Recce Pharmaceuticals
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ACN 124 849 065

# Positive Efficacy Data of Inhaled RECCE® 327 in Hospital/Ventilator-Acquired Pneumonia (HAP/VAP) in Mice Models

## Highlights:

- **RECCE® 327 (R327) demonstrated significant antibacterial activity against multidrug-resistant *Acinetobacter baumannii (A. baumannii)*, one of the most challenging and antibiotic-resistant bacteria associated with hospital-acquired infections**
- **Preliminary reductions in key pro-inflammatory indicators were observed in R327-treated groups**
- **Nebulised inhaled R327 was well tolerated and displayed significant efficacy by dramatically decreasing *A. baumannii* levels, supporting potential as a clinically relevant inhaled delivery for patients with severe pulmonary infections**
- **Meropenem, a common standard-of-care antibiotic, cannot always be effectively nebulised due to solubility constraints, a major limitation where inhalation therapy is critical**
- **The study builds on prior positive Murdoch Children's Research Institute (MCRI) preclinical results, further demonstrating the versatility of R327**

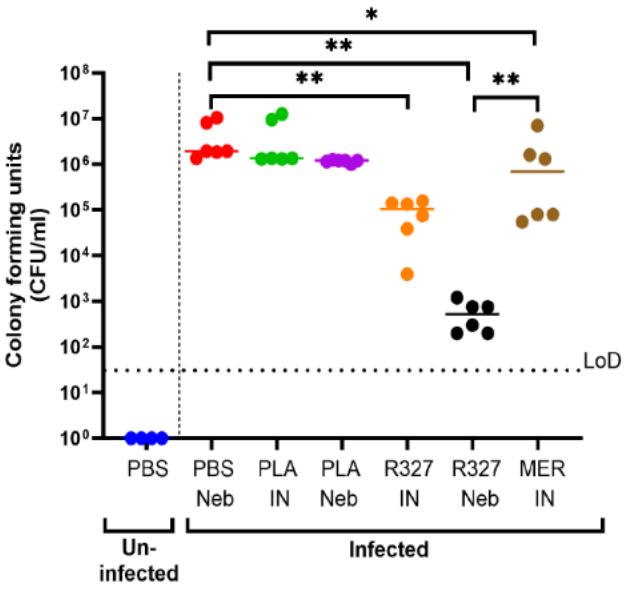
**Sydney Australia, 26 November 2025:** Recce Pharmaceuticals Limited (**ASX:RCE, FSE:R9Q**), (**Recce** or **the Company**), the Company developing a New Class of Synthetic Anti-Infectives, is pleased to report further positive preclinical data from an ongoing research program conducted by Murdoch Children's Research Institute (MCRI).

The study investigated the therapeutic efficacy of RECCE® 327 (R327) in a validated model[1] of Hospital/Ventilator Acquired Pneumonia (HAP/VAP) caused by carbapenem-resistant *Acinetobacter baumannii* (CRAB) (*A. baumannii*) – a critical global health priority pathogen. Forty female mice were assigned to seven treatment groups receiving either R327, placebo, saline, or meropenem (a last resort treatment option, which can cause severe liver injury[2]) by intranasal drops or nebulisation. Unlike meropenem, which is challenging to nebulise due to solubility limitations and can be associated with significant side effects[3], R327 can be effectively nebulised,

[1] Pubmed Central ID PMCID: PMC9493304
[2] https://pmc.ncbi.nlm.nih.gov/articles/PMC6301467/
[3] https://pmc.ncbi.nlm.nih.gov/articles/PMC7911629/

providing a major practical advantage for treating serious lung infections where direct delivery to the lungs is critical.

**CRAB burden in lungs at 24 hpi**




At 24 hours post-infection, animals treated with R327 showed a significant reduction in bacterial load in the lungs compared with untreated and placebo (PLA) groups. Both intranasal (IN) and nebulised (Neb) R327 achieved strong bacterial clearance, significantly reducing colony-forming units (CFU). **Nebulised R327 treatment resulted in a 4-log reduction, corresponding to >99.99% lower bacterial burden in the lungs.** Importantly, the nebulised R327 group achieved bacterial counts approaching the lower limit of detection (LoD), demonstrating potent local infection control. By comparison, meropenem also reduced bacterial numbers but can only be delivered intranasally due to solubility constraints, limiting its practical use.

**James Graham, Chief Executive Officer of Recce Pharmaceuticals** said "These results further validate the versatility of R327, administered as an inhaled formulation, as a potential treatment for serious, drug-resistant lung infections. Unlike other antibiotics used against resistant pathogens, such as meropenem, which cannot be nebulised due to solubility limitations, R327 can be effectively delivered as a fine mist directly to the lung, precisely where the infection occurs. The potential to administer R327 via nebuliser or ventilator provides a significant real-world advantage in hospital settings, including intensive care and emergency environments where rapid, localised treatment is critical."

**Dr Sohinee Sarkar, Lead Investigator at Recce's AIR Unit said**: "These results add to a growing body of evidence demonstrating R327's capacity to combat multidrug-resistant *A. baumannii* infections. Given the challenges in treating CRAB-related pneumonia, these findings are highly encouraging for future clinical translation."

Murdoch Children's Research Institute (MCRI) is Australia's largest child health research institute, ranked among the top three globally for research quality and impact[4]. In 2023, Recce and MCRI established the 'Anti-Infective Research' (AIR) Unit to evaluate R327 across a range of infection models relevant to clinical settings, including sepsis, wound, and respiratory applications. Data generated from these studies will contribute to formulation optimisation, dose-response modelling, and regulatory support for R327's future inhaled and topical development pathways.

This announcement has been approved for release by Recce Pharmaceuticals Board.

[4] https://www.mcri.edu.au/mcri/about-mcri

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## About Recce Pharmaceuticals Ltd

Recce Pharmaceuticals Ltd (ASX: RCE, FSE: R9Q) is developing a New Class of Synthetic Anti-Infectives designed to address the urgent global health problems of antibiotic-resistant superbugs.

Recce's anti-infective pipeline includes three patented, broad-spectrum, synthetic polymer anti-infectives: RECCE® 327 (R327) as an intravenous and topical therapy that is being developed for the treatment of serious and potentially life-threatening infections due to Gram-positive and Gram-negative bacteria, including their superbug forms; RECCE® 435 (R435) as an orally administered therapy for bacterial infections; and RECCE® 529 (R529) for viral infections. Through their multi-layered mechanisms of action, Recce's anti-infectives have the potential to overcome the processes utilised by bacteria and viruses to overcome resistance – a current challenge facing existing antibiotics.

The World Health Organization (WHO) added R327, R435, and R529 to its list of antibacterial products in clinical development for priority pathogens, recognising Recce's efforts to combat antimicrobial resistance. The FDA granted R327 Qualified Infectious Disease Product designation under the Generating Antibiotic Initiatives Now (GAIN) Act, providing Fast Track Designation and 10 years of market exclusivity post approval. R327 is also included on The Pew Charitable Trusts' Global New Antibiotics in Development Pipeline as the sole synthetic polymer and sepsis drug candidate in development.

Recce wholly owns its automated manufacturing, supporting current clinical trials. Recce's anti-infective pipeline aims to address synergistic, unmet medical needs by leveraging its unique technologies.

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