

IMUGENE

ASX:IMU



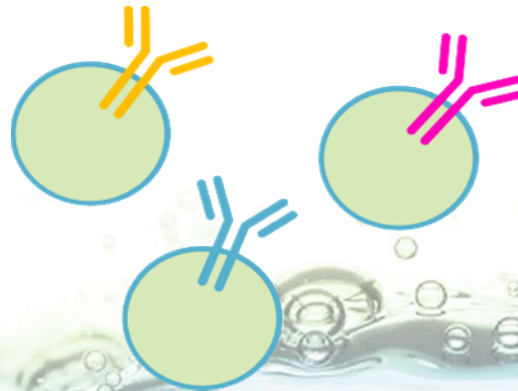
# MIMOTOPE INDUCED B-CELL ANTIBODIES FOR IMMUNO-ONCOLOGY

Leslie Chong | Chief Executive Officer  
AGM

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## EXECUTIVE SUMMARY

- Experienced management & board
- Novel oncology platforms: Mimotopes: B cell peptide vaccines – IP protected to 2036
- Lead mimotope: HER-Vaxx Phase 1b/2 mimotope study in Her2+ gastric cancer (large unmet medical need by current existing therapies)
  - POC demonstrated in Phase 1 Her-2+ breast cancer study – safety & immunogenicity established
- Discovery Pipeline: Mimotope candidate selection and Arginine modulators in pre-clinical development
- Numerous milestone announcements & valuation inflection points over next 12-18 months



## A TEAM WITH TRACK RECORD IN DRUG DEVELOPMENT



**Leslie Chong (Sydney, Australia)**

Chief Executive Officer

- Over 19 years of oncology experience in Phase I - III of clinical program development
- Leadership role involvement in 2 marketed oncology products
- Previously Senior Clinical Program Lead at Genentech, Inc., in San Francisco



**Prof Ursula Wiedermann (Vienna, Austria)**

Chief Scientific Officer

- Co-inventor of HER-Vaxx;
- Professor of Vaccinology at Medical University of Vienna



**Dr Axel Hoos (Philadelphia, U.S.A.)**

Non-Executive Director

- Currently Vice President Oncology R&D at GlaxoSmithKline
- Previously Clinical Lead on Ipilimumab at Bristol-Myers Squibb
- Co-Director of the think-tank Cancer Immunotherapy Consortium



**Prof Christoph Zielinski (Vienna, Austria)**

Head of Scientific Advisory Board

- Chairman of the Comprehensive Cancer Centre in Vienna
- Chairman of the Centre for Eastern EU Organisation for Research and the Treatment of Cancer (CEEORTC)
- Editor in Chief and President Nominee of European Society of Medical Oncology (ESMO)



**Paul Hopper (Sydney, Australia)**

Executive Chairman

- International & ASX biotech capital markets experience particularly in immuno-oncology & vaccines
- Chairman of Viralytics, Founder & Director of Prescient, Founder of Imugene & Polynoma LLC, former Director pSivida, Somnomed & Fibrocell Science



**Dr Nick Ede (Melbourne, Australia)**

Chief Technology Officer

- Over 25 years peptide vaccine and drug development
- Former CEO Adistem, CEO Mimotopes
- VP Chemistry Chiron (now Novartis), Research Fellow CRC Vaccine Technology

# A BETTER WAY TO MAKE ANTIBODIES TO TREAT CANCER?

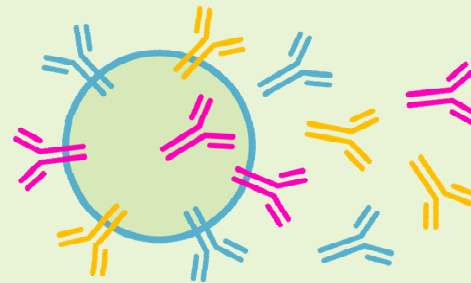
IN A FACILITY



For example, Roche's Herceptin

VS

USING B CELLS IN YOUR OWN BODY

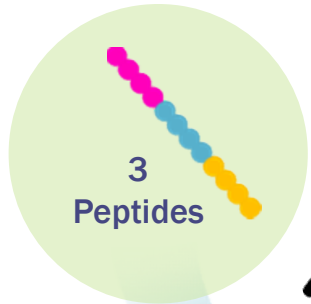


B Cells are cells in the human body that naturally produce millions of antibodies

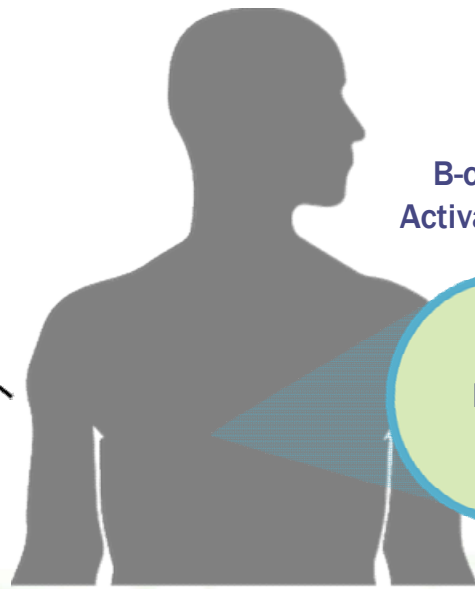
Teaching B cells to make antibodies using peptide mimotopes

