PRIMA BIOMED NASDAQ: PBMD, ASX: PRR

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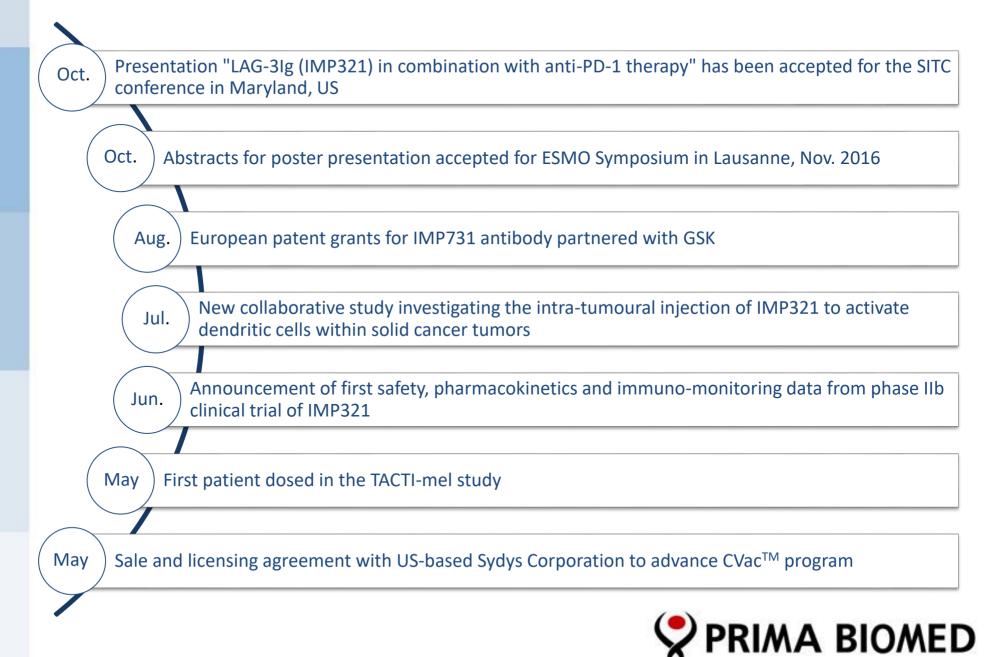


Prima BioMed

- Prima BioMed is a biotechnology company striving to become a leader in immunotherapeutic products for the treatment of cancer and autoimmune diseases.
- Prima's main pipeline of products is based on the LAG-3 immune control mechanism that plays a vital role in the regulation of the T cell immune response.
- Prima BioMed is listed on the Australian Stock
 Exchange and on the NASDAQ Global Market in the US.



Recent Developments



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Directors & Officers



Lucy Turnbull, AO, Non-Executive Chairman Businesswoman and philanthropist; Boards of the Cancer Institute of NSW and Australian Technology Park

Albert Wong, Non-Executive Deputy Chairman Australian investment banker; several directorships





Marc Voigt, Executive Director & Chief Executive Officer 17+ 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), successfully developed several research programs in immunogenetics and immunotherapy, leading to 144 publications and 16 patents



Pete A. Meyers, Non-Executive Director CFO at Motif BioSciences; Previous Co-Head of Global Health Care Banking at Deutsche Bank

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



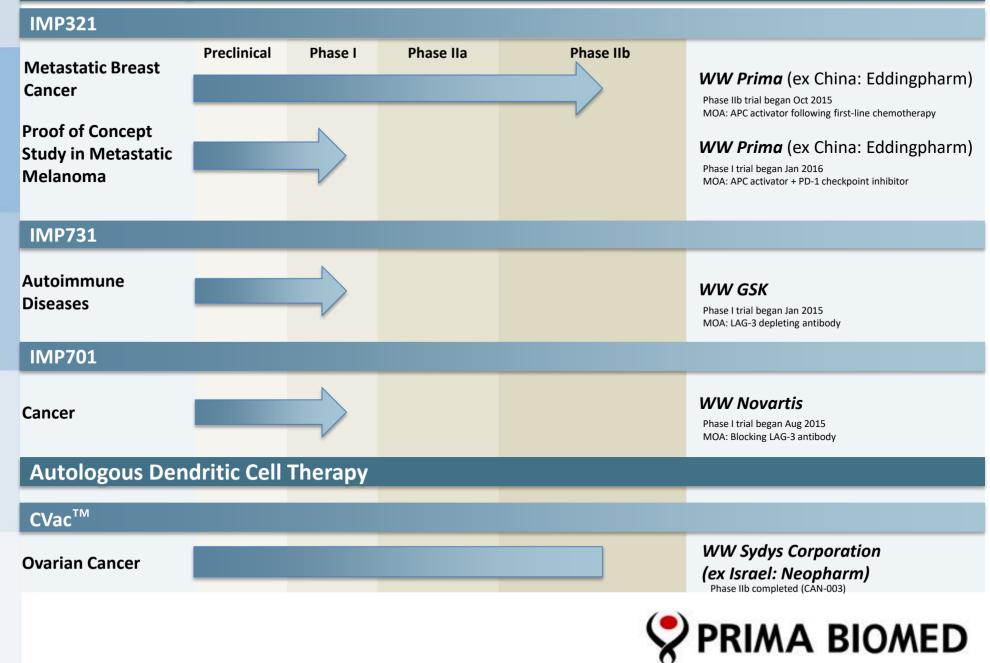
Deanne Miller, General Counsel & Company Secretary Lawyer; positions at RBC Investor Services, Westpac, Macquarie and ASIC



