ASX Announcement

Recce Pharmaceuticals
recce.com.au
ACN 124 849 065

Investor Presentation – April 2019

Sydney, Australia, 10 April 2019: Recce Pharmaceuticals Ltd (ASX: RCE) (**Company**) provides the **attached** Investor Presentation to the market, which includes the following key highlights:

- An overview of the Company and its lead compound, RECCE® 327;
- An outline of the TGA Special Access Scheme regime; and
- An overview of how RECCE® 327 is manufactured.

About Recce Pharmaceuticals Ltd

Recce Pharmaceuticals Ltd (ASX: RCE) is pioneering the development and commercialisation of a new class of synthetic antibiotics with broad spectrum activity designed to address the urgent global health problem of antibiotic resistant superbugs. Its patented lead candidate known as RECCE® 327 has been developed for the treatment of blood infections and sepsis derived from *E. coli* and *S. aureus* bacteria – including their superbug forms. Pre-clinical testing in laboratories and animal models, in Australia and overseas has demonstrated positive results. Recce has a manufacturing facility in Australia and is developing clinical research partners in the USA. The Company has developed an automated process to manufacture its lead compound ahead of first-in-human clinical trials.

Recce Pharmaceuticals

James Graham - Executive Director

Non-Deal Roadshow Singapore & Hong Kong

Healthcare Investor Day

Spark+ **April 2019**

Disclaimer

DISCLAIMER

This presentation has been prepared by Recce Pharmaceuticals Ltd (the "Company"). It does not purport to contain all the information that a prospective investor may require in connection with any potential investment in the Company. You should not treat the contents of this presentation, or any information provided in connection with it, as financial advice, financial product advice or advice relating to legal, taxation or investment matters.

No representation or warranty (whether express or implied) is made by the Company or any of its officers, advisers, agents or employees as to the accuracy, completeness or reasonableness of the information, statements, opinions or matters (express or implied) arising out of, contained in or derived from this presentation or provided in connection with it, or any omission from this presentation, nor as to the attainability of any estimates, forecasts or projections set out in this presentation.

This presentation is provided expressly on the basis that you will carry out your own independent inquiries into the matters contained in the presentation and make your own independent decisions about the affairs, financial position or prospects of the Company. The Company reserves the right to update, amend or supplement the information at any time in its absolute discretion (without incurring any obligation to do so).

Neither the Company, nor its related bodies corporate, officers, their advisers, agents and employees accept any responsibility or liability to you or to any other person or entity arising out of this presentation including pursuant to the general law (whether for negligence, under statute or otherwise), or under the Australian Securities and Investments Commission Act 2001, Corporations Act 2001, Competition and Consumer Act 2010 or any corresponding provision of any Australian state or territory legislation (or the law of any similar legislation in any other jurisdiction), or similar provision under any applicable law. Any such responsibility or liability is, to the maximum extent permitted by law, expressly disclaimed and excluded. Nothing in this material should be construed as either an offer to sell or a solicitation of an offer to buy or sell securities. It does not include all available information and should not be used in isolation as a basis to invest in the Company.

FUTURE MATTERS

This presentation contains reference to certain intentions, expectations, future plans, strategy and prospects of the Company.

Those intentions, expectations, future plans, strategy and prospects may or may not be achieved. They are based on certain assumptions, which may not be met or on which views may differ and may be affected by known and unknown risks. The performance and operations of the Company may be influenced by a number of factors, many of which are outside the control of the Company. No representation or warranty, express or implied, is made by the Company, or any of its directors, officers, employees, advisers or agents that any intentions, expectations or plans will be achieved either totally or partially or that any particular rate of return will be achieved.

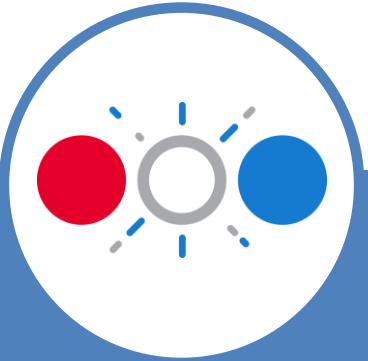
Given the risks and uncertainties that may cause the Company's actual future results, performance or achievements to be materially different from those expected, planned or intended, recipients should not place undue reliance on these intentions, expectations, future plans, strategy and prospects. The Company does not warrant or represent that the actual results, performance or achievements will be as expected, planned or intended.

US DISCLOSURE

This document does not constitute any part of any offer to sell, or the solicitation of an offer to buy, any securities in the United States or to, or for the account or benefit of any "US person" as defined in Regulation S under the US Securities Act of 1993 ("Securities Act"). The Company's shares have not been, and will not be, registered under the Securities Act or the securities laws of any state or other jurisdiction of the United States, and may not be offered or sold in the United States or to any US person without being so registered or pursuant to an exemption from registration including an exemption for qualified institutional buyers.

About Recce Pharmaceuticals Ltd

Recce Pharmaceuticals is commercialising a New Class of Broad Spectrum antibiotics to address the global health issue of antibiotic resistant superbugs.



Listed on ASX 2016
(ASX:RCE)

New Class of Broad Spectrum antibiotics that kill Gram + and Gram – bacteria, including their superbug forms - even with repeated use!

