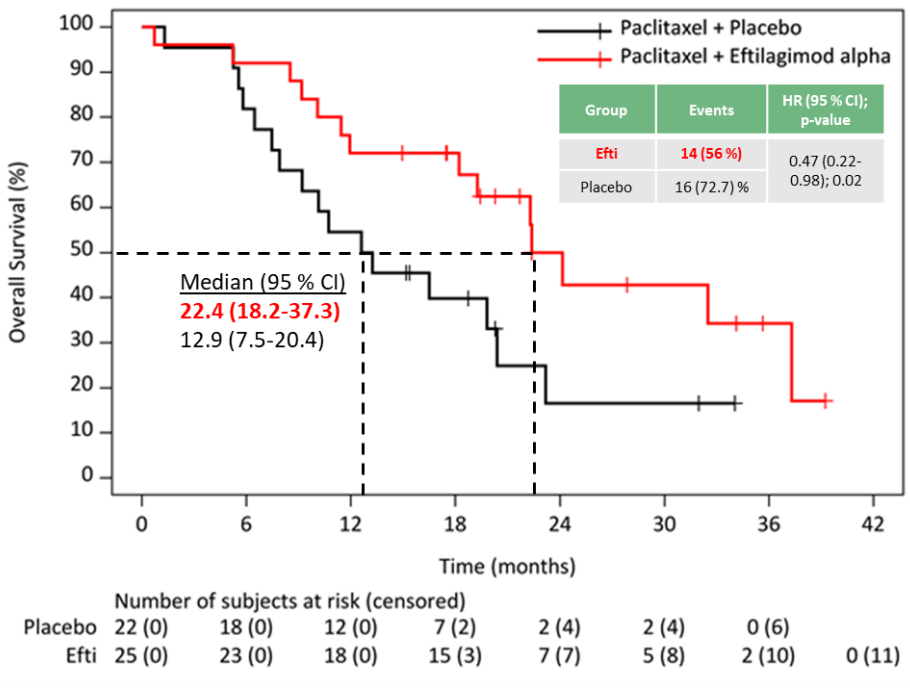
Clinically meaningful, absolute and relative improvement for all efficacy parameters, significance for PFS/OS

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

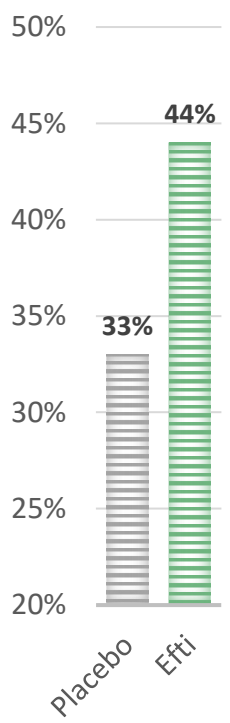
Patients with low monocytes - PFS -



Patients with low monocytes - OS -



ORR



+9.1 months median OS

Notes:

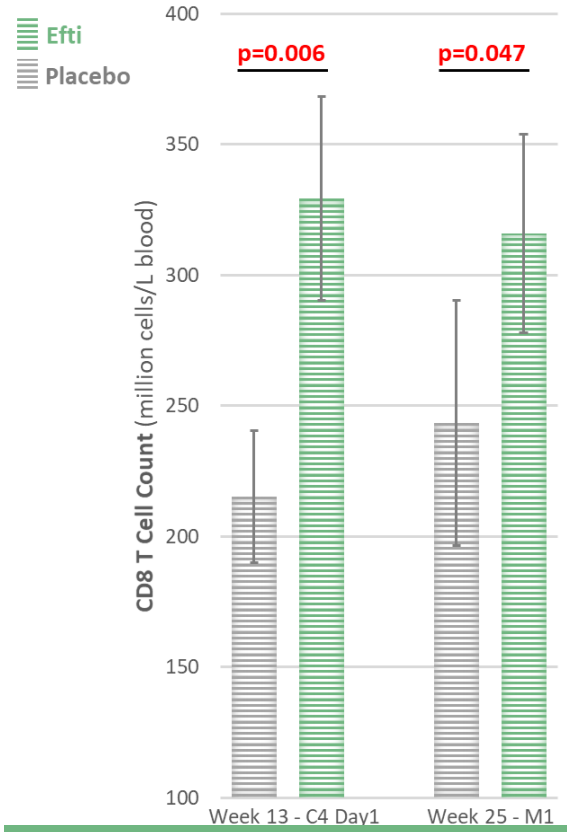
* used for reimbursement in Europe: https://www.esmo.org/guidelines/esmo-mcbs/scale-evaluation-forms-v1.0-v1.1

AIPAC Phase IIb Clinical Results

Immune Monitoring on Fresh Blood (up to 70 patients)

