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LAG-3 IMMUNOTHERAPY

Corporate Presentation
January 2018

(ASX: IMM, NASDAQ: IMMP)

Notice: Forward Looking Statements

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Company Highlights

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Deep expertise and understanding of the LAG-3 immune control mechanism

Four LAG-3 related product candidates, three of which are in six ongoing clinical trials

The leader in developing LAG-3 therapeutics for IO and autoimmune diseases

Multiple industry partnerships including GSK and Novartis

Expecting data rich and business development news flow in 2018-2019

Mission Statement

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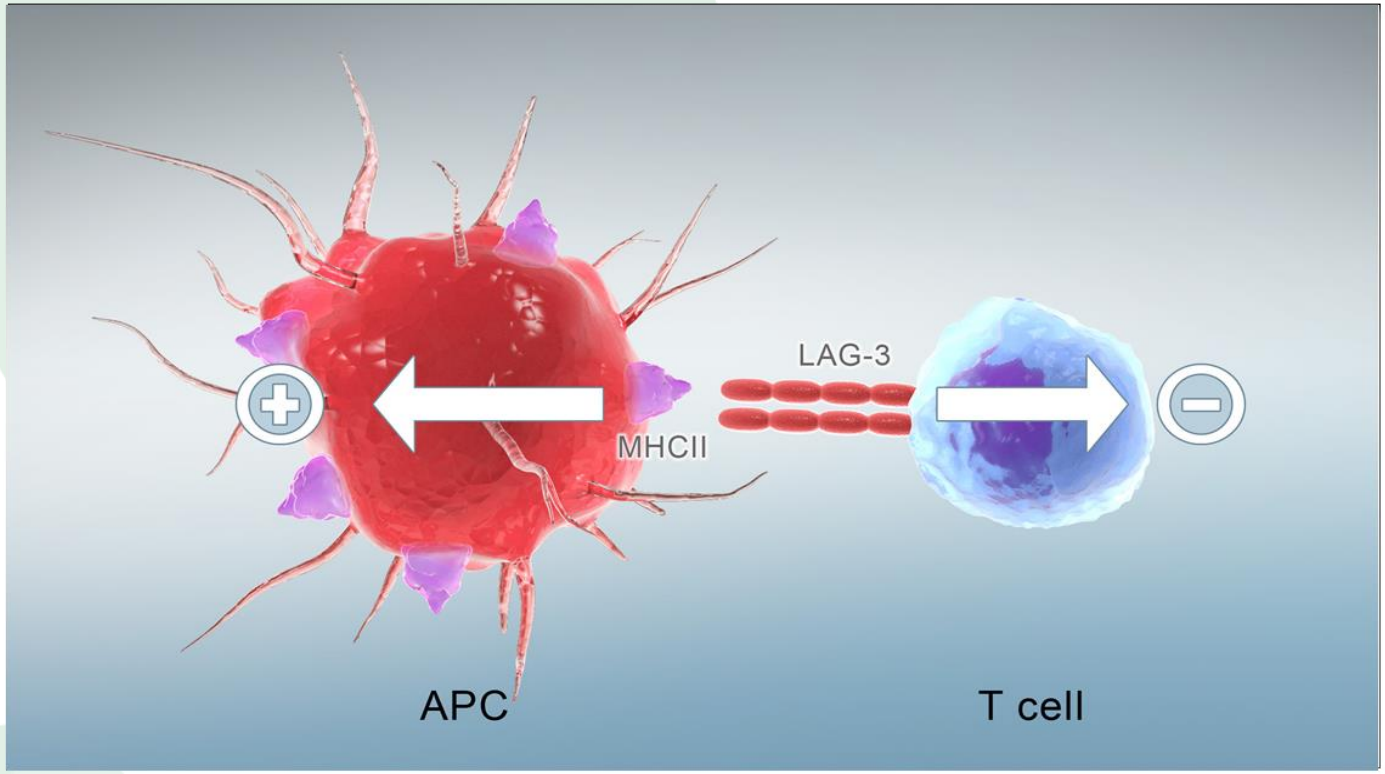
Through scientific vision and clinical acumen, discover and develop novel immunotherapies and to partner with leading organizations to maximize the full therapeutic potential of these cutting-edge technologies

LAG-3 as a Therapeutic Target

- LAG-3 is widely expressed on tumor infiltrating lymphocytes (TILs) and cytotoxic T cells

  → Prime target for an immune checkpoint blocker
- Functionally similar to CTLA-4 (targeted by Yervoy®) and PD-1 (targeted by Keytruda®)
- There are currently no approved therapeutics targeting LAG-3



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

→ **Negative regulation** of $LAG\text{-}3^+$ T cells

Targeting LAG-3 May Lead to Multiple Therapeutics in Numerous Indications

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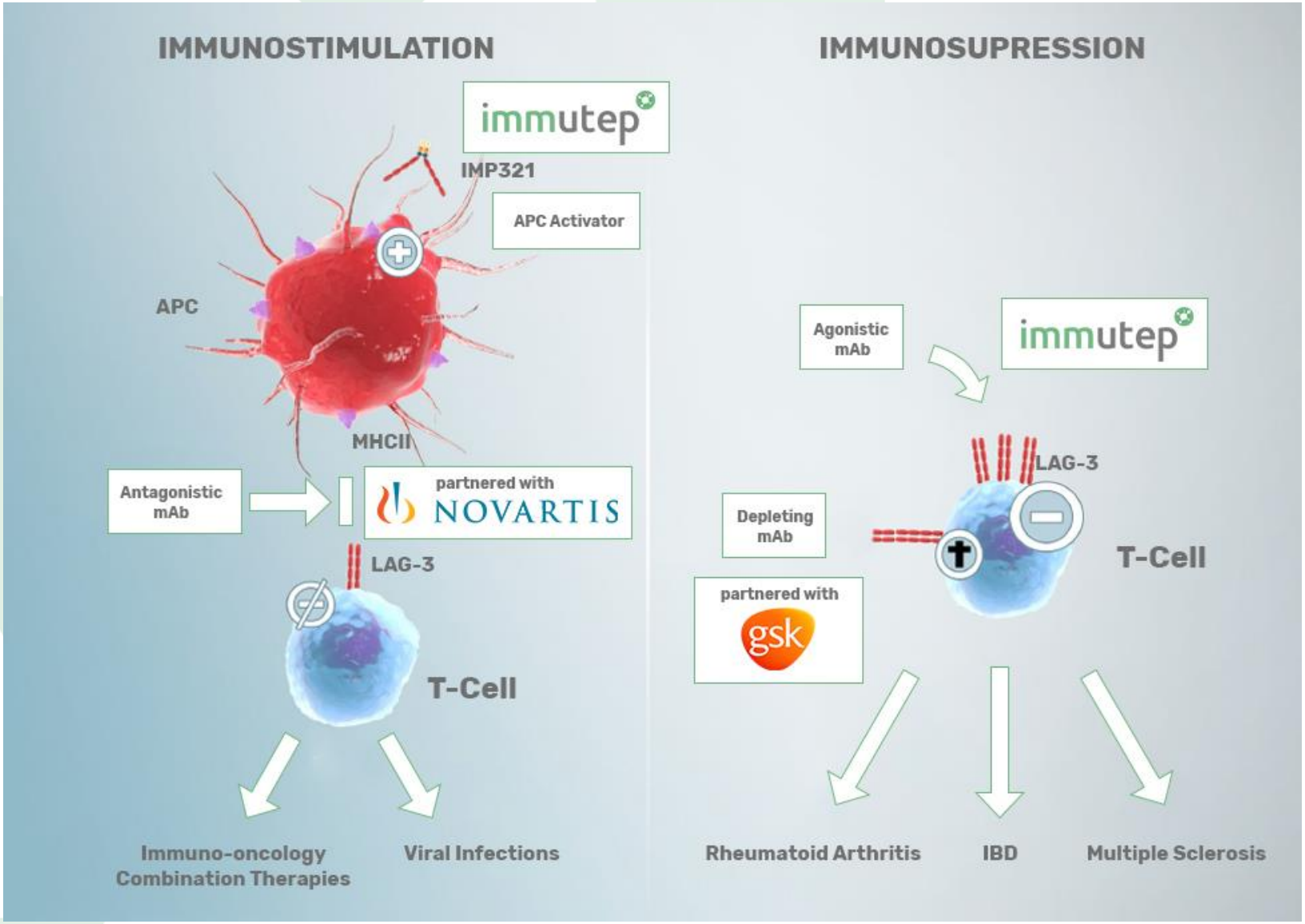