# HER-Vaxx MIMOTOPE: MECHANISM OF ACTION

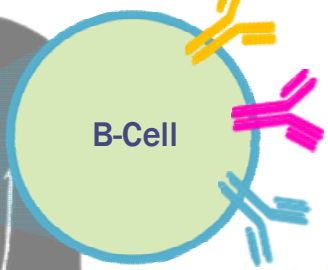
Peptides  
"mimic" the  
epitope



HER-Vaxx  
Immunotherapy



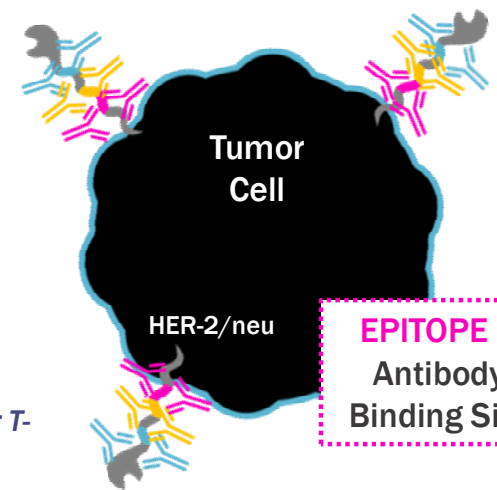
B-cell  
Activation



HER-Vaxx  
Antibody Secretion



Via helper T-  
cells



EPITOPE =  
Antibody  
Binding Site



HER-Vaxx attacks the  
same target as the  
the world's largest  
selling breast cancer  
drug Herceptin

# ADVANTAGES OF MIMOTOPE INDUCED B-CELL BASED ANTIBODIES V. SYNTHETIC ANTIBODIES

Issue	Natural B Cell Derived Antibodies	Monoclonal Antibodies
Safety	Stimulates the immune system to produce natural Abs, potentially safer, as demonstrated by HER-Vaxx	Synthetic Ab, with side effects (including ventricular dysfunction, CHF, anaphylaxis, immune mediation)
Efficacy	Polyclonal Ab response reduces risk of resistance and potentially increases efficacy	Monoclonal Ab - single shot
Durability	Antibodies continuously produced a lasting immune response to inhibit tumor recurrence	Half life up to 12 days sometimes less
Usability	Potentially low numbers of vaccinations required per year	Requires regular infusion
Cost	Low cost of production enables greater pricing flexibility facilitating combinations and opening up additional markets	Expensive course of treatment >USD100K per year in the US

**B-Cell Vaccines offer a unique opportunity to intervene at multiple points in the immune system and create immune memory which enhances durability of response.**

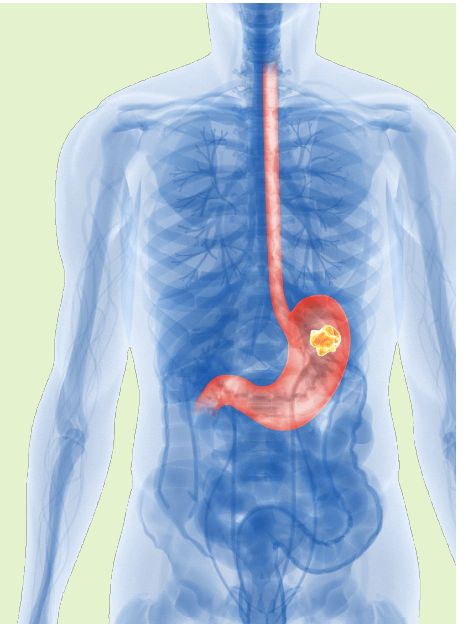
# PHASE 1B/2, IN GASTRIC CANCER

## Phase 1b lead-in

- Open label
- ~Up to 18 patients in 3 cohorts of up to 6 pts per cohort
- Combination with chemo/cisplatin
- Endpoints:
  - Recommended Phase 2 Dose of HER-Vaxx
  - Safety: any HER-Vaxx toxicity
  - Immunogenicity (anti-HER-2 antibody titres)

## Phase 2

- Open label
- ~70 patients from sites in Asia
- Combination with chemo
- Randomized
- Primary Endpoints:
  - TBD PFS and/or OS
  - (cont. on Ph1b results)
- Secondary endpoint:
  - Immune response



2H, 2017 :  
Patients Enrolled

2H, 2017: Early Patient  
Data Available

2H, 2017: Interim Ph1b  
Patient Data Available

1H, 2018: Final Ph1b  
Patient Data Available



# 2016 to 2017

Feature	2016	2017
Phase 1b open	No	Yes
Mimotope pre-clinical development	No	Yes
Share price	0.75 cents	2 cents
Market Capitalization	\$16 million	\$50 million
Cash at bank	\$1.5 million	\$5.3 million (Nov 2017)
Institutional Shareholders	No	Yes ( Platinum & PPM)

# FINANCIAL SUMMARY

## ASX:IMU

Market Cap (26/Oct/17)	\$52.1M AUD, \$39.8M USD
Ordinary Shares	2.370 billion
12 month price range	0.7 cents – 2.1 cents AUD
Avg daily volume	2.7M shares (July-September 2017)
Investment to Date	~\$15.2 m (public) ~\$ 5.5 m (VC)
Cash & Equivalents	\$5.3M as of September 2017

## Top 5 shareholders (as at Sept. 2017)

	No. of Shares	% Capital
Platinum Asset Management	240,387,753	10.14%
National Nominees Limited	97,002,685	4.09%
Webinvest Pty Ltd	85,000,000	3.59%
Paul Hopper Executive Chairman	71,696,875	3.03%
Tisia Nominees	59,899,999	2.53%

## SUMMARY OF ACHIEVEMENTS

- Imugene ended cash reserves of AU\$5.3 million on September 2017
- Confirmed full and final country ethics committee and regulatory approvals
- First Phase Ib/2 study patients dosed for our lead compound HER-Vaxx in gastric cancer
- Continued patient recruitment at clinical study sites in Asia
- Starting activities to expand the Phase 1B/2 study
- Secured further intellectual property for immuno-oncology platform technology
- Advanced development of next generation of therapy targets and pipeline