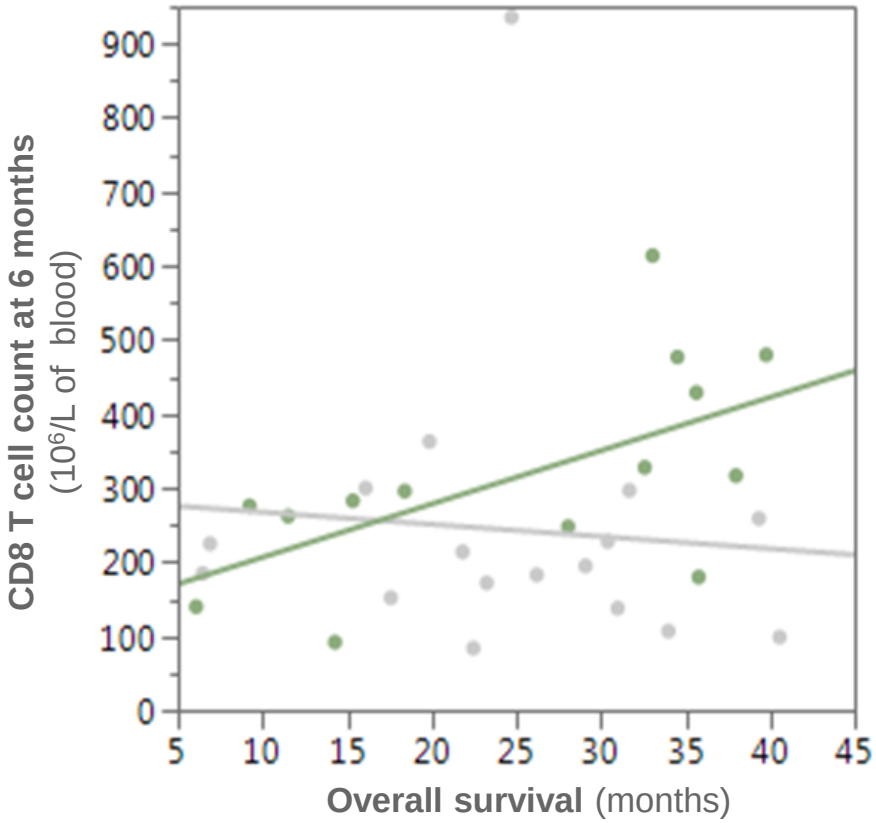
Cytotoxic CD8⁺ T Cell count over time

(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

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

immutep
LAG-3 IMMUNOTHERAPY

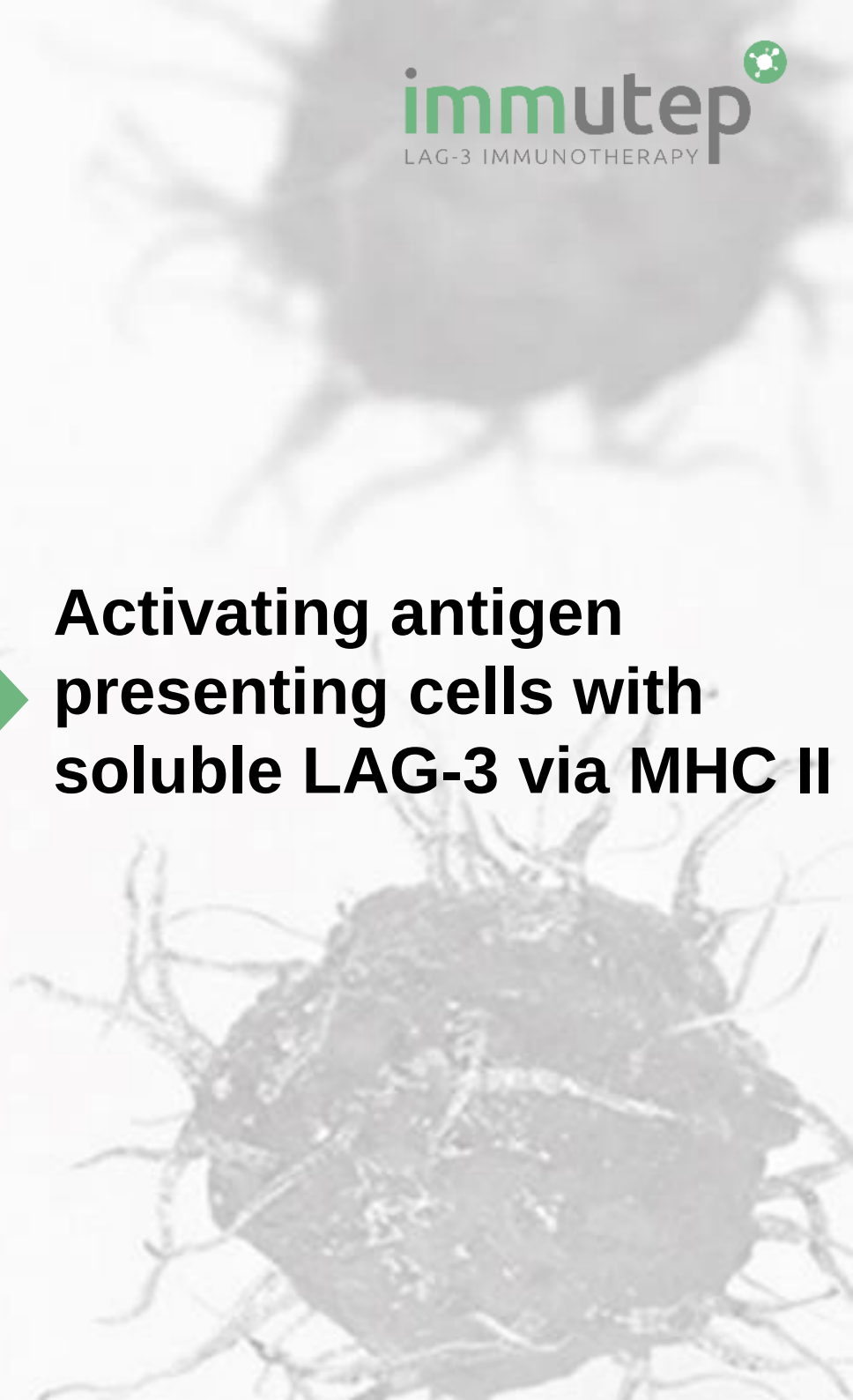
Efti + anti-PD-1 Combinations

immutep
LAG-3 IMMUNOTHERAPY

Approximately 70-80% of patients do not respond to immune check point therapy, e.g.: anti-PD-1 monotherapy. [1]

How do we improve the immune response?

Activating antigen presenting cells with soluble LAG-3 via MHC II



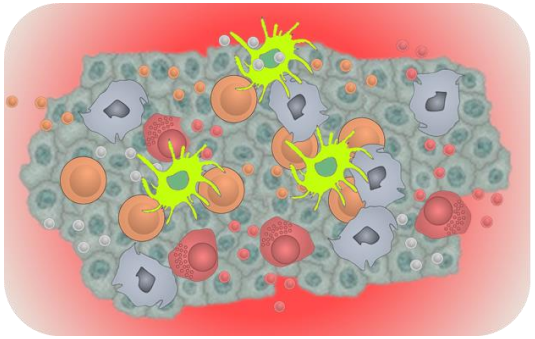
Notes:

[1] See for example Callahan at al Front. Oncol. (2015) 4:385 and Gauci at al Clin Cancer Res. (2019) Feb 1;25(3):946-956.

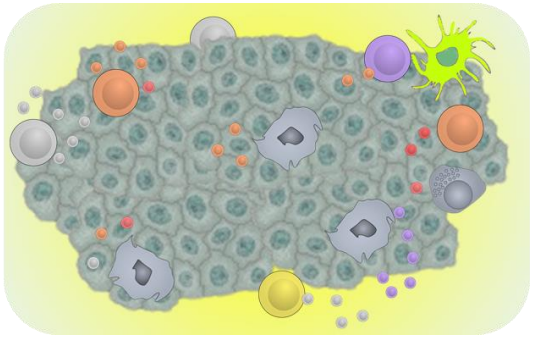
APC activator – ICI combinations

Three types of patients

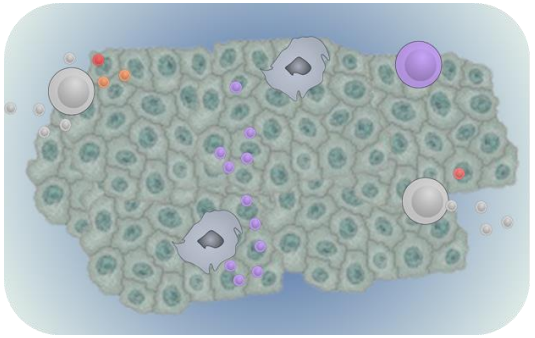
HOT



TEPID



COLD



IFNγ

Inflamed responder

- Considerable immune cell infiltration e.g.: CD8+ Tc; Macrophages
- **High** levels of IFN-γ produced → inducing high PD-L1 expression on tumor cells

Likely responds to Immune Checkpoint Inhibition e.g.: anti-PD-1