Lead indication for treatment of sepsis – #1 most expensive condition.

Qualified Infectious Disease Product designation under GAIN Act.

10 years market exclusivity (post approval).

Fast track (life of regulatory process).

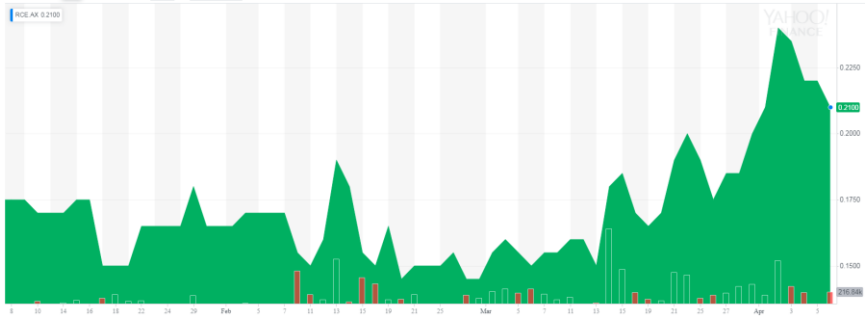
Patented manufacturing, producing to Phase I & II volumes.

Recce Pharmaceuticals Ltd - Capital structure

Major shareholders 31 March 2019

1.	G. & O. Melrose*	28.3%
2.	Acuity Capital Investment	4.2%
3.	J. Graham*	4.0%
4.	JP Morgan Nominees*	3.9%
5.	R. Gustafson	3.1%

ASX:RCE 3 months



* Held by Executive Directors

Snapshot

ASX code	**RCE**
Shares on issue	**107.13 million**
Share price	**AUD 0.19 cents**
Market Cap (approx.)	**AUD $20.4 million**
Cash and deposits* February 2019	**AUD $1.8 million**
Trading range 52 week	**AUD 13-24.5 cents**
Average daily volume 1 month	**311,994**

**Recent placement of A$1.8 million (BC) as of 8th February 2019*

Tackling superbugs – RECCE® 327 (video)

Sepsis – it's a big problem!

Sepsis affects **+30 million people** worldwide*[1]

258K deaths recorded in the US yearly[2]

$24bn in **annual costs** treated in US hospitals[3]

- Sepsis is a life threatening inflammatory response to infection that has spread in the body.[4]
  - Kills more people in the US than **prostate**, **breast** and **lung cancer** combined.[5]
- **Most expensive condition to treat** - double the average cost per stay across all other conditions.[6]
- Over 750,000 cases of severe sepsis reported in the US alone.[7]
- ***Currently no drug therapies specifically for the treatment of sepsis.***[8]

1 – WHO
2,3,5 – Sepsis Alliance
4 – Mayo Clinic
6,7,8 – National Centre for Biotechnology Information

**growing at an annual rate of 8-13%*

Natural antibiotics vs synthetic antibiotics

Natural antibiotics

Pre-formed
natural superbugs

- All Fungi or Bacteria based
  - "*Penicillin allergy is the most common drug allergy and is reported in up to 15 percent of hospitalized patients*"[1]
- Only as good as what's found in nature
- Has always had naturally occurring superbugs, now multiplying out of control!

Synthetic antibiotics

NO Pre-formed
natural superbugs

- Entirely man-made and designed with purpose
- Universal Mechanism of Action - detailed experimentation demonstrates it does not succumb to superbugs.
- Contains only what we want - not reliant on what's found in nature
- Broad Spectrum capability and maintains its activity even with repeated use!

[1] *https://www.uptodate.com/contents/choice-of-antibiotics-in-penicillin-allergic-hospitalized-patients/abstract/1*

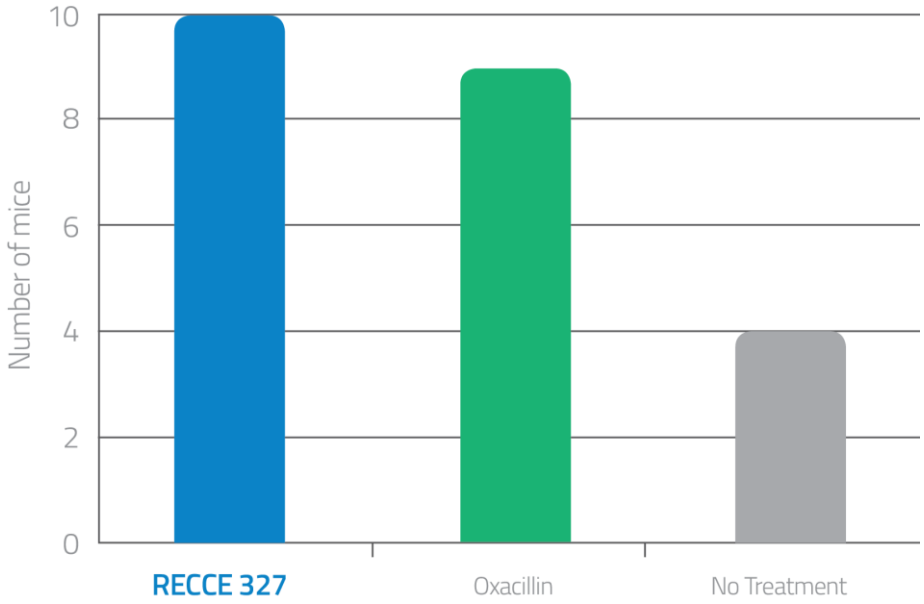
RECCE® Antibiotics – Curative study*

- Three groups of 10 mice were each infected with MRSA (*S. aureus* superbug)
- All ten mice treated with RECCE® antibiotic survived
- Nine mice treated with current antibiotic (Oxacillin) survived
- Four mice that had no treatment at all, survived