Oncology and Autoimmune Pipeline

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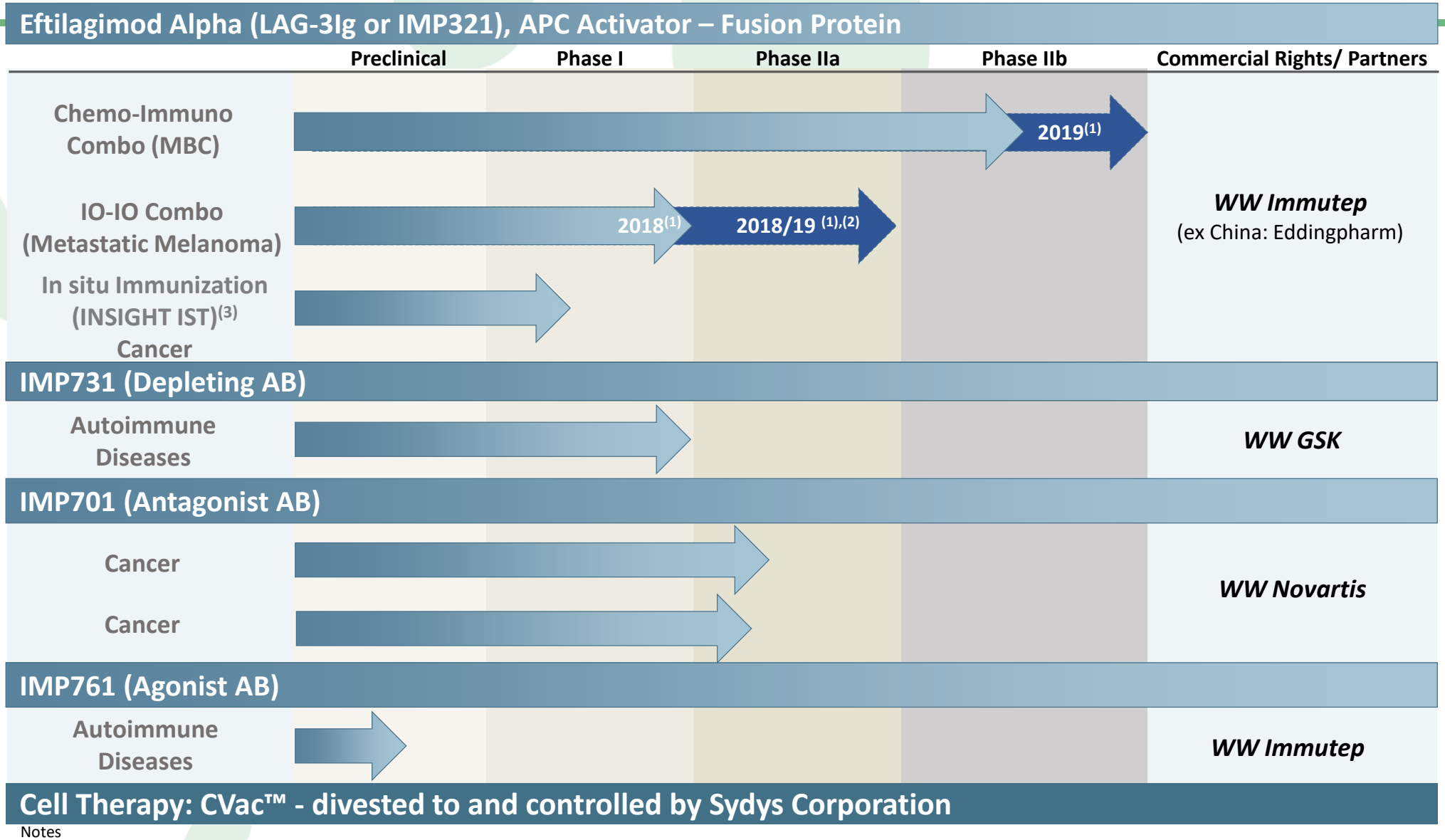

Notes

(1) Expected timing of data readouts and actual results and timing may differ
(2) Additional IO-IO studies may include tumor types other than melanoma
(3) INSIGHT Investigator Initiated Trial (IST) is controlled by lead investigator and therefore Immutep has no control over this clinical trial

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Lead Program
Eftilagimod Alpha (IMP321)

IO Revolution & Landscape

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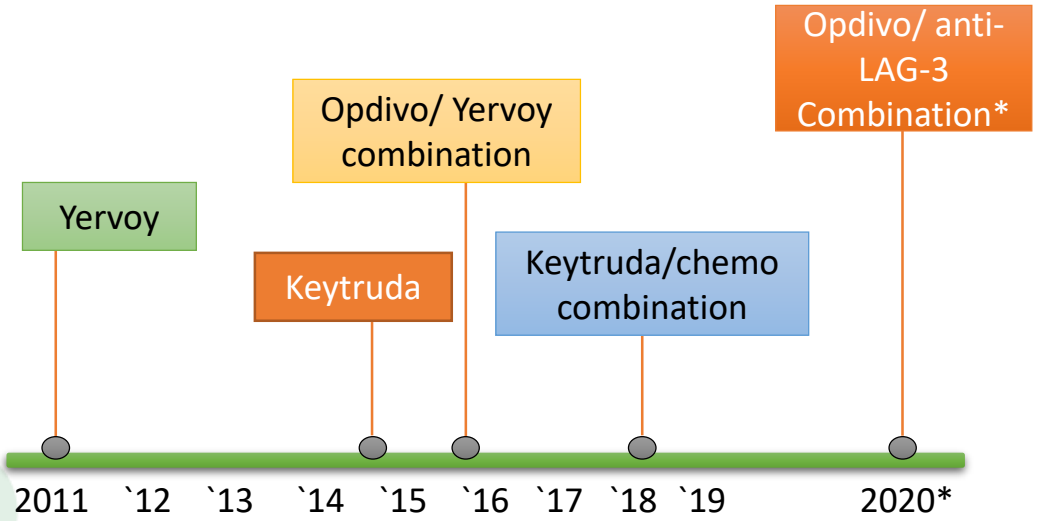
Current Immuno-Oncology Therapies