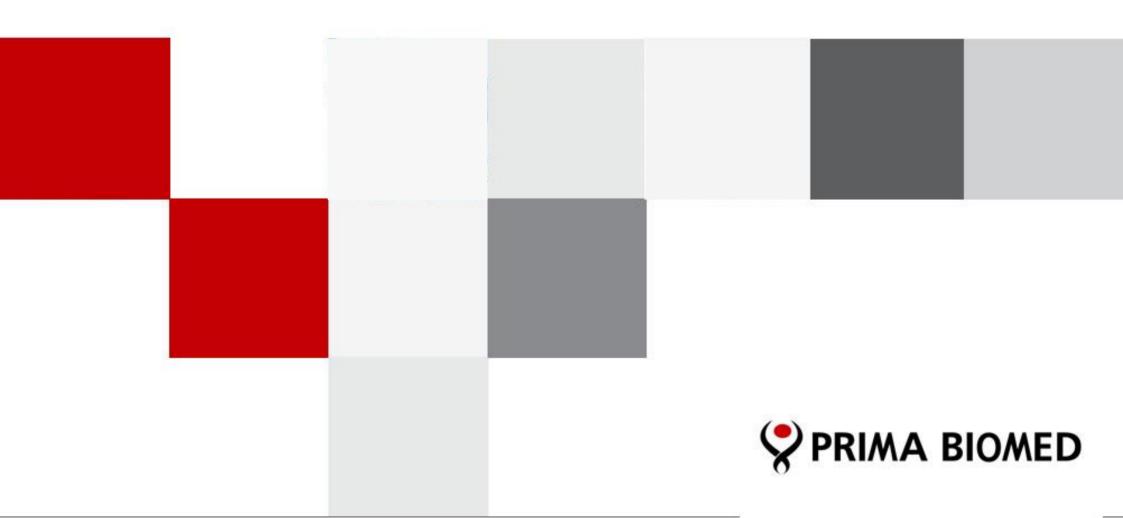


Pipeline

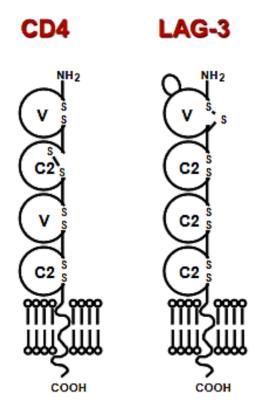
LAG-3 Technologies

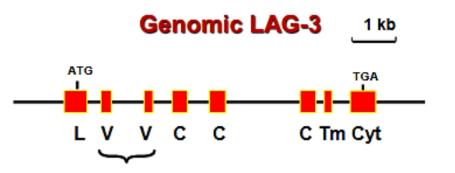


LAG-3 technology



<u>Lymphocyte Activation Gene-3</u> (LAG-3 or CD223)





- 4-IgSF domain transmembrane proteins.
- Same genomic organization (intron in D1, duplication event D1D2 vs D3D4)
- Close proximity on 12p13.

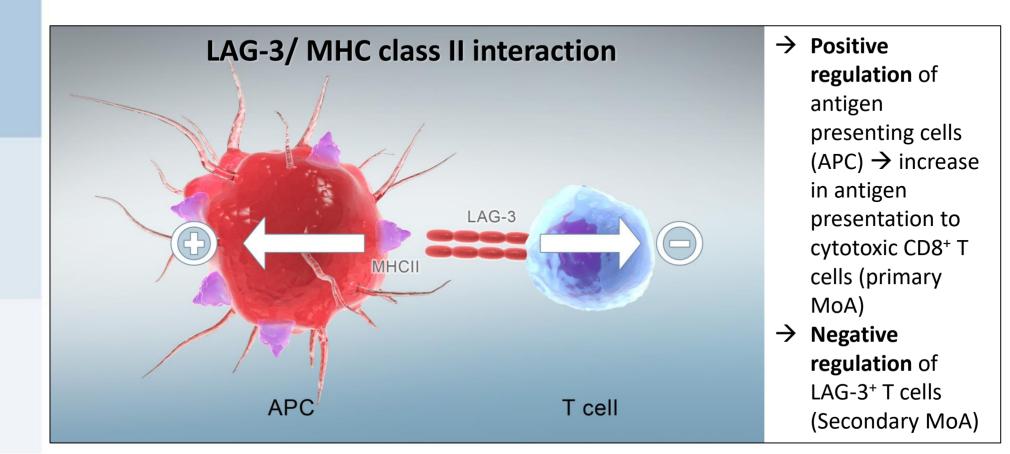


LAG-3 technology

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

 \rightarrow Prime target for an immune checkpoint blocker (like PD-1)

 Functionally similar to CTLA-4 (targeted by Yervoy[®]) and PD-1 (Keytruda[®])