Inflamed non-responder

- Some infiltrates in the tumor margins but no response.
- **Medium** levels of IFN-γ produced → inducing low PD-L1 expression on tumor cells

Due to low level of TH1 (IFN-γ) driven T-cell activation → **unlikely to respond to ICI treatment**

Non-inflamed non-responder

- Minimal to no immune cell infiltration on the tumor margins.
- **Low** levels of IFN-γ produced → no induction of PD-L1 expression on tumor cells

Due to low numbers of infiltrating T-cells → **unlikely to respond to ICI treatment**

Key Clinical Trials

TACTI-002 (Phase II) design & status

TACTI-002: Two ACTive Immunotherapeutics in NSCLC and HNSCC

SCREENING

UNSELECTED FOR PD-L1

PART A:
1ST LINE MET. NSCLC

PART B:
2ND LINE MET. NSCLC, REFRACTORY TO PD-1/PD-L1 TARGETING THERAPY

PART C:
2ND LINE MET. HNSCC AFTER PLATINUM THERAPY

→ **COMBINED IMMUNOTHERAPY**
PEMBROLIZUMAB + IMP321 FOR 12 MONTHS + 12 MONTHS PEMBROLIZUMAB MONO

→ **ORR,** PFS, OS, PK, biomarker, safety and tolerability

In collaboration with

MERCK
INVENTING FOR LIFE

Treatment	30 mg efti (IMP321) s.c. 200 mg pembrolizumab (Keytruda®) i.v.