- CTLA-4, PD-1 and PD-L1 antagonists approved for many indications
- Anti-PD-1 as a therapy backbone
- But only 15 - 40% of solid tumors respond to monotherapy
- Combo Opdivo + Yervoy relatively toxic
- May 2017 approval of Keytruda/ chemo combination in lung cancer (NSCLC)

Evolution of Immuno-Oncology Therapies



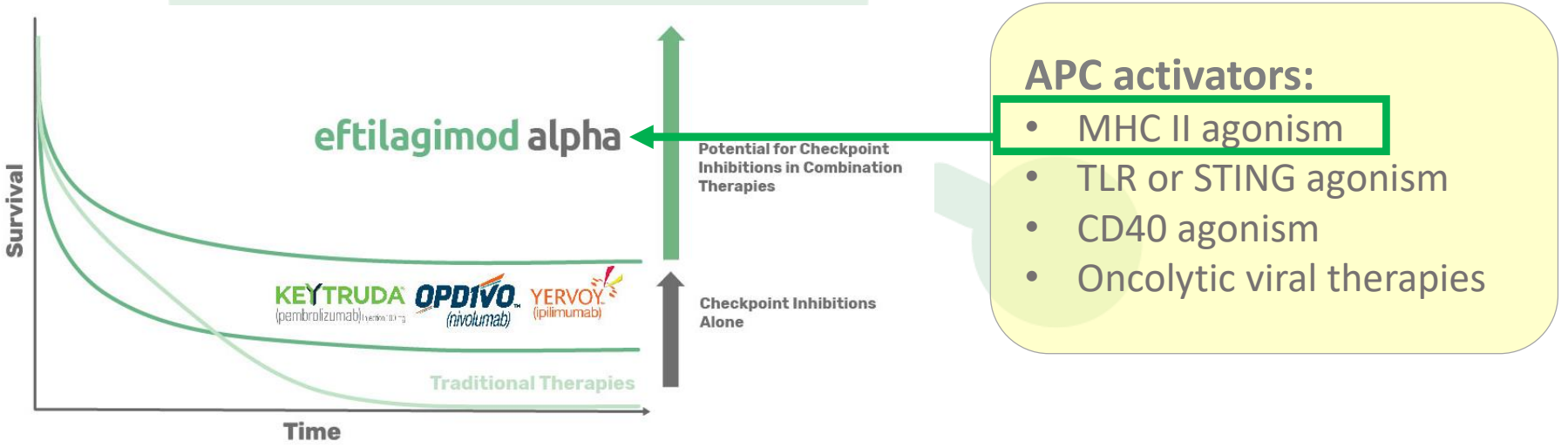
*Expected timing, actual results may differ (BMS ASCO 2017 Investor Presentation)

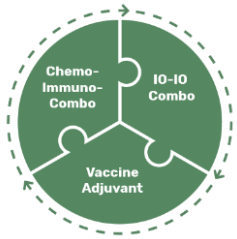
IO Therapy Oncology Response Rates

Approximately 70-80% of patients do no respond to anti-PD1 monotherapy.
How can we enable more efficacious T-cell responses?

- Immunogenic cell death to liberate/uncover tumor antigens
- Cross-presentation of those antigens
- Recruitment of T cells into the tumor microenvironment
- Reversing the pathways driving a repressive tumor environment

This could be achieved through the right APC activation





Opportunity for Eftilagimod Alpha

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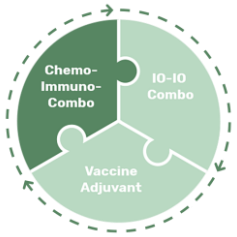
Eftilagimod has the potential to be an ideal combination candidate in oncology therapy that could improve the prognosis for patients

Eftilagimod Key Characteristics (based on current data):

- Excellent safety profile and encouraging efficacy data thus far
- Potential for use in various combination settings (e.g. IO, chemo, vaccines or in situ immunization)
- Antigen presenting cell activation mechanism of action, that results in t-cell cascade and thereby enhances the immune system response
- Potentially favorable (low) cost of goods based on current flat dosing regimen and manufacturing process

Opportunity for Eftilagimod:

- ✓ Potential synergistic effect with current IO, cancer vaccines, or chemo therapies
- ✓ Unique MoA and potential therapeutic synergies
- ✓ European Phase IIb trial of Efti + chemo in breast cancer
- ✓ Dose escalation Phase I of Efti + Keytruda (TACTI-mel) in melanoma ongoing → extension to other indications possible



Eftilagimod Alpha in MBC (AIPAC) (chemo-immunotherapy)

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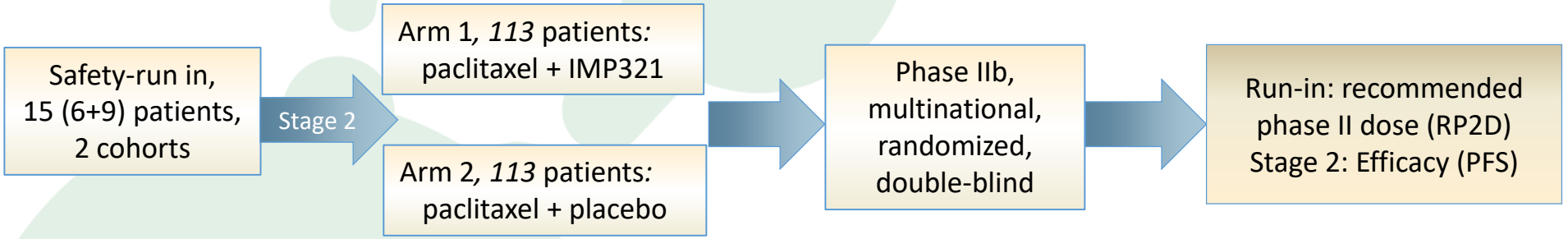
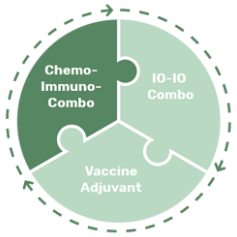
AIPAC trial (Phase IIb): Active Immunotherapy PAClitaxel, MBC patients, different EU countries



Primary Objective	Run-In: Recommended Phase II dose (RP2D) Stage 2: Efficacy (PFS) of paclitaxel + IMP321 vs. paclitaxel + placebo
Other Objectives	Anti-tumor activity, safety and tolerability, pharmacokinetic and immunogenic properties, quality of life of IMP321 plus paclitaxel compared to placebo
Patient Population	Advanced MBC indicated to receive 1st line weekly paclitaxel
Treatment	Run-in: IMP321 (6 or 30 mg) + Paclitaxel Arm 1: Paclitaxel + IMP321 (30 mg) Arm 2: Paclitaxel + Placebo
Countries	NL, BE, PL, DE, HU, UK, FR → overall 30+ sites

Status report (Oct 2017)

- ✓ Safety run-in completed successfully
- ✓ Randomized phase started early 2017 with the RP2D (30 mg)
- ✓ Interim-data of safety run-in presented at ASCO 2017
- ✓ To-date, efficacy and safety data in-line with historical control group/ prior clinical trials (Brignone et al Journal Translational Medicine 2010, 8:71)
- ✓ Regulatory approval in 7 EU countries
- Primary read out expected in H1 2019