Note: Oxacillin was chosen for its known activity against MRSA. It is however a 'narrow-spectrum' antibiotic. In a clinical context, where diagnostics cannot immediately determine bacterial type, use in combatting any number of other bacteria, may likely see a less favorable patient outcome…

RECCE® 327, with its proven 'broad-spectrum' activity, has shown strength against a range of bacteria including superbug forms, delivering rapid kill of deadly germs.

Number of mice that survived
Sepsis from *S. aureus (superbug)*



recce.com.au

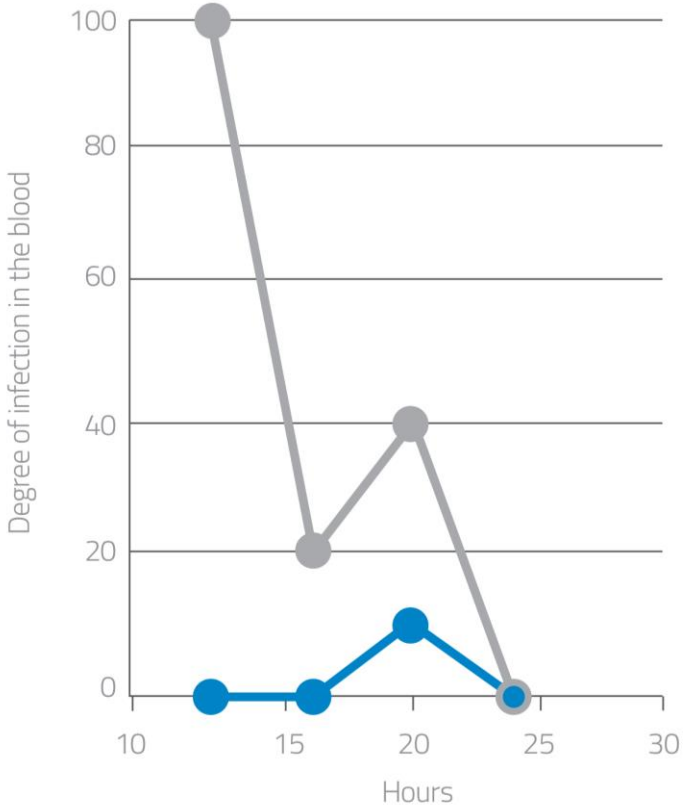
* Results from an independent laboratory in USA

RECCE® Antibiotics – Preventative study*

Controlled study with two groups of mice:

- **Blue** group represent mice with RECCE® 327 already flowing through blood stream
- **Grey** group represent mice with no treatment
- At 0 hours both groups were introduced with significant *S. pyogenes* bacterial burden to the blood stream
- Due to RECCE® 327 already present in a preventative role, introduction of bacteria to the blue group **DID NOT** lead to established infection
- Results were monitored at 12th hour (per industry standard) to allow bacterial infection to develop in host
- After the 12th hour, *S. pyogenes* appears to be clearing naturally from the blood – **WRONG**
  - Bacteria in grey group rapidly colonising in the kidneys – commonly resulting in catastrophic organ failure
  - **NOT** in RECCE's case. Bacteria in blood rapidly killed and unable to establish infection in kidneys

Sepsis in mice from *Streptococcus pyogenes*



*** Results from an independent laboratory in USA**

RECCE® antibiotics kill at practical speeds

Rates of kill of standard bacteria

S. aureus	*E. coli*	*P. aeruginosa*	*S. pyogenes*	*C. difficile*
20-60 minutes	20-60 minutes	3-24 hours	20-60 minutes	20-60 minutes