Next:
New data at ASCO in June 2021

Status Report

- ✓ Fully approved in all countries
- ✓ Up to 183 patients in three indications
  - ✓ Part A (N=36) completed; extension (N=74 recruiting)
  - ✓ Part C (N=39) completed
  - ✓ Part B (N=36); stage 2 recruitment ongoing

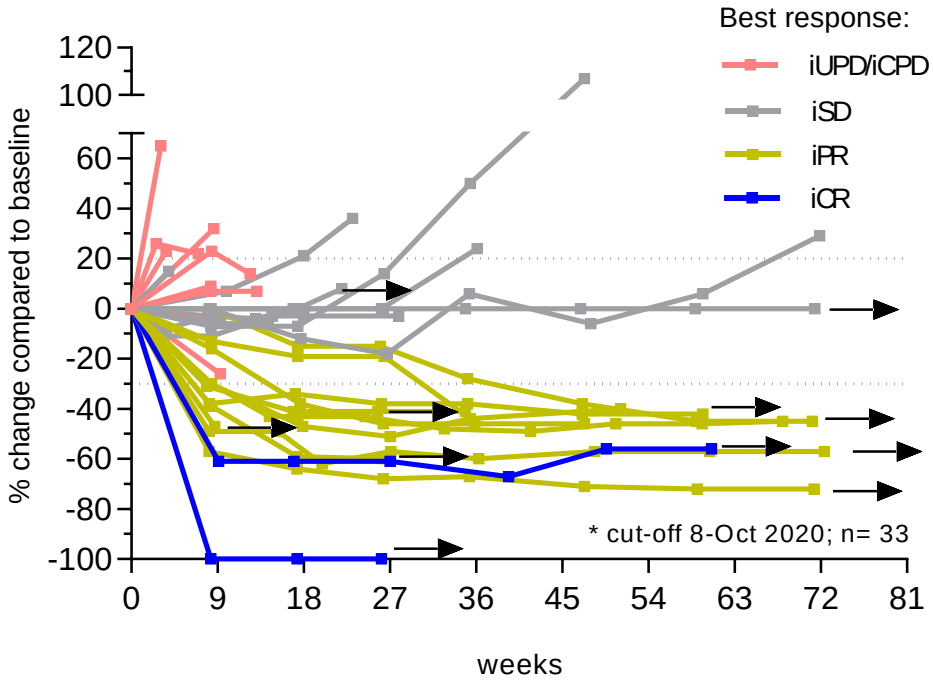
Sites in Europe / US / Australia

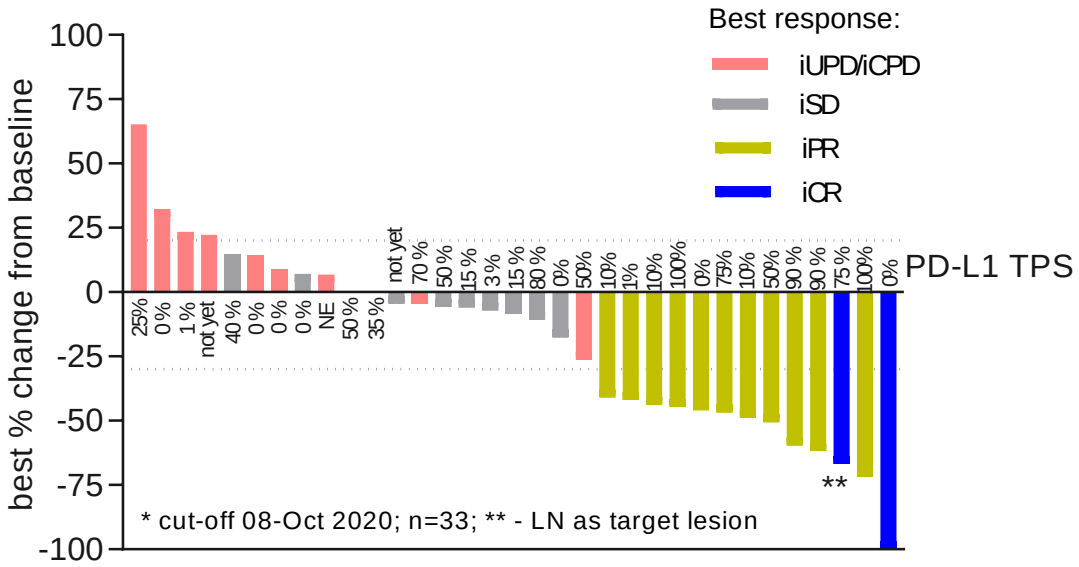
Notes:
ORR – overall response rate, DCR – disease control rate, PFS – progression free survival, OS – overall survival, QoL – Quality of life

TACTI-002 Results(1)

1st line NSCLC (Part A)

Presented at





- 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)

