



Royal Brisbane and Women's Hospital

RBWH Research Report 2024

Herston Infectious Diseases Institute

Metro North
Health



Queensland
Government



Metro North Health acknowledges the Traditional Custodians of the Land upon which we live, work and walk, and pay our respects to Elders both past and present.

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For more information, contact:

RBWH Research Services, Metro North Hospital and Health Service, Block 7, Level 8, Herston QLD 4006
email RBWH_Research_ESO@health.qld.gov.au

An electronic version of this document is available at <https://metronorth.health.qld.gov.au/rbwh/research>.

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Herston Infectious Diseases Institute

Research highlights

The Herston Infectious Diseases Institute (HeIDI) aims to deliver innovative infectious diseases research, that achieves clinical excellence in the surveillance, diagnosis and management of serious infections that impact on our community, prevents and monitors healthcare-associated infections, and promotes partnerships between industry, government and academic institutions.

HeIDI supports infectious diseases research within Metro North through various programs. The Drake Infectious Diseases Fellow Program offers dedicated research time for medical, nursing, and allied health clinicians. The program helps them develop as clinician researchers and provides a pathway to gain research qualifications. A number of Fellows have successfully obtained further competitive research funding to support their work beyond the initial fellowship period. In an effort to boost infectious diseases research capacity across Metro North, Research Coordinator support is provided to facilities across the HHS. This support has allowed for matched funding from facilities to be secured and resulted in the commencement of new research projects. In late 2024, we introduced two new grant rounds: the HeIDI Early Career Researcher Enabling Grant and the HeIDI Collaborative Research Grant. Outcomes from these grants will be featured in future reports.

The HeIDI Annual Forum provides updates to clinicians, researchers and policy makers on current clinical practice, technological advancements, and the research landscape in infectious diseases. The fourth Annual Forum, held on 7th and 8th November 2024, covered topics such as trials, antimicrobial stewardship, healthcare-acquired infections, digital innovation, and diagnostics. We were pleased to host a number of national and international experts across the two days, with planning for the 2025 event already underway.

In 2024, HeIDI strengthened its partnerships, starting new collaborative work with the Queensland Infection Prevention and Control Unit (QIPCU). Together, we completed a Delphi study to develop standardized healthcare-associated infection (HAI) surveillance definitions for Queensland Health, now implemented statewide. Future projects to support infection prevention and control in Queensland are planned for 2025 and beyond. Our collaboration with CSIRO also expanded, with the launch of the One Health Hospital AMR and AMR Digital Twin project. This innovative project employs a cross-sectoral approach to address antimicrobial resistance (AMR) in healthcare, co-designed by HeIDI and CSIRO.

Successful Research Higher Degree candidates in 2024

Name	Title	Month Completed	Affiliated University	Summary
Dr Philip Selvy (PhD)		2024	The University of Queensland	
Dr Gene Chai (PhD)		2024	The University of Queensland	
Dr Puteri Zamri (PhD)		2024	The University of Queensland	
Dr Anna Maria Peri (PhD)	Novel technologies for the diagnosis of bloodstream infection: performance and clinical application	December 2024	The University of Queensland	Bloodstream infection is associated with high mortality and requires prompt management. The gold standard for the diagnosis of bloodstream infection is represented by the blood culture which suffers from limitations, including limited sensitivity and long turnaround times. Novel technologies are emerging able to overcome some of the blood culture limitations but data about their performance in clinical settings as well as their clinical impact are very limited. My PhD has focused on investigating accuracy as well as clinical and prognostic impact of novel technologies for the diagnosis of bloodstream infection and sepsis. It resulted in 9 first author publications of which three of them on high impact journal including Clinical Infectious Diseases and Clinical Microbiology and Infection.

Name	Title	Month Completed	Affiliated University	Summary
Angelica Tan (PhD)	Diagnostic approaches to the detection of zoonotic <i>Plasmodium knowlesi</i> infections and the role of neutrophil activation in severe malaria	November 2024	Charles Darwin University	The zoonotic malaria parasite <i>Plasmodium knowlesi</i> is an emerging public health problem in South East Asia, and prevalence is likely underestimated due to difficulties with microscopic diagnosis. This project evaluated diagnostic methods for detection of <i>P. knowlesi</i> malaria, including rapid diagnostic tests, nucleic acid-based detection methods, and a novel heamozoin-based magneto-optical detection platform. Finally, the project also evaluated the role of neutrophil activation in pathogenesis of severe <i>knowlesi</i> malaria.