Eftilagimod Alpha Prelim. Efficacy
Metastatic Breast Cancer

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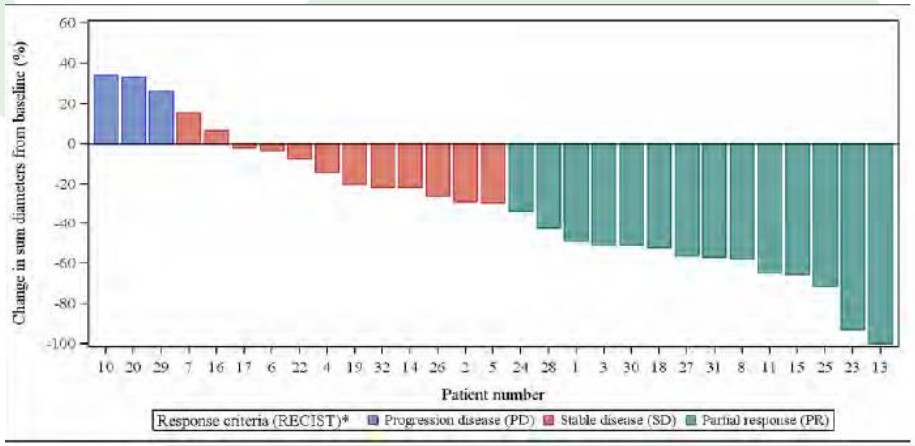
Observed response rates are substantially better than the 22-33 % response rates seen in historical control groups with paclitaxel monotherapy

Phase I (n=30)



- **ORR* of 47 % and DCR** of 83 %**
- Responders had further tumor shrinkage between months 3 and 6

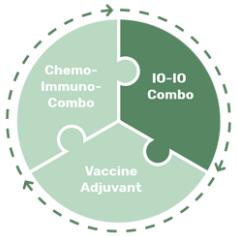
AIPAC – Safety Run Phase (n=15)

Response parameter	Paclitaxel + IMP321 (n = 15)
Complete Response (CR)	0/15 (0 %)
Partial Response (PR)	7/15 (47 %)
Stable Disease (SD)	6/15 (40 %)
Progressive Disease (PD)	2/15 (13 %)
Overall Response Rate (ORR)	7/15 (47 %)
Disease Control Rate (DCR)	13/15 (87 %)

- **ORR of 47 % and DCR of 87 %**
- Two of the responses occurred relatively late (after ~6 months)

*Overall Response Rate **Disease Control Rate

Preliminary data, status September 2017, best response acc. To RECIST 1.1



Eftilagimod Alpha in Melanoma
TACTI-mel (IO combination)

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TACTI-mel trial: Two ACTive Immunotherapeutics in melanoma

18 patients, 3 cohorts of 6 patients → IMP321 + anti-PD-1 (Keytruda®) → Phase I, multicenter, open label, dose escalation → Recommended Phase II dose Safety and tolerability

Primary Objective	Recommended dose for phase II (RP2D) with IMP321 + pembrolizumab Safety + tolerability
Other Objectives	PK and PD of IMP321, response rate, time to next treatment, PFS
Patient Population	Unresectable or metastatic melanoma with asymptomatic or suboptimal response after 3 cycles of pembrolizumab
Treatment	3 cohorts: 1/6/30 mg IMP321; s.c. q2w + pembrolizumab; starting with the 5th cycle of pembrolizumab

Status report

- ✓ First dose escalation (1mg → 6mg) successfully confirmed by DSMB in Dec 2016
- ✓ Enrolment of cohort 2 (6 mg) completed in Mar 2017
- ✓ Interim data presented at SITC 2017
- ✓ Full recruitment of 3rd cohort completed in December 2017
- Data from all 3 cohorts expected mid 2018

6 sites in Australia

Eftilagimod Alpha TACTI-mel
Patient 02-01 (1mg): Preliminary Results

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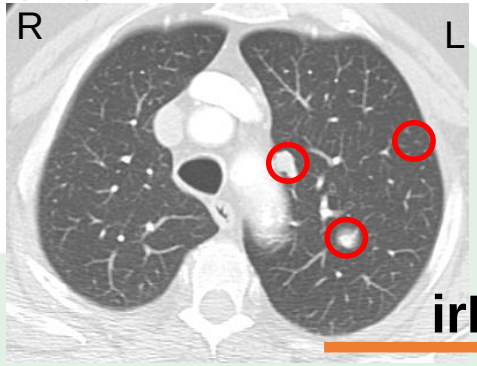
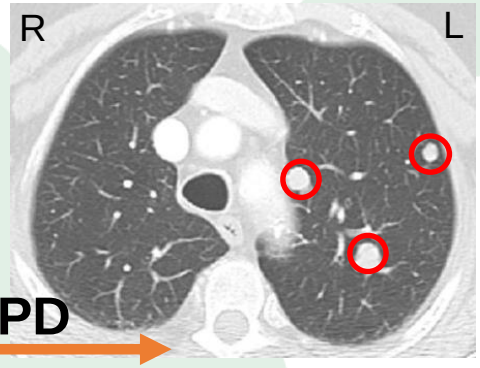
Efficacy: metastatic melanoma

pre-pembro

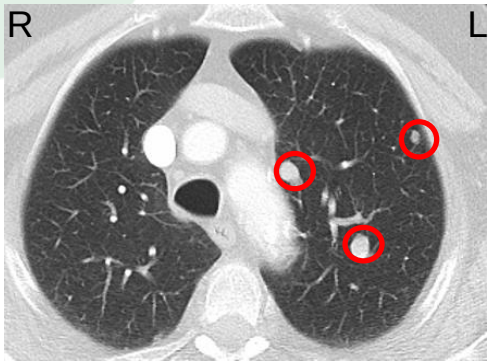


week 9 (pembro)

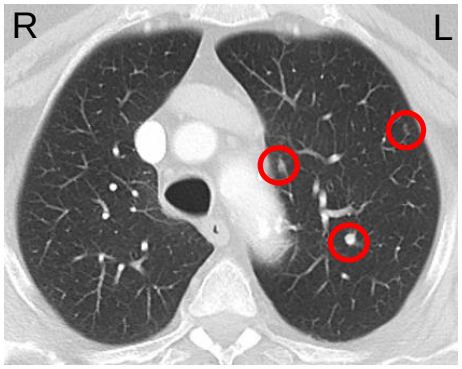


irPD

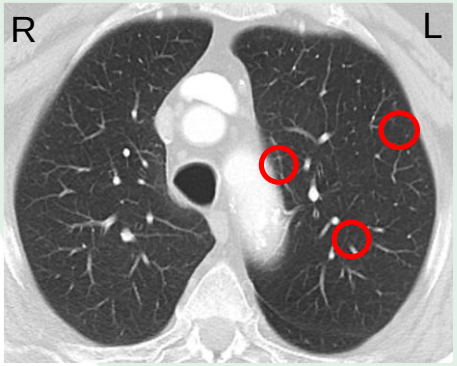
week 25 (combo)



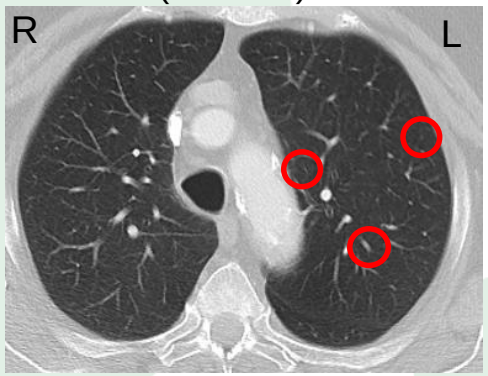
week 37 (combo)