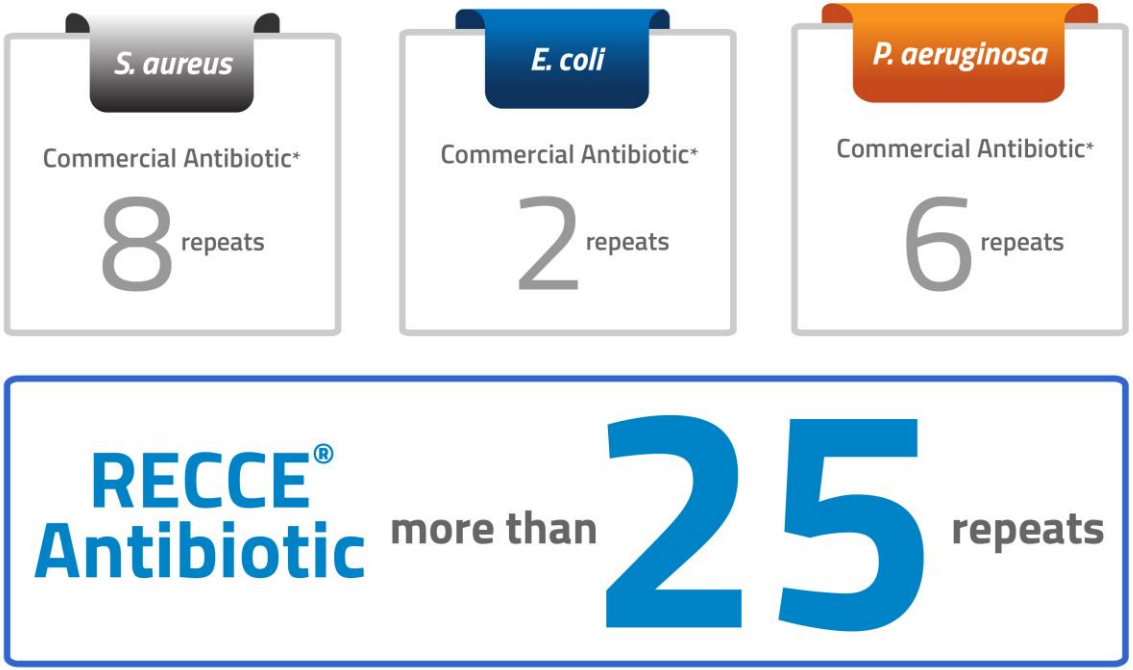
Rates of kill of Superbugs

S. aureus	*E. coli*	*P. aeruginosa*	
20-60 minutes	20-60 minutes	3-24 hours	**The same kill-rates for standard bacteria and their superbugs**

All concentrations of bacteria (germ) were 10^6 cfu/ml
Concentration of RECCE antibiotic was 1,000 ppm against all bacteria except P. aeruginosa
2,000 ppm was used against P. aeruginosa

RECCE® antibiotics do not Fail[1]

Number of repetitive uses before displaying loss of antibiotic activity

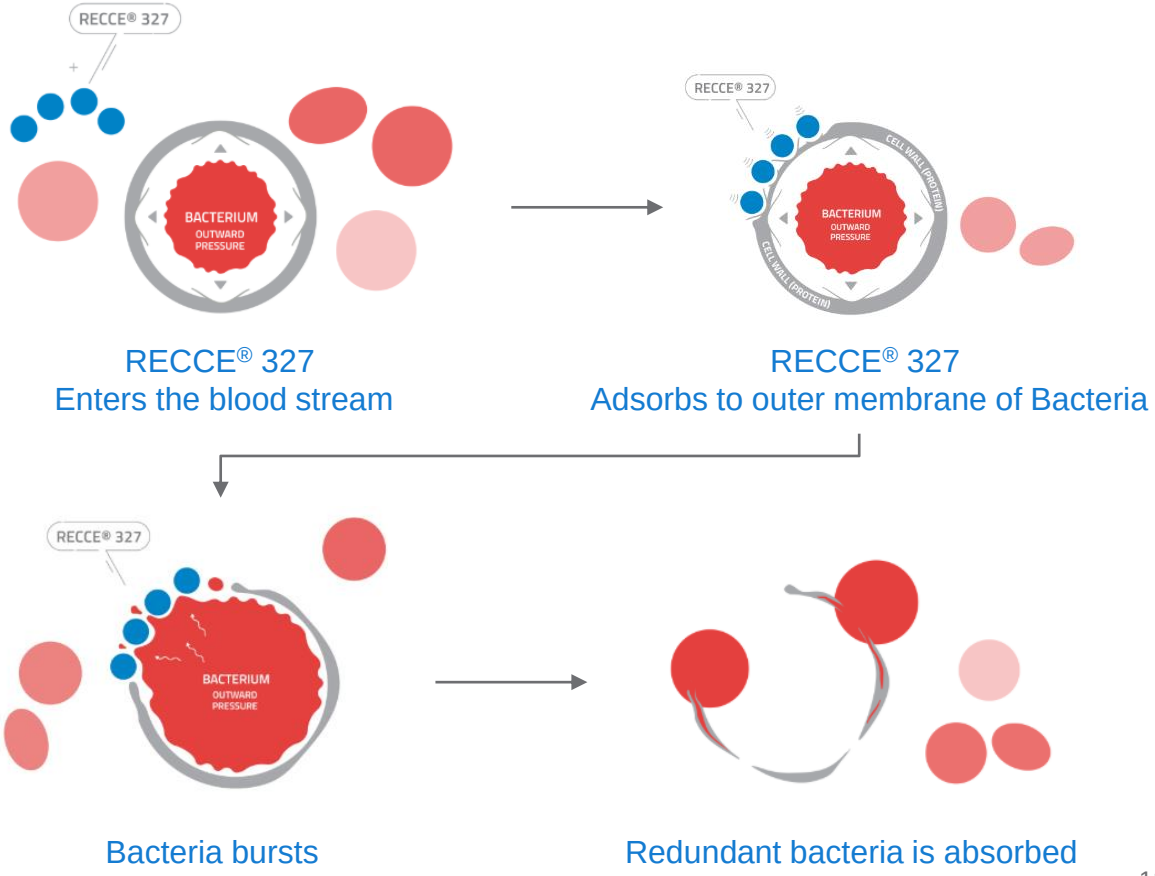


[1]After repetitive use, the commercial antibiotic loses activity; **RECCE® antibiotic DOES NOT**