Research Awards and Achievements

Recipient (RBWH staff in bold)	Award	Event
Dr Karen Davies	2024 UQCCR Clinician Researcher of the Year	University of Queensland Centre for Clinical Research, Faculty of Medicine
Dr Karen Davies	Finalist – Professor Joan Webster Nursing and Midwifery Award	2024 Research Excellence Awards (Metro North Health)
Dr Jessica Schults	Early Career Researcher of the Year	University of Queensland Centre for Clinical Research, Faculty of Medicine
Dr Jessica Schults	Early Career Research Excellence Award	Faculty of Health and Behavioural Sciences
Dr Josephine Lovegrove	Deeble Institute for Health Policy Research: Deeble Summer Research Scholarship 2024	

Research Grants

Investigator Names (RBWH staff in bold)	RBWH Departments / Research Groups	Research Project Title	Granting Body	Total Awarded (whole all years)	Length of Awards in years and years active
Karen Davies	Herston Infectious Disease Institute (HeIDI), Clinical Pharmacology	Medication Administration Evaluation and Feedback Tool (MAEFT)	MN HeIDI Research Fellowship	\$514,796	1 year, 2024
Karen Davies	Herston Infectious Disease Institute (HeIDI), Clinical Pharmacology	Implementation of the Medication Administration Evaluation and Feedback Tool (MAEFT): Knowledge Translation	QH Clinician Research Fellowship	\$199,202	1 year, 2024
Karen Davies	Herston Infectious Disease Institute (HeIDI), Clinical Pharmacology	IMES RBWH Medication Administration Evaluation and Feedback Tool (MAEFT): Implementation	MN SWIFT Grant	\$24,855	1 year, 2024
Karen Davies	Herston Infectious Disease Institute (HeIDI), Clinical Pharmacology	IMES RBWH Medication Administration Evaluation and Feedback Tool (MAEFT): Implementation	COH Kick Start Grant	\$11,947	1 year, 2024
Karen Davies	Herston Infectious Disease Institute (HeIDI), Clinical Pharmacology	Digital Evaluation and Implementation of the Medication Administration Evaluation and Feedback Tool (MAEFT) at STARS	RBWH Foundation Grant	\$48,198	1 year, 2024

Investigator Names (RBWH staff in bold)	RBWH Departments / Research Groups	Research Project Title	Granting Body	Total Awarded (whole all years)	Length of Awards in years and years active
Krispin Hajkowicz , Jayesh Dhanani, Kym Lowry, Patrick Harris , Andrew Redmond, Jason Roberts , Rhys Izuagbe, Timothy Kidd, Jessica Schults	Infectious Disease, HeIDI	Right First Time – Ultra-Rapid Infection Diagnosis for Critically Ill patients.	RBWH – Grant Round 2 – Research Funds	\$46,202	ongoing 2024-
Lovegrove J , Rickard C , Havers S , Schults J	HeIDI	Safe PIVCs across Metro North and beyond – Foundation for a Clinical Quality Registry	HeIDI Early Career Researcher Enabling Grant	\$14,488	1 year, 2024-2025
Krispin Hajkowicz	HeIDI, Infectious Diseases, Haematology	Rapid Clinical Genomics to Transform Diagnosis of Febrile neutropenia in People with a Haematological Malignancy	Queensland Health Targeted Clinical Research Fellowship	\$124,932.00	1 year, 2024-2025
Krispin Hajkowicz , Jayesh Dhanani , Kym Lowry, Patrick Harris , Andrew Redmond , Jason Roberts , Rhys Izuagbe, Timothy Kidd, Jessica Schults	HeIDI, Infectious Diseases, Intensive Care Unit	Right First Time - Ultra-Rapid Infection Diagnosis for Critically Ill Patients in RBWH ICU	RBWH Foundation	\$46,202.89	1 year, 2024-2025
Bridget Barber	Infectious Diseases	Malaria volunteer infection studies for the advancement of antimalarial therapeutics	NHMRC (EL2 Investigator Grant)	\$1,345,834	5 years, 2023–2027
Bridget Barber	Infectious Diseases	Development of a pilot Plasmodium knowlesi volunteer infection study	RBWH Foundation	\$38,000	1 year, 2024
Gail Matthews, Nila Dharan, Anthony Kelleher, Virginia Wiseman, Stuart Turville, Steven Tong, Bridget Barber , Gregory Dore, James McMahon, Claudia Dobler, Benjamin Rogers, Susan Maddocks, Mark Boyd, Janine Trevillyan, James Robinson	Infectious Diseases	Strategies and Treatments for Respiratory Infections and Viral Emergencies (STRIVE)	NHMRC (MRFF International Clinical Trial Collaborations)	\$1,993,166	3 years, 2023-2026
Freya Fowkes, Leanne Robinson, Julie Simpson, Ric Price, Peter Gethring, Alyssa Barry, James Beeson, Kamala Thriemer, Bridget Barber , Ivo Mueller	Infectious Diseases	Malaria Elimination Centre for Research Excellence (CRE)	NHMRC (Centre for Research Excellence Grants)	\$3,000,000	5years, 2024–2028
Melissa Kapulu, Philip Bejon, Kevin Marsh, Faith Osier, Francis Ndungu, Abdirahman Abdi, Bridget Barber , James McCarthy	Infectious Diseases	Experimentally induced blood-stage malaria in Kenyan adults: understanding disease mechanisms and protection in the context of background immunity	UK Medical Research Council Research	\$3,840,234	4 years, 2021–2024