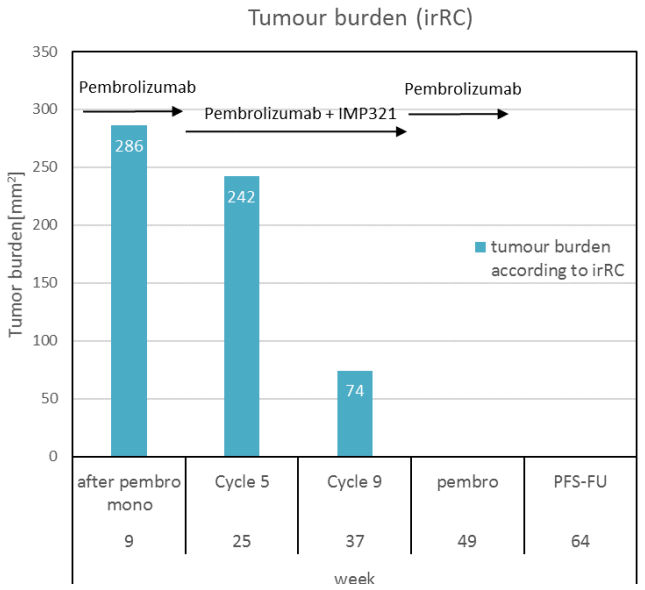


week 49 (Pembro mono)



week 64 (PFS-FU)





All lesions disappeared → CR (confirmed)
patient without treatment but disease free

Preliminary data, status 06th November, 2017

Eftilagimod Alpha TACTI-mel
Preliminary Results

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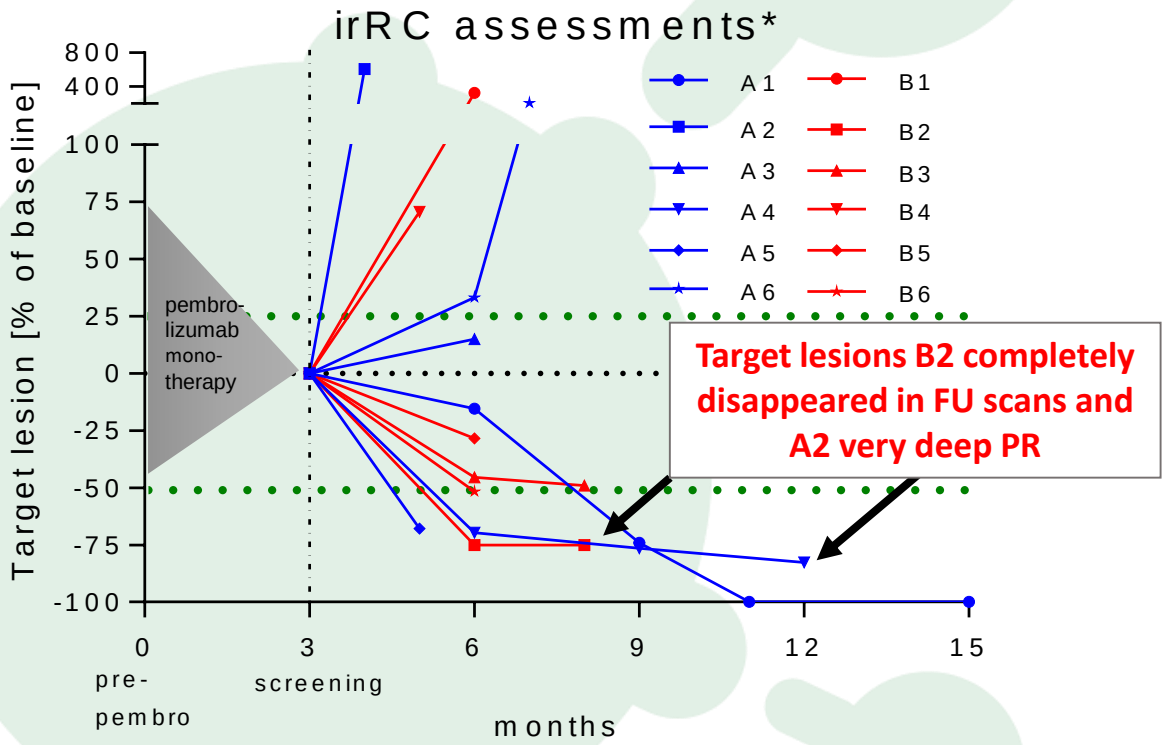
TACTI-mel (P012) – Phase I Trial, 1 mg (cohort 1) + 6mg (cohort 2) Eftilagimod



Response parameter (irRC), n (%)	Total (n=12)
irCR	1 (8)
irPR	3 (25)
irSD	3 (25)
irPD	5 (42)
RR	4 (33)
DCR	7 (58)
Patients with tumor reduction	7 (58)

* - according to study protocol patients receive pembrolizumab monotherapy for 3 cycles. Patients suboptimally responding to or progressing on pembrolizumab are screened and receive combination treatment beginning with cycle 5 (after 3 months) onwards

- **12 (58 %) patients with suboptimal response or progression on pembrolizumab had a tumor reduction during the study**
- **Combination safe and well tolerated to date, no Dose Limiting Toxicity**

Above extracted from SITC Poster presentation based on preliminary data, as at 6th November 2017.

Eftilagimod Alpha INSIGHT Clinical Trial
Investigator Initiated Trial

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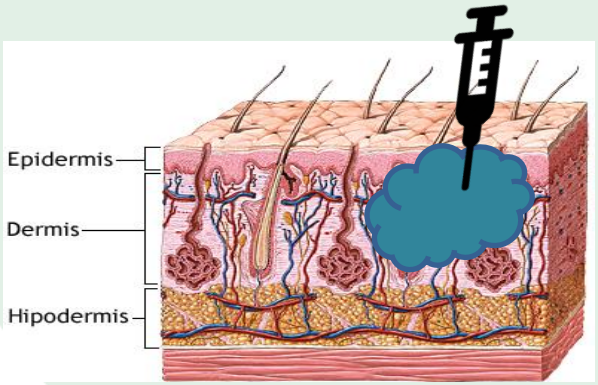
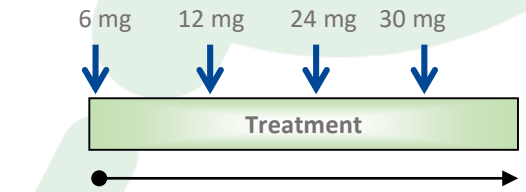
Eftilagimod Alpha in i.t. and i.p. application

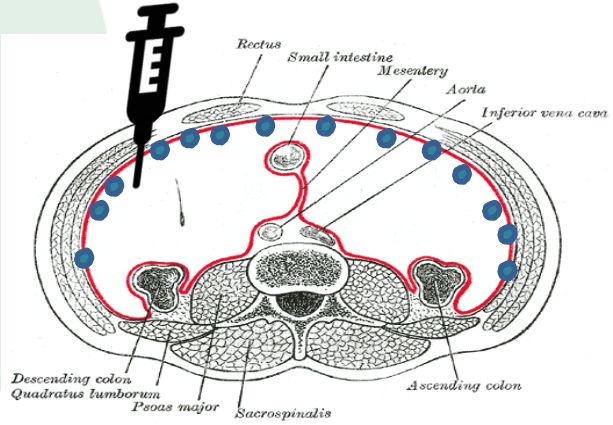
- Prof. Al-Batran, IKF, Frankfurt, Germany
- Population: 18 pts (9 per stratum) with advanced solid tumors w/o standard treatment options
- Objectives: Recommended Phase II dose, PD effects of IMP321
- Design: intrapatient escalation

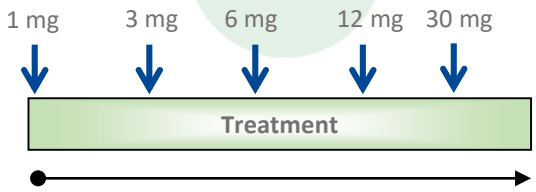
Group A: intratumoral (i.t.)