LAG-3 is a hot target in I-O

- Prof. Triebel was the first identifying and describing LAG-3 in the 90's, followed by discovery of LAG-3 ligand MHC class II and its importance in the immune system
- Currently 363 publications dealing with LAG-3 are available on pubmed:
 - 102 publications of LAG-3 in immune system
 - 141 publications of LAG-3 in context of I-O
 - 16 publications of promising pre-clinical data on LAG-3 and cancer immunotherapy¹
- 14 companies developing anti-LAG-3 mAb in pre-clinical & clinical studies (including Prima BioMed and partners)
- LAG-3's potential synergistic function with PD-1 and PD-L1 is very promising²: Simultaneous blockade of LAG-3 and PD-1 synergistically enhance T-cell activity and antitumor immunity in mouse models¹

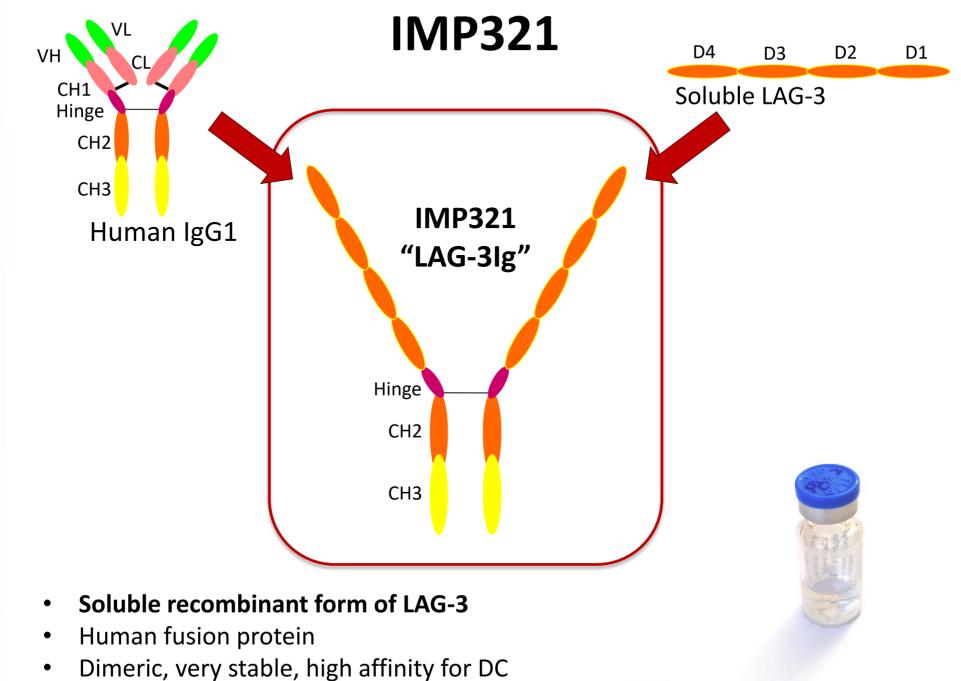
1 He Y. et al. Lymphocyte-activation gene-3, an important immune checkpoint in cancer. Cancer Sci. 2016 Sep



2 Woo et al. Immune inhibitory molecules LAG-3 and PD-1 synergistically regulate T-cell function to promote tumoral immune escape. Cancer Res. 2012