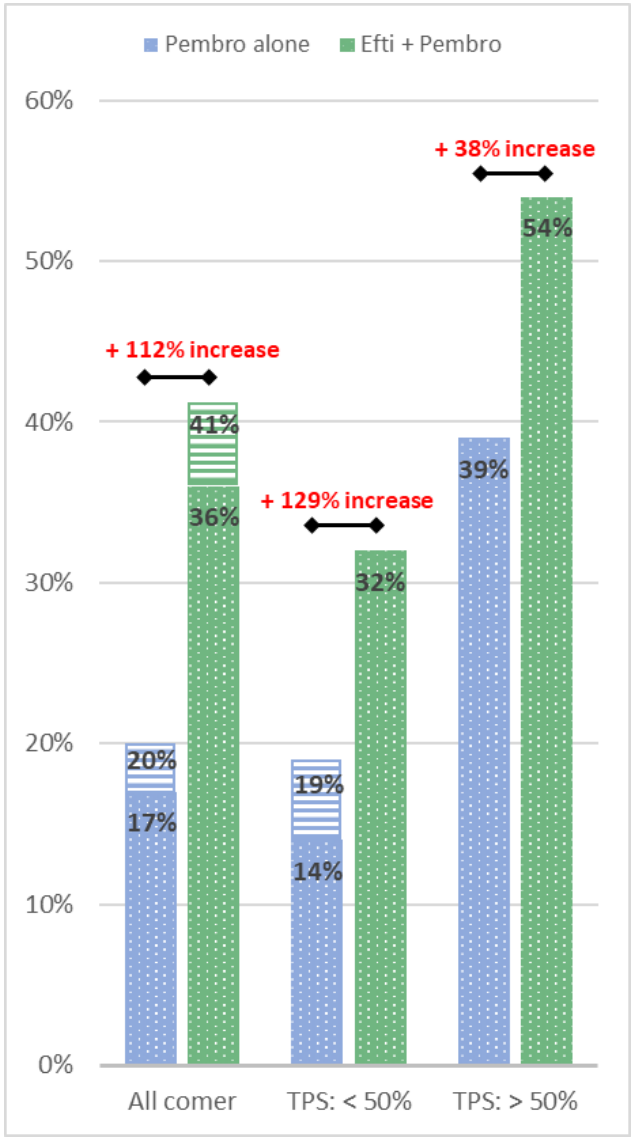
1st line NSCLC (Part A) - Benchmarking

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

* - only patients evaluated where PD-L1 results available (32 out of 36); ** 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 addresses 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.

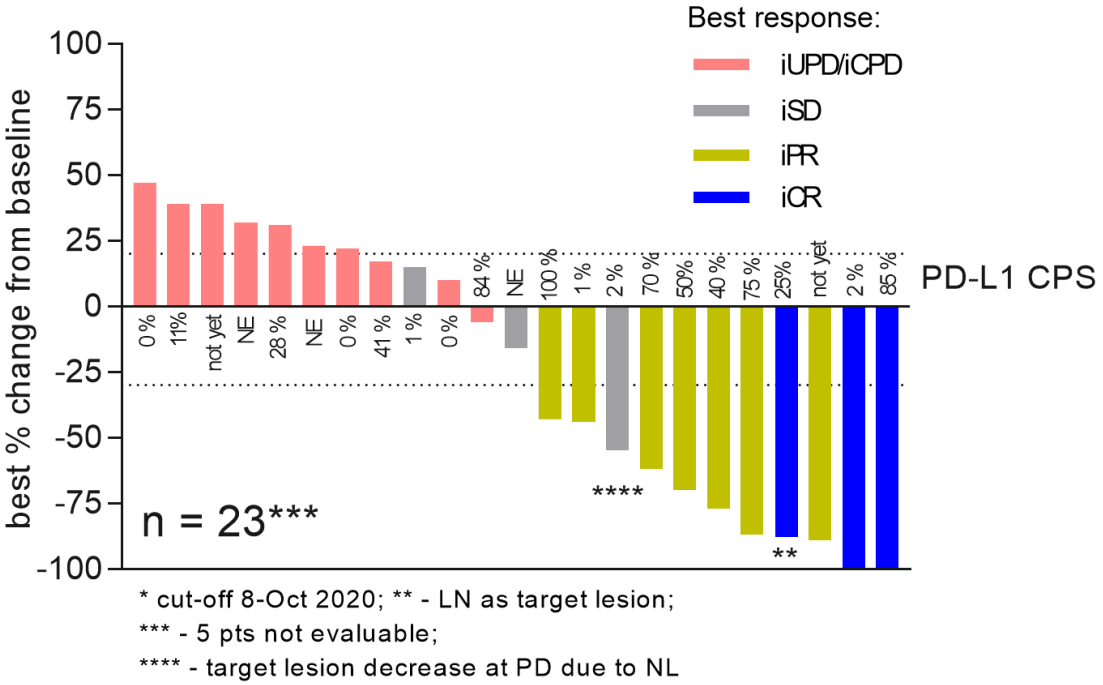
Notes:

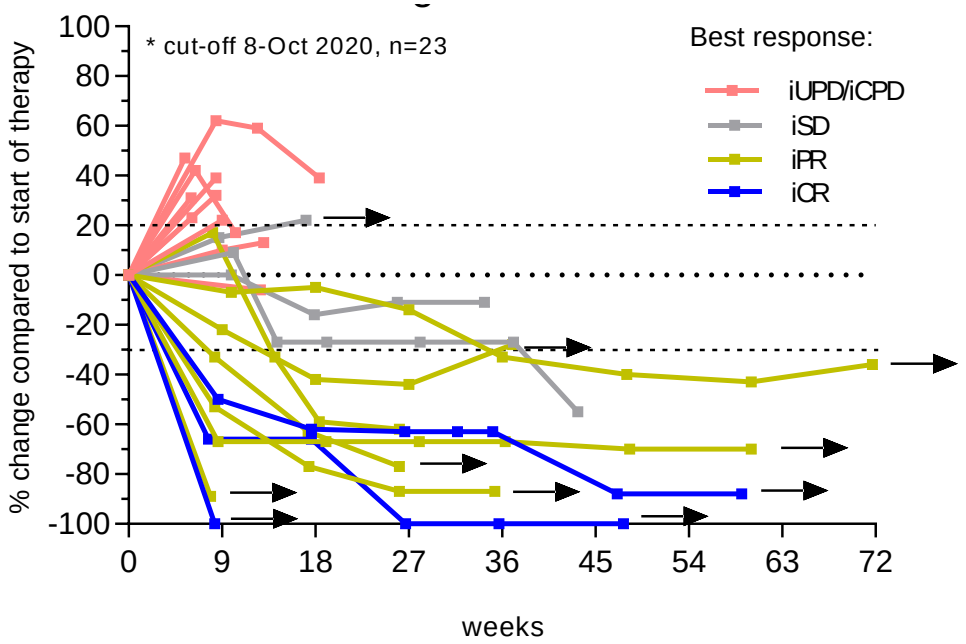
(1) Preliminary data, cut-off 08 Oct 2020 for TACTI-002
(2) KEYNOTE-042: TSK Mok et al, The Lancet 2019, http://dx.doi.org/10.1016/S0140-6736(18)32409-7
(3) KEYNOTE-001: NB Leighl et al, The Lancet 2019, http://dx.doi.org/10.1016/S2213-2600(18)30500-9
(4) EJ Aguilar et al; Annals of Oncology 30: 1653–1659,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

TACTI-002 Results[(1)]

2nd line HNSCC (Part C)

Presented at SITC 2020 Reimagined NOVEMBER 9–14





- All patients (except one) 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)

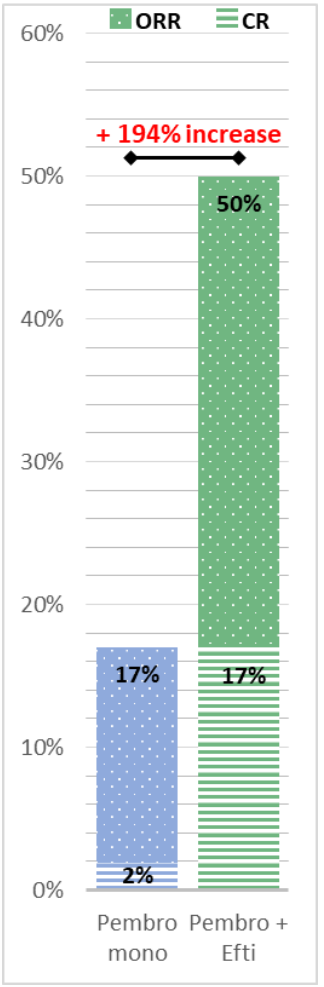
2nd line HNSCC (Part C) – Benchmarking

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

* - only patients evaluated where PD-L1 results available (21 out of 28); ** 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:

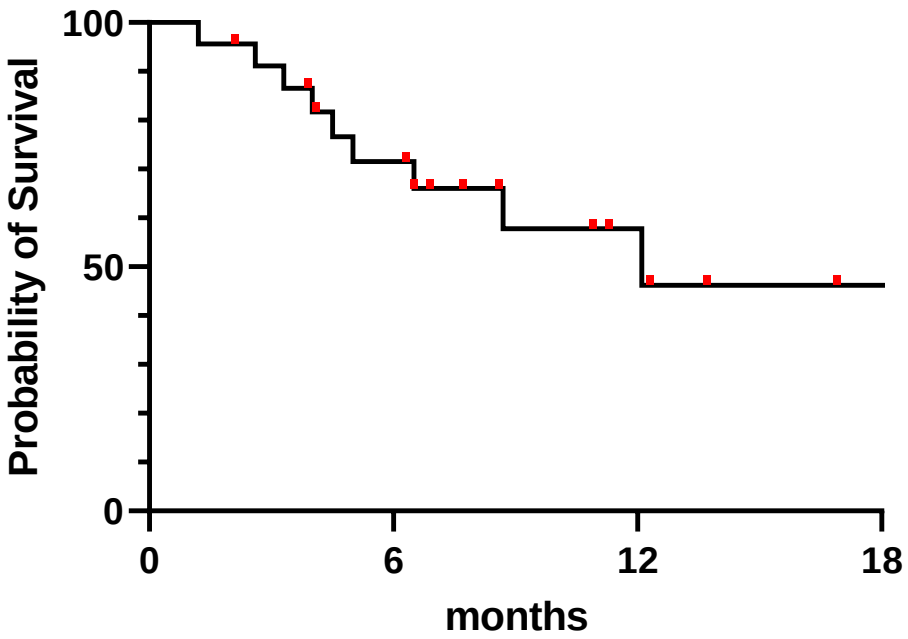
(1) Preliminary data, cut-off 08 Oct 2020
(2) Keynote-040 results: available from https://www.esmo.org/newsroom/press-office/KEYNOTE-040-Evaluates-Pembrolizumab-in-Head-and-Neck-Cancer
(3) RL Ferris et al.: Nivolumab for Recurrent Squamous-Cell Carcinoma of the Head and Neck. N Engl J Med 2016;375:1856-67.
(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