Group B: intraperitoneal (i.p.)





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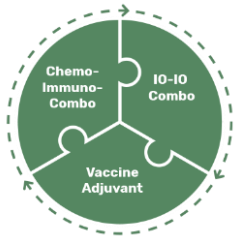
https://cdn.thinglink.me/api/image/578616053681094658/1240/10/scaletowidth

Group A:

- First 2 patients completed escalation w/o DLT,
- 3rd patient ongoing

Group B:

- 1st patient completed escalation w/o DLT



Eftilagimod Alpha – Clinical Overview

Preliminary Exposure and Safety Overview

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Eftilagimod Alpha has been shown to be very well tolerated and safe…

Exposure (cut-off Nov 2017)

- 221 subjects (80 healthy volunteers + 141 cancer patients
- Repeated dose schedule is every two weeks as s.c. injection
- 119/141 patients received ≥ 1 dose ≥ 6 mg (highest dose 30 mg)
- 103/141 patients received IMP321 in combination with chemotherapy

Safety and tolerability in patients (cut-off Nov 2017)

- 53 SAEs in 38 patients (27 %) and 8 SUSARs in 7 patients (5 %)
- No relationship to IMP321 dose level
- Most SAEs/SUSARs in combination with chemotherapy
- Main related adverse events were local erythema and any type of injection site reaction up to NCI-CTC grade 2

- **Eftilagimod has very favorable toxicity profile at dose of up to 30 mg given s.c. every 2 wks**
- **Combination with chemotherapy or PD-1 antagonists is feasible**

Preliminary data, status 15th November 2017

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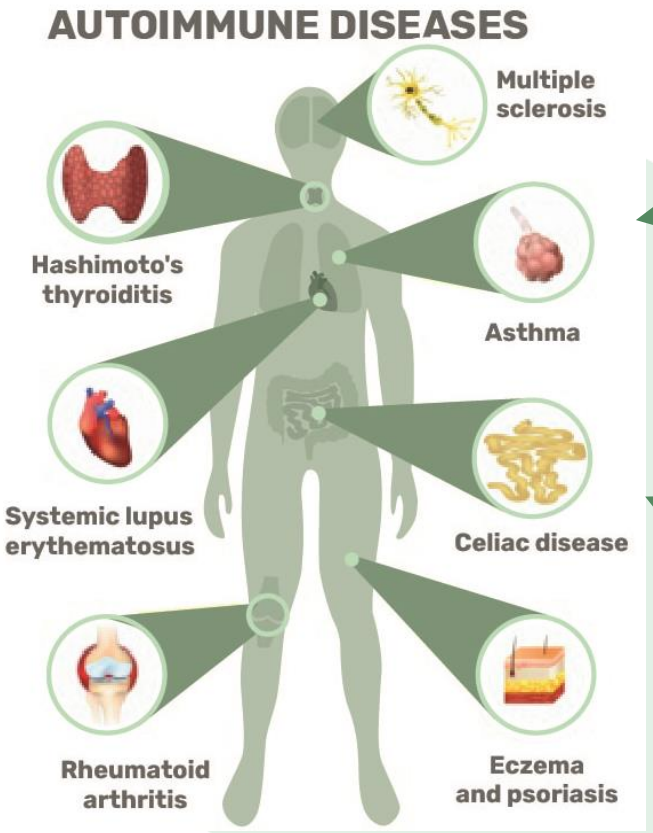
Partnerships

IMP731 for Autoimmune Diseases

- 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

- GSK holds exclusive WW rights
- Jan 2015: Immutep received a single-digit million US$ milestone payment
- Up to €64m in total upfront and potential milestones + royalties
- GSK2831781 in Phase I trials with potential regulatory filing expected within 2021-2025 timeframe (See from slide 108 of GSK investor presentation, 11/03/15)
- Study is active, but no longer recruiting new patients
- Portfolio review at GSK in 2017 -> IMP731 continued despite cancellation of 13 clinical and 20 preclinical programs
- Study completion date: March 2018 with 67 pts. (see http://www.gsk-clinicalstudyregister.com/study/200630#ps)

LAG-3 / Autoimmune Diseases



The Present

Fighting general inflammation:
Corticoids, methotrexate, anti-TNF-α,-IL-6 or -IL-17 mAbs

The Future

Fighting the disease process:
Targeting the few autoimmune LAG-3^{+} T cells with IMP761 (depleting LAG-3 mAb) or IMP731 (agonist LAG-3 mAb)

IMP701 for Cancer

- 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.

- Novartis holds exclusive WW rights
- Aug 2015: Start of Phase I study of IMP701 in combination with PDR001 (anti-PD-1 mAb) in 13 different cancer indications in 240 patients
- 1st Milestone payment received in Aug 2015
- Changed to Phase 1/2 - enlarged enrolment from 240 to 416 patients in June 2016 and enlarged it further in November 2017 to 515 patients
- 2nd Milestone payment received in August 2017
- December 2017: announced new Phase II study of IMP701 in combination with PDR001 in advanced solid and hematologic malignancies in 160 patients
- Estimated study completion date is April 2019

Eftilagimod Alpha Partnerships

- Eddingpharm holds Chinese rights
- Chinese IND for IMP321 submitted in Feb 2017
- EOC, an Eddingpharm Spin-out holding the Chinese rights for IMP321, successfully closed $32 Million round for oncology assets in Nov 2017
- Milestone and royalty bearing partnership for Immutep

- Spin off from NEC, Japan. Est. Dec 2016; aims to develop cancer drugs discovered by artificial intelligence
- Multiple Material Transfer Agreements
- Preclinical and Clinical research ongoing

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Market & Competition

IO Sales by Approach (2019-2024)