LEAD PRODUCT IMP321

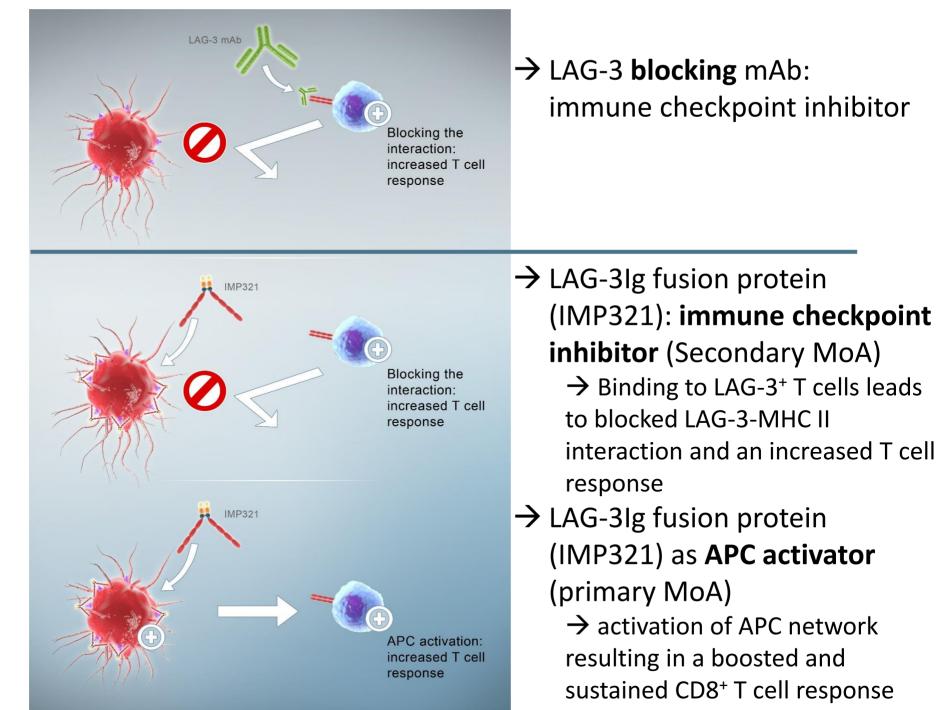




PRIMA BIOMED

- Antigen presenting cell (APC) activator
- Unique and first in class

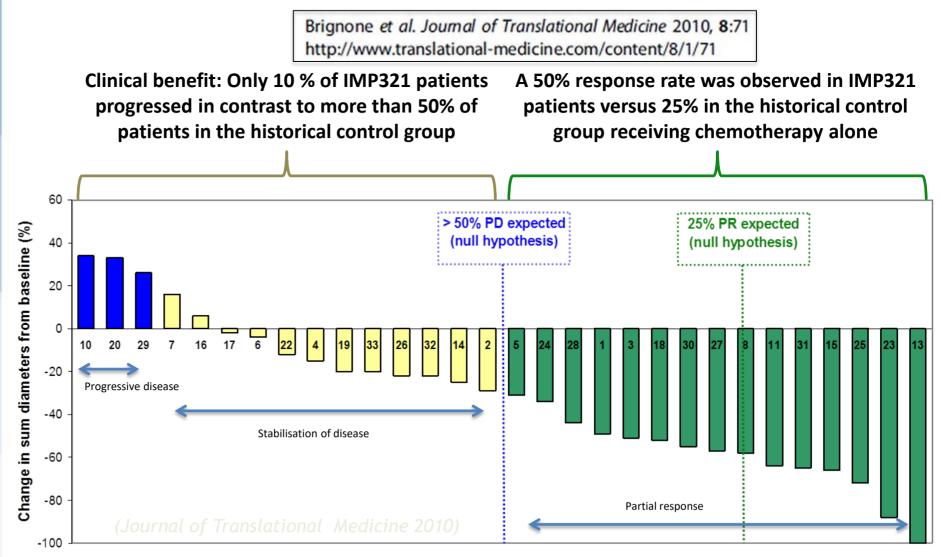
MoA of IMP321 in cancer



IMP321 Phase IIa Data in Metastatic Breast Cancer (MBC)

Compared to the historical control group

(254 patients with measurable disease at baseline on weekly, 3 weeks out of 4, paclitaxel (ECOG 2100 study)*

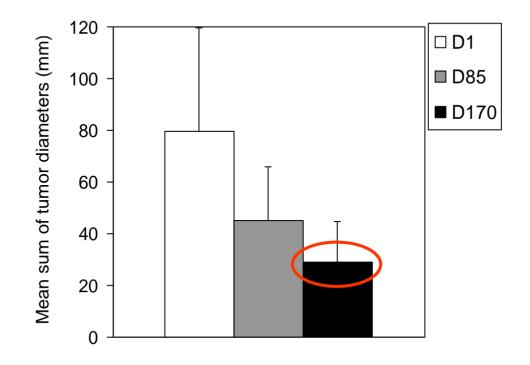


Patient number

The "Late Response Effect"

 \rightarrow Clear evidence of immune involvement

- Further tumor regression between day 85 and day 170 <u>which</u> <u>is not seen with chemo alone</u>
- Such late responses are *<u>characteristic of immunotherapy</u>*



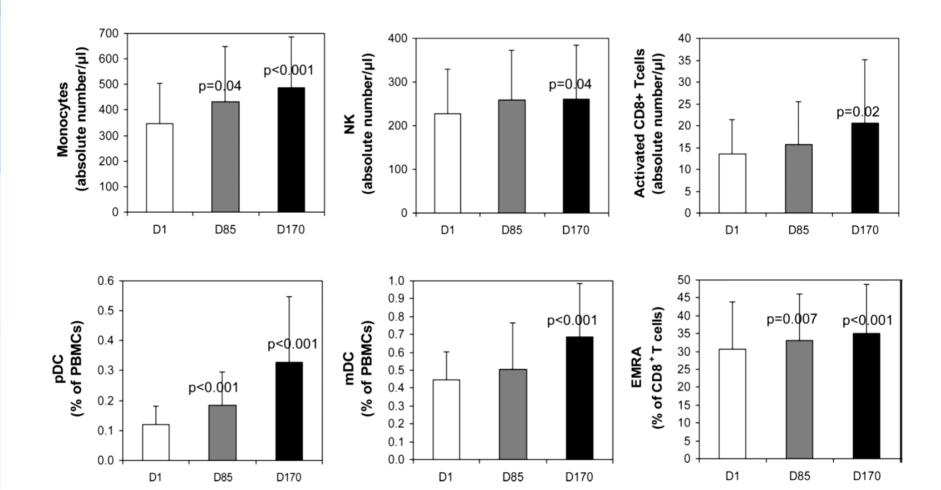


Brignone et al. Journal of Translational Medicine 2010, 8:71 http://www.translational-medicine.com/content/8/1/71

Sustained increase in primary and secondary target cells

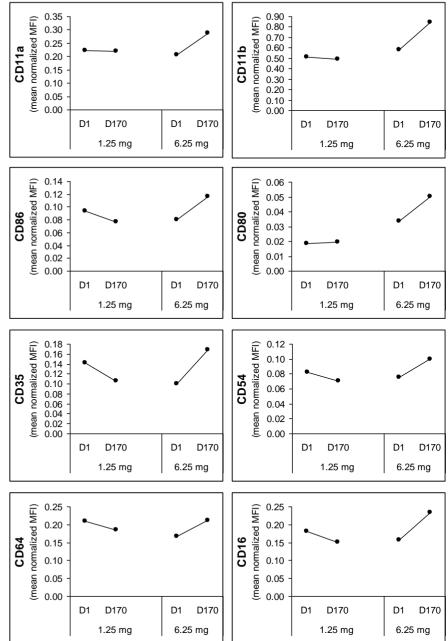
Brignone et al. Journal of Translational Medicine 2010, 8:71 http://www.translational-medicine.com/content/8/1/71