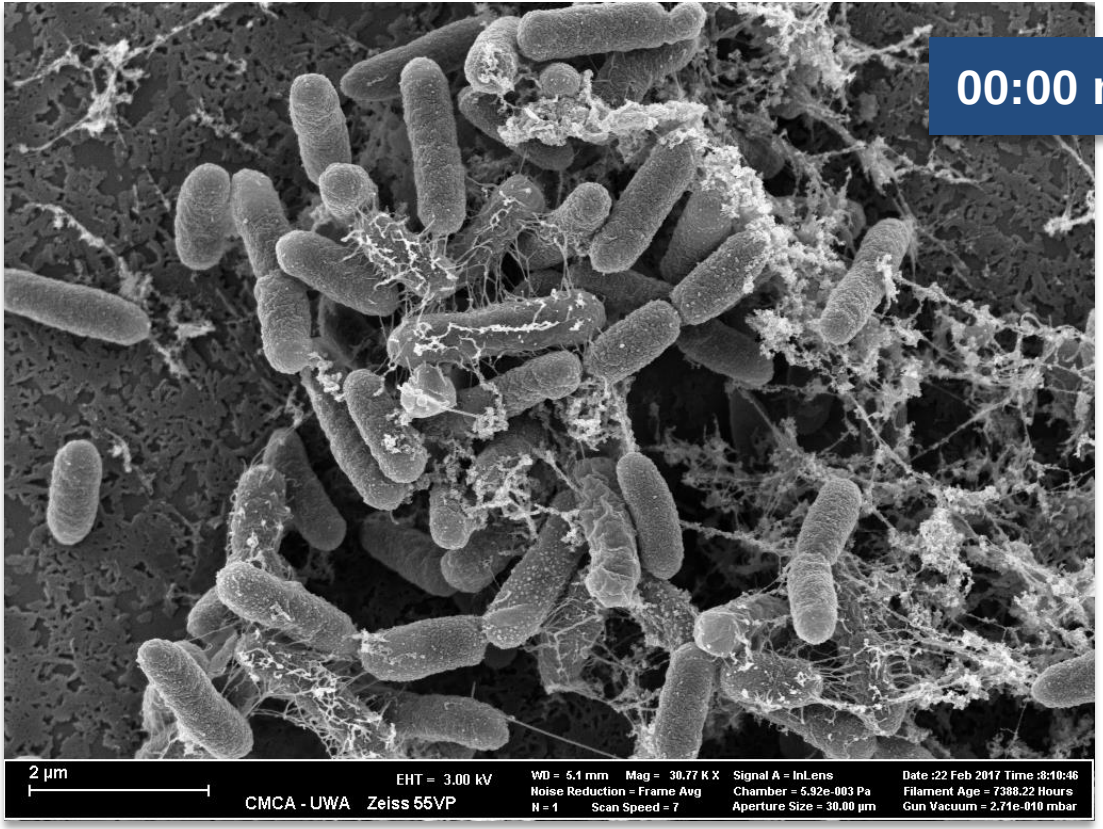
*'Commercial Antibiotic' generates over US $10bn in revenue

RECCE® 327 – how it works (in more detail)

- RECCE® antibiotics, attracted by protein in a bacteria's outer membrane, non-specifically attach through hydrophobic interaction
- Weakening the outer cell wall, internal pressure causes the bacteria to burst and lose viability
- Outer protein can mutate as much as it likes (superbug) - RECCE® antibiotic will still kill it!