Investigator Names (RBWH staff in bold)	RBWH Departments / Research Groups	Research Project Title	Granting Body	Total Awarded (whole all years)	Length of Awards in years and years active
Jason Roberts	HeIDI	Optimizing antibiotic dosing in the Staphylococcus aureus Network Adaptive Platform trial (O-SNAP)	Herston Infectious Diseases Institute (HeIDI), Collaborative Research Grants 2024	\$70,000	1 year, 2024–2025
Schembri M, Harris P, Henden A, Chan W, Burke A, Divithotawela C, Forde B, Schlebusch S, Phan MD, Edmunds K, Krause L, Jennison A, Roberts JA	HeIDI	Unlocking the gut microbiome to track the spread of AMR genes and pathogens	2023 Medical Research Future Fund (MRFF) Global Health Grant Initiative	\$1,990,643	5 years, 2024–2028
Evans I, Smith D, Burke A, Roberts JA , Hernandez-Mitre MP	HeIDI	A population pharmacokinetic study of elexacaftor, tezacaftor and ivacaftor (Trikafta) in patients with Cystic Fibrosis with the development of therapeutic drug monitoring targets	The Prince Charles Hospital Innovation Grant 2023	\$97,506.15	2 years, 2024- 2025
Wood E, McQuilten Z, Petrie D, Bielby L, Fanning L, Burgner D, Roberts JA , van der Walt A, Heiss L, Daly J.	HeIDI	OPTimising Immunoglobulin Management in Australia. (NHMRC APP2024876)	National Health and Medical Research Council of Australia Centre for Research Excellence Grant	\$2,572,000	5 years, 2024–2028
Roberts JA , Alffenaar JW, Slavin M, Parker S, Lindsay J, Chatfield M, Irwin A, Cunich M, Roberts N, Selby P, Nakagaki M , Lai T, Legg A , Ungerer J.	HeIDI	Pharmacogenomics for better treatment of fungal infections in cancer: The PRAGMATIC Study	2022 Medical Research Future Fund (MRFF) 2022 Quality, Safety and Effectiveness of Medicine Use by Pharmacists	\$1,499,982	4 years, 2023–2026
Webb S, McArthur C, Totterdell J, Venkatesh B, Nichol A, McKenzie A, Tong S, Higgins A, Hammond N, Denholm J, Davis J, Roberts JA , McQuilten Z, Burrell A, Cheng A	HeIDI	A coordinated multiplatform randomised trial for hospitalised patients with COVID-19	2021 Medical Research Future Fund (MRFF) COVID-19 Treatment Access and Public Health Activities	\$3,997,914.20	5 years, 2023–2027
McQuilten Z, Petrie D, Hawkes E, Reynolds J, Crispin P, Fanning L, Weinkove R, Spencer A, Morrissey CO, Paterson DL, Wood E, Roberts JA, Stanworth S, Mulligan S, Opat S	HeIDI	Generating evidence to improve use of immunoglobulin replacement to reduce infections in blood cancers: The RATIONAL Platform Trial	2021 Medical Research Future Fund (MRFF) Optimising the Clinical Use of Immunoglobulins	\$3,984,139	5 years, 2023–2027