- Increased monocyte, dendritic cell, NK and activated CD8 and memory CD8 T cell counts
- Sustained for at least six months
- Analyzed samples: 13 days after the last injection (i.e. just before the next IMP321 injection)



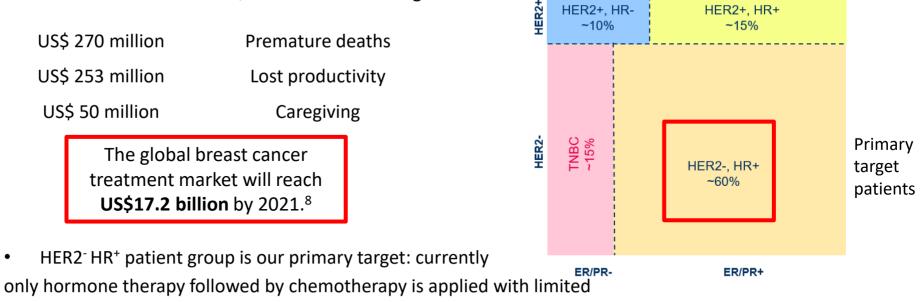
Activation of monocytes by IMP321: all markers are up

- 8 activation markers: CD11a, CD11b, CD16, CD35, CD54, CD64, CD80 and CD86, analyzed on fresh CD14⁺ whole blood cells
- IMP321 dose-response activation of residual monocyte responses at day 13 post-injection in all 8 cases (D170 versus D1)
- Activation seen in the 6.25 mg dose group only
- Activation long-lasting for months; samples are analyzed 13 days after the last injection



Metastatic Breast Cancer Market

- 30% of breast cancer patients are metastatic (at diagnosis or more frequently through recurrence)¹ and 2 out of 3 are HR positive²
- Metastatic breast cancer (MBC) patients have a median survival of 2-4 years³
- **5-year relative survival rate** is only approximately **22%**^{4,5}
- MBC currently remains almost incurable⁶
- In the U.S., annual indirect cost to society attributable to MBC for women under 65 was estimated to be over US\$ 572 million including⁷:



outcome improvement⁹

8. http://www.researchandmarkets.com/research/mg3gms/breast_cancer

18

Other fields will follow \rightarrow label extension



^{1.} O'Shaughnessy J. Extending survival with chemotherapy in metastatic breast cancer. The Oncologist. 2005

^{2.} American Cancer Society. (2014). Hormone therapy for breast cancer. Breast Cancer. Accessed on September 30, 2014 from http://www.cancer.org/cancer/breastcancer/detailedguide/breast cancer-treating-hormone-therapy.

^{3.} Mosher, C. E., Johnson, C., Dickler, M., Norton, L., Massie, M. J., DuHamel, K. (2013). Living with metastatic breast cancer: A qualitative analysis of physical, psychological, and social sequelae. Breast J, 19, 3, 285-92.

^{4.} http://www.cancer.org/cancer/breastcancer/detailedguide/breast-cancer-survival-by-stage

^{5.} Madell, R. Metastatic breast cancer: Life expectancy and prognosis. Healthline. 2014 at http://www.healthline.com/health/breast-cancer/metastatic-prognosisF# Overview1.

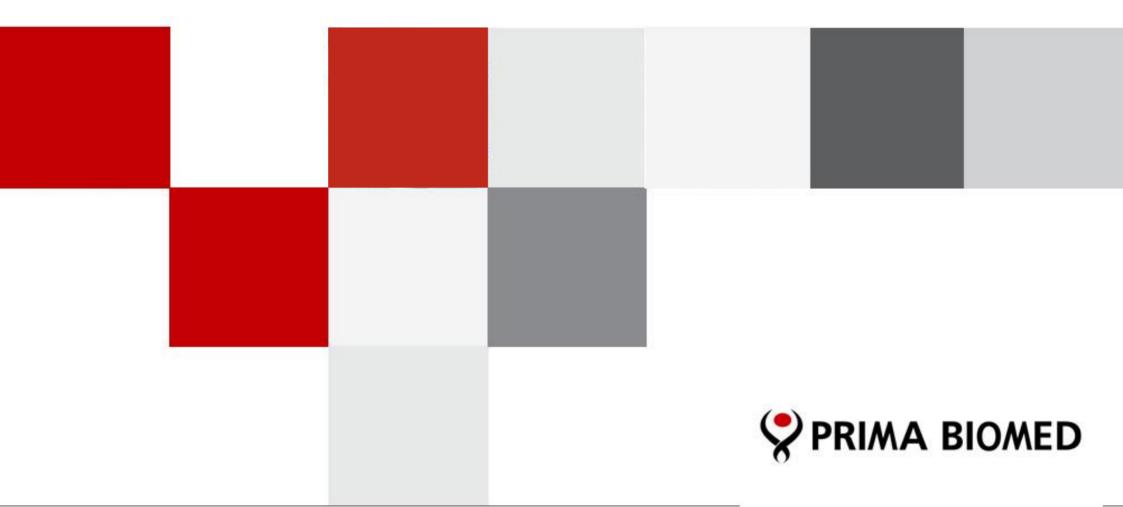
^{6.} American Cancer Society. (2013). Detailed Guide: Breast cancer. American Cancer Society. Accessed on September 6, 2014 a

http://www.cancer.org/acs/groups/cid/documents/webcontent/003090-pdf.pdf.