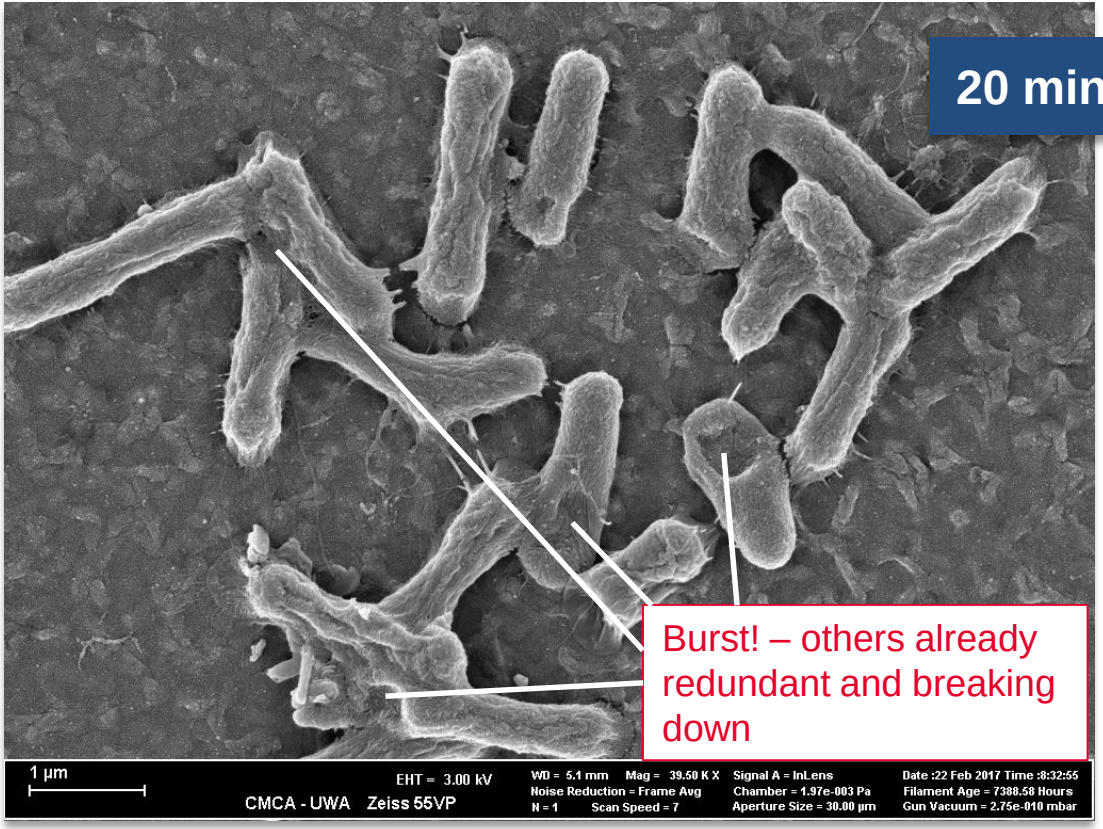
RECCE® 327 Mechanism of Action in practice



Before application of RECCE® 327, the *E.coli* bacteria cells are healthy, smooth and intact

This is a high-definition electron microscope image generated in February 2017 by Dr Peta Clode and Lyn Kirilak of the Centre for Microscopy, Characterisation and Analysis, University of Western Australia. It was taken to demonstrate RECCE® 327's unique mechanism of action

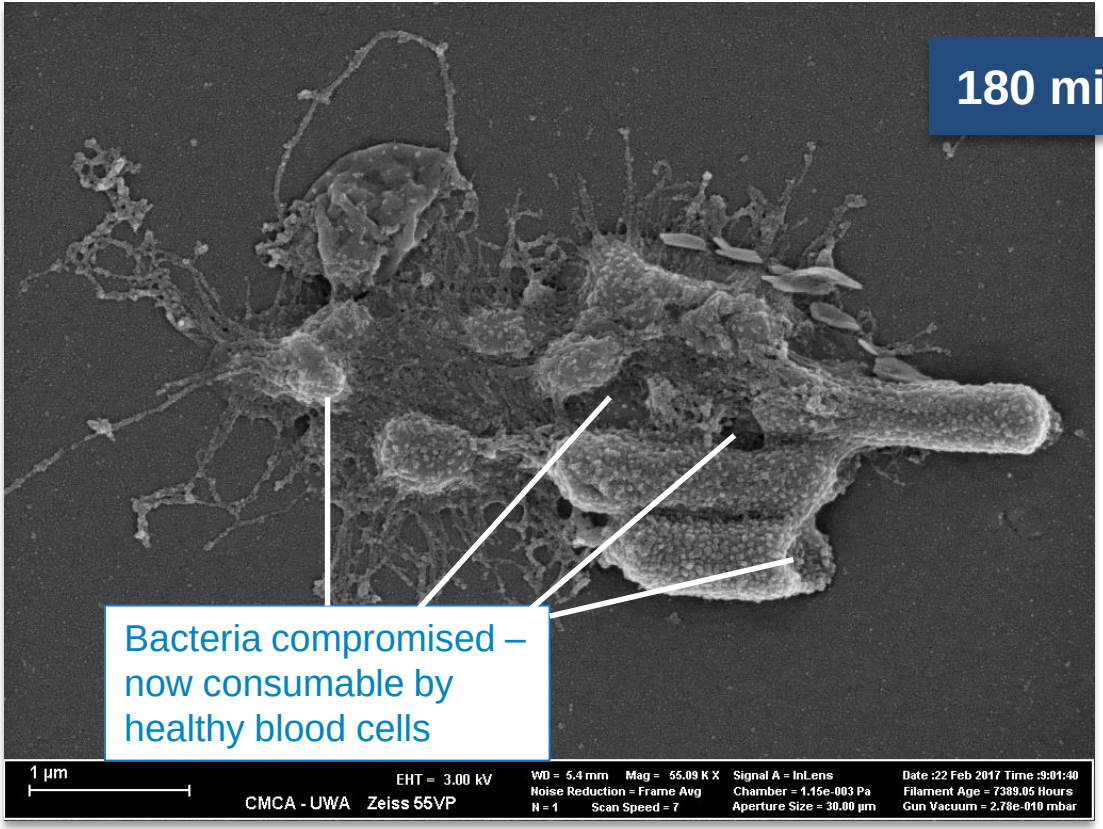
RECCE® 327 Mechanism of Action in practice