TACTI-002 Results(1)

2nd line NSCLC (Part B) - Benchmarking

Presented at SITC 2020 Reimagined NOVEMBER 9–14

OS - Stage 1 - Part B - NSCLC



- 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 to be presented at ASCO in June 2021

Phase I
Open label trial

12
Patients: 2 cohorts of 6 patients each

6 months
Combination treatment, then 6 months avelumab monotherapy

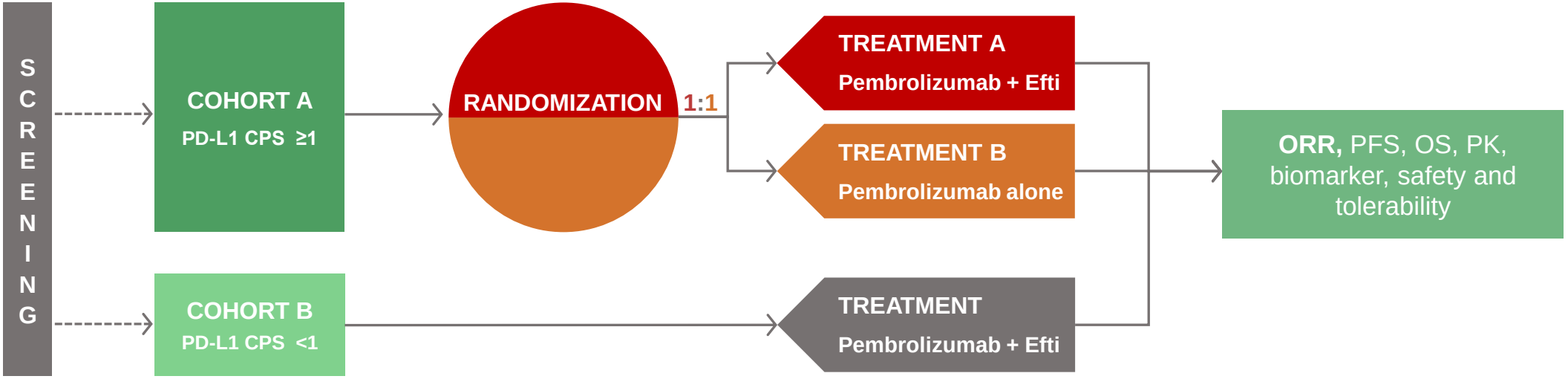
One site
Germany

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

TACTI-003 Trial in 1st line HNSCC

Current Design + Status



Design:

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

Status:

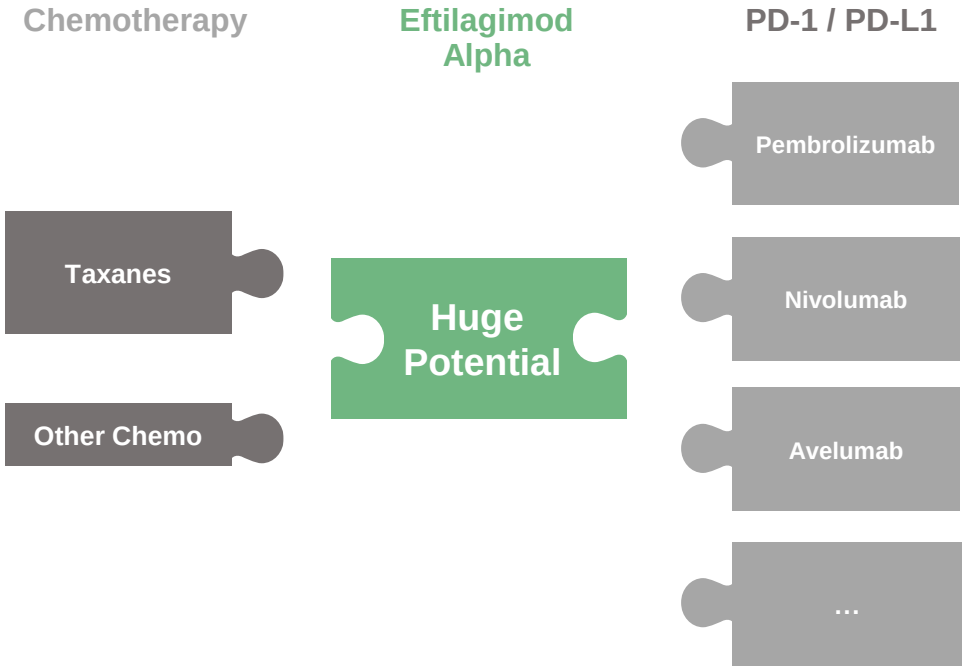
- Advanced planning & study start up expected in mid 2021
- Fast Track designation granted by FDA in April 2021