^{7.} Sorensen , S. V. et al. (2012). Incidence-Based Cost-Of-Illness model for metastatic breast cancer in the United States. International Journal of Technology Assessment in Health Care, 28 1, http://dx.doi.org.proxy1.athensams.net/10.1017/S026646231100064X.

^{9.} Decision Resources 2010

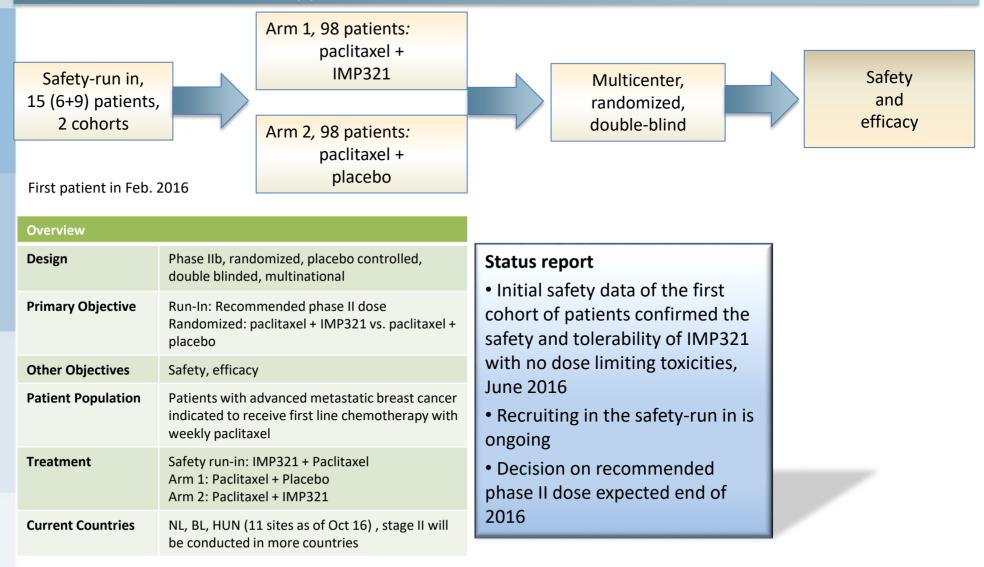
CURRENT CLINICAL TRIALS



IMP321 – AIPAC

AIPAC trial: <u>Active Immunotherapy PAC</u>litaxel

Phase IIb chemo-immunotherapy in metastatic breast cancer in different EU countries

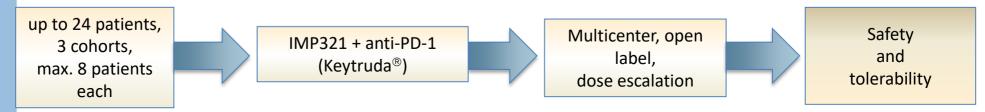




IMP321 – TACTI-mel

TACTI-mel trial: <u>Two ACT</u>ive <u>Immunotherapeutics</u> in <u>melanoma</u>

Phase I study in immuno-immuno combination in unresectable or metastatic melanoma in Australia



First patient in May 2016

Overview			
Design	Phase I, multi-centre, open-label, dose escalation	Status report	
Primary Objective	Safety, tolerability and recommended dose finding for phase II with pembrolizumab + IMP321 in unresectable or metastic melanoma	 6 clinical sites are approved and all are activated Dose escalation decision of 	
Other Objectives	Pharmakokinetic and pharmakodynamic of IMP321, objective response rate, time to next treatment, progress-free survival	the interim data of the first cohort will be expected at the	
Patient Population	Patients with asymptomatic or suboptimal response after three cycles of pembrolizumab	end of this year	
Treatment	Up to 24 patients 3 cohorts: 1/6/30 mg IMP321; s.c. q2w + pembrolizumab; starting with the 5 th cycle of pembrolizumab		