After application of RECCE® 327, the *E.coli* bacteria cell membrane begins to weaken and is disrupted

This is a high-definition electron microscope image generated in February 2017 by Dr Peta Clode and Lyn Kirilak of the Centre for Microscopy, Characterisation and Analysis, University of Western Australia. It was taken to demonstrate RECCE® 327's unique mechanism of action

RECCE® 327 Mechanism of Action in practice



E. coli bacteria cells (10e6 cfu/ml) having their outer membrane weakened – and bursting from treatment with RECCE® 327 (1000 ppm)

This is a high-definition electron microscope image generated in February 2017 by Dr Peta Clode and Lyn Kirilak of the Centre for Microscopy, Characterisation and Analysis, University of Western Australia. It was taken to demonstrate RECCE® 327's unique mechanism of action

RECCE® 327 – Safety and Efficacy (detail)

Efficacy

- Performs as a broad spectrum antibiotic
- Acts against bacteria in both normal and mutated superbug forms
- Multiple tests demonstrate efficacy against Gram-positive and Gram-negative *S.aureus* and *E.coli* including superbug forms
- Rate and MIC/MKC data demonstrates potency and broad spectrum activity against a range of bacteria
- Contains a patented polymeric structure intentionally designed to overcome the traditional challenges of bacterial mutation/resistance
- *In-vivo* (mice) study against influenza virus

Safety

- Multiple studies of toxicity in small and large animals
- Multiple tests of mutagenicity (cancer) are clear
- Numerous studies to date indicate the safety of RECCE® 327
- Is suited to administration against sepsis by intra-venous drip
- Indicate a safe therapeutic dosing window

What is Qualified Infectious Disease Product?

- *Qualified Infectious Disease Product* (QIDP) designation is awarded if FDA considers the drug to treat "*serious or life-threatening infections, including those caused by an antibacterial or antifungal resistant pathogen*."

Legal status awarded under ***US Generating Antibiotic Incentives Now (GAIN) Act***

10 years market exclusivity, starting from the date of New Drug Application approval

Anticipated further five year exclusivity under **New Chemical Entity (NCE)** policy*

Labeled for **fast track designation** – speed the FDA's review process

QIDP designated drugs to treat serious or life-threatening conditions and fill an unmet medical need

**A New Chemical Entity (NCE) can be defined as "a compound which, previously, hasn't been described in scientific literature"*

Patents and trademarks

Patent portfolio covers all key geographies, manufacturing and modes of use

Filed	Patent Family 1 Granted	Expiry	Patent Family 2/3	Expiry	Trademarks registered
Australia	✓	2028	✓	2035	✓
USA	✓	2029	✓	2035	✓
Europe	✓	2028	Pending	2035	✓
Germany	✓	2028	Pending	2035	-
Spain	✓	2028	Pending	2035	-
France	✓	2029	Pending	2035	-
United Kingdom	✓	2028	Pending	2035	-
Italy	✓	2028	Pending	2035	-
Sweden	✓	2028	Pending	2035	-
Japan	✓	2028	Pending	2035	✓
China	✓	2028	Pending	2035	✓

Patent Family 1 – granted
Unique and highly economical manufacturing process

Patent Family 2 – pending
Applications (Multi-drug delivery)

Patent Family 3 – pending
Anti-viral uses

Trademarks
RECCE® for use on pharmaceutical products and services

Manufacturing and Production

Wholly owned, automated manufacturing facility in Sydney's Macquarie Park

- Raw materials plentiful and CHEAP – few $/KG
- No expensive waste – 99.9% product yield.

- Automated manufacture process taking approximately 1 ¼ hours.

- Currently producing in volumes to support planned Phase I & II clinical trials.

- Facility built to pharmaceutical specification.

Board and management structure

Dr Graham Melrose – CEO & Chief Research Officer
BSc (Hons), PhD (UWA), MBA (Macq), FRACI, C Chem, FAICD
Founder and inventor. Former Executive Director and Chief Research at Johnson & Johnson (Aust) Pty Ltd in Sydney, with global responsibilities, particularly in Asia-Pacific

Michele Dilizia – Executive Director
BSc (Med Sci), Grad Dip Bus (Mkting), BA (Journ), GAICD, MASM
Co-inventor and qualified medical scientist; specialisation in medical microbiology and regulatory affairs

James Graham – Executive Director
BCom (Entrepreneurship), GAICD
Extensive experience in marketing, business development and commercialisation of early stage technologies with global potential

Dr John Prendergast – Non-Executive Director
BSc (Hons), MSc (UNSW), PhD (UNSW), CSS (HU)
US based, current Chairman and Co-founder of Palatin Technologies, Inc. (NYSE: PTN) and Lead Director of Heat Biologics, Inc. (NASDAQ: HTBX) – extensive experience in the international commercialisation of pharmaceutical technologies

Alistair McKeough – Company Secretary (Outsourced – **Automic Legal)**
Alistair is a qualified lawyer and Principal/Managing Director of McKeough & Whittens, Alistair has broad experience as a commercial litigator and Company Secretary to ASX Listed companies