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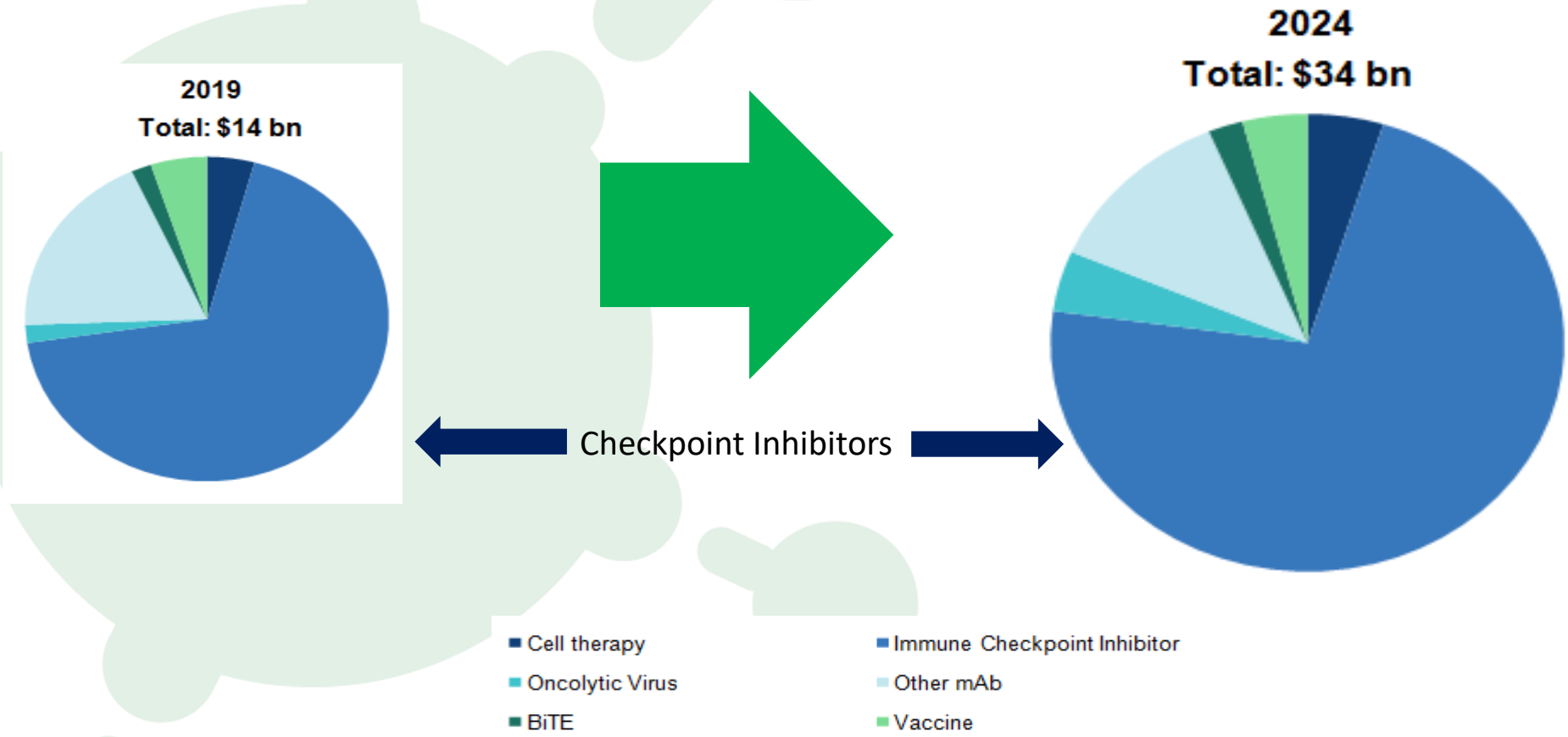
IO Sales are Estimated to Reach $34 billion in 2024 with Checkpoint Inhibitors Accounting for the Largest Market Share



Source: Global Data, Immuno-Oncology Strategic Insight: Multi-Indication and Market Size Analysis (May 2016)

LAG-3 Therapeutic Landscape Overview

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Immutep is the leader in developing LAG-3 modulating therapeutics

Program	Company	Preclinical	Phase I	Phase I/ II	Phase II	Phase IIb	Total Estimated Patients
Eftilagimod Alpha	Immutep[1]		●			●	244
LAG525	Novartis[2], [3]			●	●		675
Relatlimab	BMS		● ● ●	● ● ●	● ● ● ●		3,139
GSK2831781	GSK[2]		●				67
BI 754111	B.I.		●				75
MGD013	Macrogenics		●				131
MK4280	Merck & Co. Inc.		●				240
REGN3767	Regeneron/ Sanofi		●				283
TSR-033	Tesaro		●				260
Eftilagimod Alpha	RKF[4]		●				18
IMP761	Immutep	●					N/A
N/A	Agenus/ Incyte	●					N/A
N/A	F-star Bio/ Merck	●					N/A
N/A	Peregrine Pharma.	●					N/A
N/A	RXi Pharmaceuticals	●					N/A

Notes:

(1) Includes AIPAC and TACTI-mel clinical trials
(2) Immutep partnered program
(3) As of January 2, 2018 one clinical trial had not opened enrollment
(4) INSIGHT investigator sponsored clinical trial

● Indicates product candidate developed by Immutep research & development

Sources: GlobalData, company websites, clinical trials.gov, and sec.gov
As of January 2, 2018

Increasing Clinical Trials Targeting LAG-3

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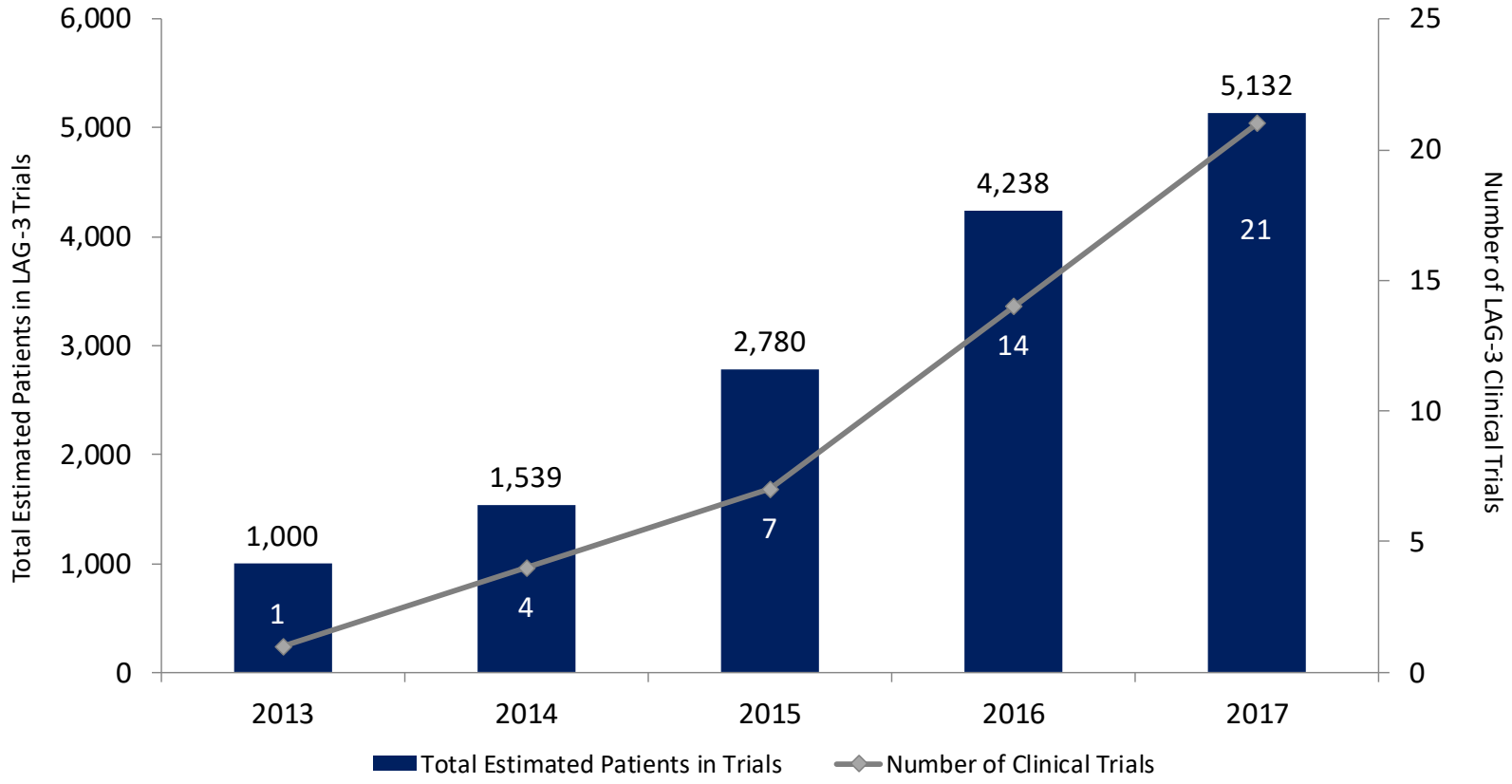
Industry increasingly deploying resources to development of LAG-3 technologies…