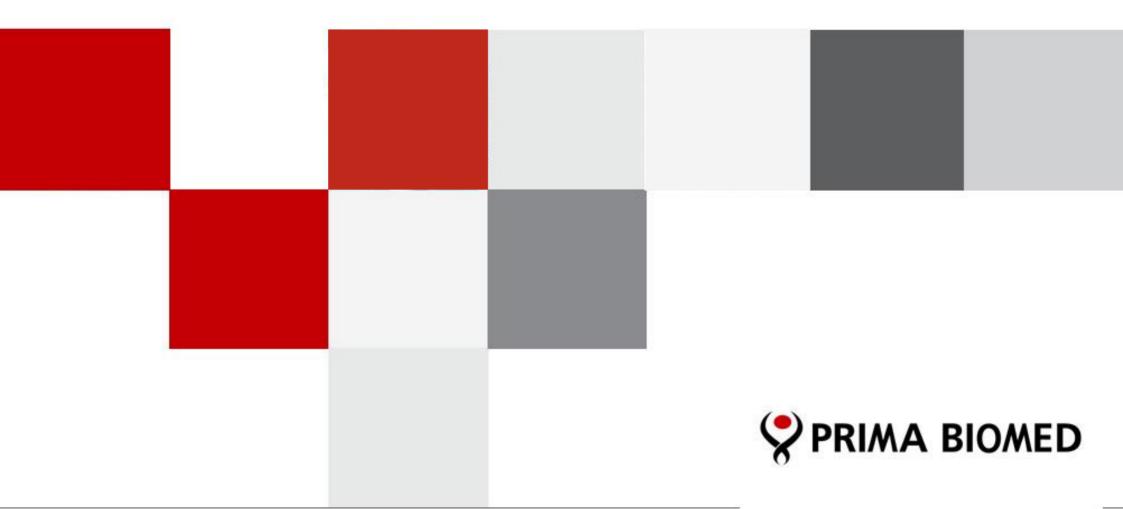
IMP321 – potential applications

Potential combo partner for various different applications:

- Chemo-immunotherapy in different cancer indications
 combo therapy with active agents like Taxanes (e.g. Paclitaxel), anthracyclines, alkylating agents, antimetabolites, vincas
- I-O option in different cancer indications
 - immuno-immuno combo
- Cancer vaccine
 - > To locally stimulate the immune system



PARTNERED PROGRAMS



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.

- GlaxoSmithKline holds exclusive WW rights to IMP731
- Jan 2015: Prima announced a single-digit million US\$ milestone
- Up to £64m in total upfront and milestones + royalties
- Study completion date: April 2018 with 63 pts. (see http://www.gsk-clinicalstudyregister.com/study/200630#ps)
- 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)
- European Patent grants with patent number 142210 in August 2016



UNIVARIATIS IMP701: Antagonist mAb 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 by Novartis (Novartis milestone payment to be received for IMP701 Phase 1 initiation)
- 13 different indications
- Estimated study completion date is October 2018
- Enlarged enrollment from 240 up to 416 pts.
- LAG-525 is used in combination with PD-1 in solid tumours



COMPETITIVE LANDSCAPE



Competitive landscape: APC activators

• Agonist anti-CD40 mAb: in development with anti-PDL-1 antibody by F. Hoffmann-La Roche Ltd

Phase I, 135 patients with locally advanced and/or metastatic solid tumours, estimated completion in Dec.2017

- Toll-Like Receptors
 - Dynavax (DVAX) TLR9 agonist SD101 (in trials with Keytruda)
 - Immune Design (IMDZ) TLR4 agonist
 - Celgene (CELG) partnered with VentiRx (private) for TLR8 agonist



Main players in the LAG-3 field

clinical trials	pre-clinical trials
Novartis (Prima's partner)	Agenus
GSK (Prima's partner)	Tesaro
BMS	Sanofi/Regeneron
Merck	Macrogenics
Boehringer Ingelheim	Peregrine Pharmaceuticals
	RXi Pharmaceuticals Corporation/MirImmune, Inc



POTENTIAL MILESTONES



Expected LAG-3 data 2016 & 2017

- 4Q 2016: IMP321 Phase IIb trial (AIPAC) dose escalation decision (safety run-in phase)
- 4Q 2016: IMP321 Phase I trial (TACTI-mel) dose escalation decision
- 2017: further interim data of IMP321 clinical trials
- 2017: partnered program updates



Corporate Snapshot

Ticker symbol	PBMD (NASDAQ - ADRs) PRR (Australian Securities Exchange)		
Securities on issue*	2.07 billion ordinary shares 77.38 million listed options @ A\$0.20 21.2 million issued ADRs		
Cash & Term Deposits*	~A\$18.19 million		
Market Cap*	A\$78.72 million (US\$59.77 million)		
Avg. Vol. (3 mo)	1,150,067 ordinary shares on ASX (10 th Oct.2016) 90,119 ADRs on NASDAQ (10 th Oct.2016)		
Grant Support:	Australian tax credit (45% of eligible R&D spent) French tax credit (30% of eligible R&D spent)		
Cash reach	extended into 4Q CY 2017		



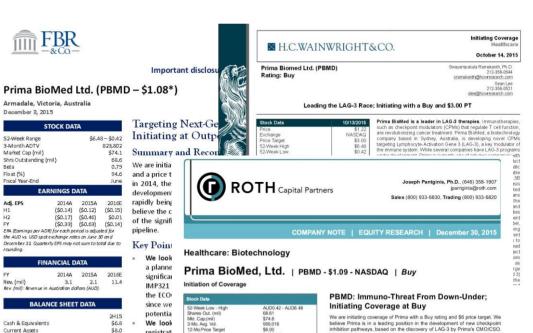
Analyst Coverage

Company

- Maxim Group •
- **Roth Capital Partners** •
- FBR & Co. •
- H.C. Wainwright & Co. ٠

	Coverage Initation	Price Target	Rating
>	April 18, 2016	US \$5.00*	Buy
>	December 30, 2015	US \$6.00	Buy
>	December 3, 2015	US \$6.00	Outperform
>	October 14, 2015	US \$3.00	Buy