Justin Reynolds – CFO (Outsourced - **Pitcher Partners Sydney)**
Justin is a qualified accountant and Partner of Pitcher Partners Sydney, Justin has broad experience covering all areas of accounting, taxation and assurance. Particularly, Justin's areas of expertise are business services and outsourced accounting

Arthur Kollaras – Principal Engineer
BSc Beng (Chem), PhilEng (Enviro), MIEAust, MISPE
Highly qualified in chemical engineering and microbiology, has significant experience taking a new technology concept to pilot plant and full scale FDA standards and production internationally

Dr Justin Ward – Principal Quality Chemist
BSc (Chem), PhD (Chem), MRACI, CChem
A quality control expert who has worked with leading pharmaceutical companies, he is bringing Recce's research and development, and manufacturing up to US FDA requirements

Economics of antibiotic development

A challenged business model – the antibiotic industry:

- Traditionally the more effective an antibiotic, the less likely it is to be used by clinicians who want to ‘save it’. Less use – less sales…
- Conventional antibiotics commonly suffer resistance quickly; investment in ‘new’ drug candidates a risk ROI
- Pharmco’s cutting antibiotic R&D – yet market need has never been greater

How might one ‘unlock’ the anti-infectives industry?

- A new class of antibiotics – having a unique mechanism of action that DOES NOT lose effectiveness with ‘bacterial mutation’ – superbugs – even with repeated use
- Broad spectrum capabilities against deadly bacteria, Gr +/- and superbugs
- A drug that can be administered quickly, without impractical diagnostic delays, where clinical ‘guess-work’ could be a thing of the past!

Indications suggest RECCE® 327 may just be this needed change

US Legislative Support of Antibiotic Development

- US *Right-to-Try Act* passed in May/June 2018.

- **Designed to give US patients with life threatening diseases, immediate and direct access to potentially lifesaving drugs** - that have completed Phase I clinical trials.

- New legislation mitigates possibility of weeks of procedural delay – previous legislation termed Compassionate Use.

- **Potentially resulting in improved patient outcomes**
  - With reduced risk to those providing them.
  - Potential to build earlier 'direct' distribution – diluting late-stage pharma market access model.

Global Antibiotic Market Snapshot

In 2017 the global antibiotics market generated

$42bn

with projections to reach

$50bn

by 2025.

TGA Special Access Scheme

- The Special Access Scheme (SAS) refers to arrangements that provide for the import and/or supply of an unapproved therapeutic good for a single patient, on a case by case basis.

3

categories

Category A

- Pathway that may be accessed by a prescribing medical practitioner or by a health practitioner acting on behalf of that medical practitioner, for a patient, who is seriously ill with a condition from which death is reasonably likely to occur within a matter of months, or from which premature death is reasonably likely to occur in the absence of early treatment.

Category B

- Application pathway that can be accessed by health practitioners if patients do not fit the Category A definition.

Category C

- Notification of use of specific therapeutic goods; allows certain types of health practitioners to supply therapeutic goods deemed to have an established history of use.

Australian Government

Department of Health

Therapeutic Goods Administration

RECCE® 327 development program

Recce’s technology enjoys the added opportunity of multiple markets and product categories.

Human
- Sepsis
- *H. pylori*
- *E. coli*

Animal
- *E. coli*

Antiseptic
- Hospital
- Travel
- Domestic

Preservative
- Cosmetics
- Toiletries
- Pharmaceuticals

INDICATION | DISCOVERY | PRE-CLINICAL | FIH SAFETY & EFFICACY* | REGULATORY SUBMISSION**

SEPSIS *(IV – S. AUREUS, E. COLI)*

GASTRITIS *(ORAL – H. PYLORI)*

INTESTINAL *(ORAL – E. COLI)*

recce.com.au

Estimated timelines/indications are subject to change in development plans and regulatory requirements/clarifications
FIH – First-inhuman
*Testing for RECCE ® antibiotic Safety and Efficacy
**Date submissions to regulators for permission to market

RECCE® 327 overview

Advantages unique to RECCE® antibiotics

- Avoids time-consuming diagnosis/guess work (patient survival decreases by 6% every hour left un-treated)
- Active against all tested superbug forms of bacteria
- Does not lose efficacy with repeated use
- New synthetic with **NO** superbugs against it
- New class of antibiotic
- First drug designed specifically for the treatment of sepsis

Corporate advantages unique to Recce

- Extraordinary economy of production in only a few steps
- Production method very easily varied to produce different antibiotics for specific purposes
- Many variants to the Recce technology opens the opportunities and securities of alternative uses, e.g. *H. Pylori*, *E. coli*, virus, veterinary and antiseptic markets

Investment summary

Qualified Infectious Disease Product (QIDP) Designation

Generating Antibiotics Incentive Now (GAIN) Act approved

Proprietary technology as a new class of antibiotics

Lead compound addressing the most expensive condition faced by hospitals worldwide

Early commercialisation potential

Initial focus on sepsis-potentially the first treatment for sepsis

Favourable legislative and financial landscape

Experienced commercial management and board

Creating value by meeting key milestones

Established manufacturing (volumes suitable for Ph I/II)

Thank you

James Graham
Executive Director – Recce Pharmaceuticals

+61 2 8075 4585
+61 431 978 682
james.graham@recce.com.au