In collaboration with

MERCK
INVENTING FOR LIFE

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

Other Efti Partnerships

immutep
LAG-3 IMMUNOTHERAPY

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
- 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

immutep
LAG-3 IMMUNOTHERAPY

Out-Licensed Immunotherapy Pipeline

Ieramilimab (LAG525) for Cancer

- Novartis holds an exclusive WW licence to develop and commercialise Ieramilimab (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 Ieramilimab in multiple cancer indications for over 1,000 patients(2)

- **Ieramilimab 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

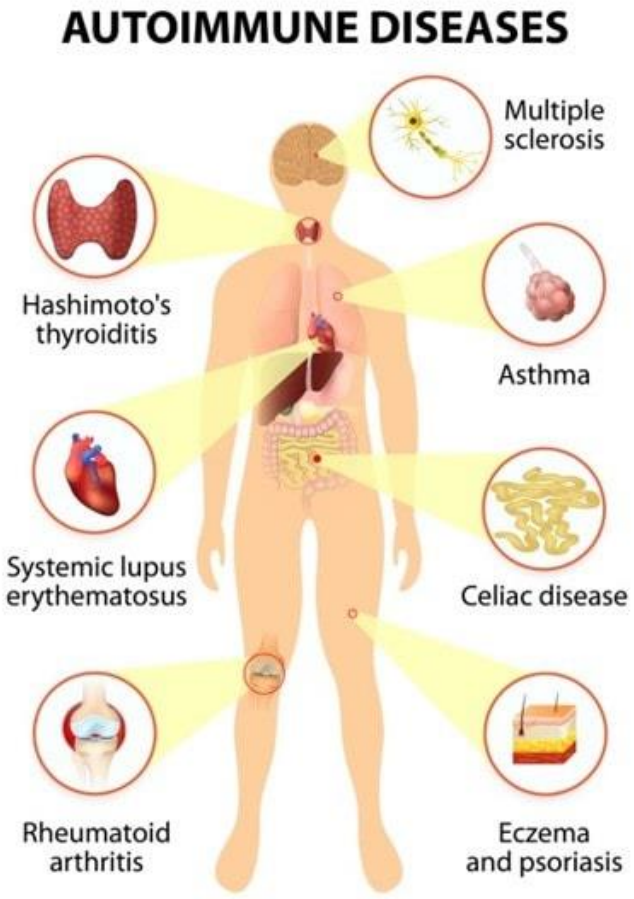
GSK's investigational product, GSK2831781, which is derived from IMP731 antibody, aims to kill the few activated LAG-3+ T cells that are auto-reactive in autoimmune disease leading to long term disease control without generalized immune suppression

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=

immutep
LAG-3 IMMUNOTHERAPY

IMP761
- Autoimmune Diseases -

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

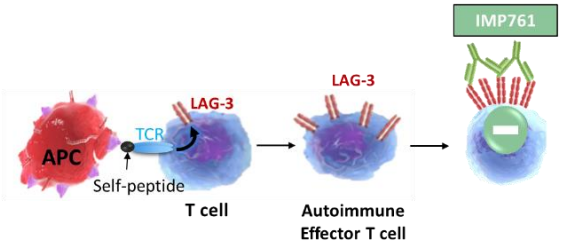


THE PRESENT: FIGHTING THE SYMPTOMS

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

immutep
LAG-3 IMMUNOTHERAPY

Other Partnerships

Collaboration with LabCorp

- Licence and Collaboration Agreement for immuno-oncology products or services (entered in Oct 2020)
- 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

immutep
LAG-3 IMMUNOTHERAPY

Corporate Snapshot & Outlook

Corporate Snapshot

Ticker symbols	IMM (ASX) IMMP (NASDAQ)
Securities on issue(1) (as at 10 May 2021)	672.4 million ordinary shares
Cash & Cash equivalents (as at 31 March 2021)	~A$51.7 million (US$39.3 million)
Market Cap(2) (as at 10 May 2021)	A$302.6 million (US$237.7 million)

Notes:

(1) Currently ~36% 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.

NB: US equivalent of amounts above are based on foreign exchange rate for AUD/USD of 0.7856 for market capitalization, and the US cash & cash equivalents amount was calculated using FX rate of 0.7602 as at 31 March 2021.

2020 & 2021 News Flow*

immutep
LAG-3 IMMUNOTHERAPY

2020

- ✓ **AIPAC** – PFS, ORR and OS 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** & final data from **INSIGHT-004** at ASCO
- ❑ Recruitment & first data from **TACTI-002** Part A extension
- ❑ Start & ongoing recruitment of **new trial in 1st line HNSCC** (TACTI-003)
- ❑ 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

- ✓ Validation of LAG-3/MHC-II interaction through readout of BMS's Phase III data for relatlimab + nivo combination

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 LAG-3 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 collaborations with e.g. Merck (MSD), Pfizer / Merck KGaA, Novartis and GSK

immutep

LAG-3 IMMUNOTHERAPY

Thank You