N	/ IA	X	M GROUP	EQUITY RESEARCH INITIATION
	Bi	otechnolog	JY	PRIMA BIOMED LTD Buy
PBI	MD - NAS	SDAQ	April 18, 2016	LAG-3: Hitting the Next Checkpoint ; Initiating Coverage
Rating 12-Mo 52-We Share: Float: Avg. D Debt (Divide Divide Risk P	nth Target Pric tek Range: t Cap (M): s O/S (M): Daily Volume (0 M): nd: nd: nd Yield:	e:	\$0.91 Buy \$4.00 \$0.42 - \$6.48 63.7 0.0% 186 \$0 \$0.0% Speculative June	With a Buy Rating and \$4 Price Target Summary • Prima's portfolio of LAG-3 checkpoint modulators and big pharma partnerships may position the company as the LAG-3 leader in what could be the next paradigm shift in immunotherapies for both oncology and autoimmune disease. • LAG-3 has a multifunctional role in the immune system that can be synergistic with blockbuster checkpoints like Keytruda, Yervoy, and Opdivo, as well as vaccines, chemotherapies, and CAR-T. • Novartis (NVS - \$76.30 - NR) and GlaxoSmithKline (GSK - \$43.16 - NR) have already licensed two LAG-3 antibodies from Prima: IMP701-targeting solid tumors and IMP731-targeting LAG-3 Teells in autoimmune diseases.
H1 H2 FY	Tota 2016E 6,405 6,938 13,343	I Expenses ('I 2017E 6,725 7,285 14,010	2018E 7,061 7,650 14,711	 Proof of concept (POC) is in hand for Prima's lead in-house LAG-3, IMP321, a soluble form of LAG-3 that ramps up the immune system after chemotherapy. A phase IIb registration study is now underway and, if positive, could mean commercial launch by 2020. We expect another big pharma partner to follow Novarits and GSK for IMP321.
H1 H2 FY	2016E (0.11) (0.10) (0.20)	GAAP EPS 2017E (0.03) (0.03) (0.06)	2018E 0.04 0.04 0.04 0.07	Novartis and GSN for IMF321. • Conclusion: Three LAG-3 checkpoints (and two more undisclosed in development), three blockbuster indications, and the right partners should translate into multiple opportunities for Prima to capture significant royalties and drive value for investors, in our opinion. Details
190 190 80- 60- 40-	MD ume (MM)	Source: Factset	Price (USD) 7 6 5 4 3 2	The LAG-3 platform. The LAG-3 (lymphocyte activation gene-3) checkpoint is rapidly emerging behind PD1 and CTLA-4, in our view. LAG-3 has a multi-functional role which can be exploited in different ways to alter immune responses and is potentially synergistic with other immunotherapies (vaccines, other checkpoint, CAR-T) and chemotherapy. Prima BioMed's acquisition of Immutep SA (private) in 2014 brought a portfolio of LAG-3-targeting assets into the Prima pipeline and positioned the company as the LAG-3 leader. In addition, Immutep's founder, Frédéric Trebel, MD, PhD has pined Prima as Chief Medical Officer to oversee LAG 3 amount follow (LAG 3 and the CAG 3 amount follow (LAG 3 and the CAG 3 and t



Current Assets \$8.0 Total Assets \$31.0 Total Liabilities \$6.3 Total Stockholder Equity \$24.7 Total Debt \$0.0 In millions of Australian dollars (AUD). Cash position does not reflect \$25 million AUD in calendar year 2H15

We look registrat advice fr	Mkt. Cap.(3-Mo. Avg. 12-Mo.Pric Cash (mil) Tot. Debt (Vol. e Target	\$74.8 959,016 \$6.00 AUD24. AUD0.0	4
agency's	EPS \$AUD			
the EMA	Yr Jun	-2014-	-2015-	2016E
	1 1000		Curr	Curr
AIPAC re	10			
	2Q	(0.01)A	A(10.0)	0.00E
We do n	3Q			
	4Q	(0.01)A	(0.02)A	0.00E
	YEAR	(0.01)A	(0.02)A	(0.01)E
	Prima announces financial results on a half-yearly basis. Results maynot add to full year based on increases in share count and round?			
	Revenue (\$AUD millions)			
	Yr Jun	-2014-	-2015-	-2016E-
			Curr	Curr

Event Prima has undergone a significant transformation, in our belief. The company was founded in 2001 in Australia. The primary focus for Prima was the development of the therapeutic cancer vaccine, CVac, primarily for ovarian cancer. Over the course of a few years, until May 2015, the stock experienced significant volatility based on two primary factors: 1) mixed results emerging from CVac studies and 2) management changes during those times. However we believe the company has now been transformed under the leadership of Verbiever the Company has now been transioning output are expensional of CEO Marc Volamitand especially with the Cotober 214 acquisition of Immutep SA (private) for \$25 million, focusing on the Lymphocyte-activation gene 3 or LAG-3. LAG-3 is a major factor involved in the regulation of T-cells in immune responses. The company is now entirely focused on the LAG-3 program and

in February 2015 announced that it was no longer enrolling CVac studies and the product is now available for partnering.

Initial clinical efficacy has been promising and has also delivered two global pharma partnerships. We recommend building positions in Prima.

*updated price target May 17th, 2016



Thank you!