Sources: GlobalData, company websites, clinical trials.gov, and sec.gov
As of January 2, 2018

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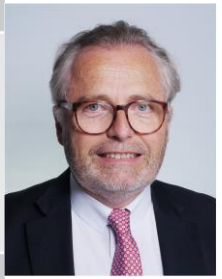
Corporate

Directors and Officers

Marc Voigt, Executive Director & Chief Executive Officer
19+ years in leading positions in finance, venture capital and biotech industry



Prof. Frédéric Triebel, MD PhD, CSO & CMO/Immutep S.A.S.
Clinical haematologist, and PhD in immunology (Paris University) and successfully developed several research programs in immunogenetics and immunotherapy, leading to 144 publications and 16 patents

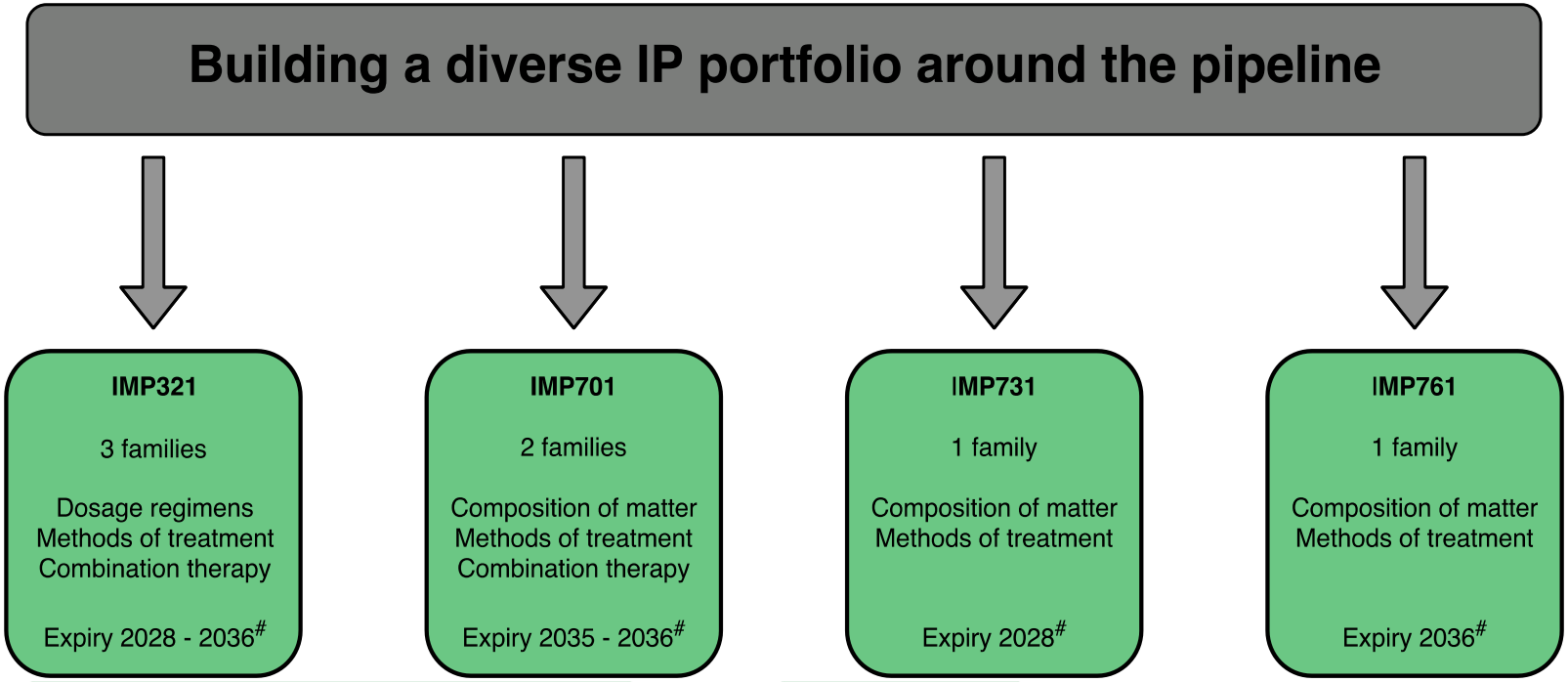
Pete A Meyers, Deputy Chairman, Non-executive Director
CFO of Eagle Pharmaceuticals, Inc., former CFO of Motif Bio and TetraLogic; previous Co-Head of Global Health Care Investment Banking at Deutsche Bank

Russell J. Howard, PhD, Chairman, Non-executive Director
Scientist entrepreneur; previously CEO of Maxygen & Oakbio, positions at NIH, DNAX, Affymax

Grant Chamberlain, Non-executive Director
Former head of M&A and financial sponsors at Bank of America Merrill Lynch in Australia; over 20 years investment banking experience

Deanne Miller, General Counsel, Company Secretary & COO
Lawyer; previous positions at RBC Investor Services, Westpac, Macquarie and ASIC

Intellectual Property



#Plus up to a 5 year extension of term available in some circumstances to compensate for delay associated with obtaining regulatory approval.

Corporate Snapshot

Ticker symbol`	IMMP (NASDAQ - ADRs) IMM (Australian Securities Exchange)
Securities on issue*	2.4 billion ordinary shares 7.0 million issued ADRs
Cash & Term Deposits**	~A$15.0 million (~US$13.3 million)
Market Cap*	A$52.8 million (US$37.7 million)
Avg. Vol. (3 mos)*	4.1 million ordinary shares on ASX 0.1 million ADRs on NASDAQ
Grant Support:	Australian tax credit (43.5% of eligible R&D spent) French tax credit (30% of eligible R&D spent)

**Market references as at 31st December 2017 and market capitalization based on ASX ordinary share price. For a detailed summary of all securities on issue refer to latest Appendix 3B released on ASX. Each ADR represents 100 ordinary shares*

*** As at 8th December 2017*

Upcoming Milestones and News Flow

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Clinical

- Throughout 2018: TACTI-mel data
- Mid 2018: AIPAC should be fully recruited
- Throughout 2018: Single cases from INSIGHT study
- Preclinical data from IMP761 in 2018

Other

- Potential milestone payments from partnerships in the coming years
- Continued expansion of IP
- Ongoing research and clinical efforts
- Regulatory interaction
- Ongoing business development activities

Contact Details

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Company Highlights

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Deep expertise and understanding of the LAG-3 immune control mechanism

Four LAG-3 related product candidates, three of which are in six ongoing clinical trials

The leader in developing LAG-3 therapeutics for IO and autoimmune diseases

Multiple industry partnerships including GSK and Novartis

Expecting data rich and business development news flow in 2018-2019

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Thank you!