Investigator Names (RBWH staff in bold)	RBWH Departments / Research Groups	Research Project Title	Granting Body	Total Awarded (whole all years)	Length of Awards in years and years active
Roberts JA , Nguyen A, Cotta MO, Ireland D, McCarthy K , Horvath R, Legg A	HeIDI	Development and clinical integration of a novel precision dosing software application to improve antimicrobial dosing in critically ill patients	Herston Infectious Diseases Institute (HeIDI) and CSIRO IDR and AMR Mission Affiliated Project Scheme	\$171,381	4 years, 2022–2025
Roberts JA.	HeIDI	Translating precision antibiotic dosing into better outcomes for severe infections	National Health and Medical Research Council of Australia Investigator Grant – Leadership 2	\$2,772,570	5 years, 2022-2026
Roberts JA , Slavin M, Paterson DL, Comans T, Lipman J , Landersdorfer C, Joynt G, Bellomo R, Clark J, Parker S.	HeIDI	Centre of Research Excellence - REduce the burden of antimicrobial reSistance through oPtimal, perSONalised Dosing (RESPOND)	National Health and Medical Research Council of Australia Centre for Research Excellence Grant	\$2,500,000	6 years, 2021–2026
Roberts JA	HeIDI	Queensland Advancing Clinical Research Fellowship	Queensland Health	\$499,950	5 years, 2020–2024
Rickard C , Lovegrove J , Harris P , Martin A.	HeIDI	Reducing blood culture contamination with the use of a needle-less blood draw device (PIVO Pro): An adaptive group sequential randomized controlled trial (The PIVO Trial)	BD Investigator-initiated grant	Commercial in confidence	3 years, 2024-2026
Rickard C	HeIDI	Pre-conference workshop. Australasian College for Infection Prevention & Control	Solvantum Educational sponsorship	\$10,000	1 year, 2024
Rickard C	HeIDI	The IVCare adaptive platform trial: Towards zero bloodstream infections in IV catheters	NHMRC Investigator grant	\$2,382,170	5 years, 2023-2027
Warburton-Egerton D.... Rickard C	HeIDI	Just Say No to the Just in Case Cannula: An Implementation Science Trial with Roadmap for National Roll Out	MRFF Clinical Trials Activity	\$2,895,091	5 years, 2023-2027
Milford E.... Rickard C	HeIDI	The Threshold for Platelets study: a prospective randomised trial to define the platelet count at which critically ill patients should receive a platelet transfusion prior to an invasive procedure	MRFF International Clinical Trials	\$1,762,384	5 years, 2024-2028
Chaboyer W.... Rickard C	HeIDI	Centre of Research Excellence in Wiser Wound Care	NHMRC Centres of Research Excellence Scheme	\$2,500,000	5 years, 2020-2025
Rickard C , Schults J	HeIDI	Statewide Healthcare Acquired Infection Data Connectivity	Clinical Excellence Queensland Statewide Clinical Networks Project Funding	\$337,197	4 years, 2023-2027

RBWH Department / Research Group Led Research Activity

Lead Investigator Name (RBWH staff and consumers in bold)	Other Study Investigators (RBWH staff and consumers in bold)	Research Project Title	Consumer involvement	Number of RBWH Patients Recruited
Dr Anna Maria Peri	Prof David Paterson, Dr Andrea Henden, Dr Glen Kennedy, Dr Patrick Harris	Performance of emerging techniques for the diagnosis of severe infections in neutropenic patients with haematological malignancies	3	63
Dr Anna Maria Peri	Dr Patrick Harris, Dr Krispin Hajkowicz, Dr Julian Williams, Dr Andrea Henden, Dr Glen Kennedy, Dr Kay Ramsay, Dr Chitra Ravi, Dr Brian Forde	Improved pathogen and antimicrobial resistance diagnostics in bloodstream infection and sepsis using a metagenomic approach (the META Study)	3	Not yet recruiting
Karen Davies	Peter Donovan, Ian Coombes, Samantha Keogh, Jed Duff, Karen Hay, Dale Trevor	Medication Administration Evaluation and Feedback Tool (MAEFT): Knowledge Translation	2	7 MN 1 QH 7 USA (Facilities)
Karen Davies	Peter Donovan, Ian Coombes, Samantha Keogh, Jed Duff, Karen Hay, Dale Trevor	MN Implementation of the Medication Administration Evaluation and Feedback Tool (MAEFT): Knowledge Translation	2	7 (MN Facilities) 27 CKW 23 TPCH 85 Brighton 229 RBWH (Nurses)
Karen Davies	Peter Donovan, Ian Coombes, Samantha Keogh, Jed Duff, Karen Hay, Dale Trevor	Implementation of the Medication Administration Evaluation and Feedback Tool (MAEFT): Knowledge Translation – Internal Medicine Service (IMS)	2	229 (nurses)
Karen Davies	Fanuel Garayi, Shannaen Gilbert, Michelle Crawford	Implementing the Medication Administration Evaluation & Feedback Tool (MAEFT) into Practice - COH	3	85 (nurses)
Karen Davies	Peter Donovan, Ian Coombes, Samantha Keogh, Jed Duff, Nicola Harper, Natasha Roberts, Melanie Duncan, Dale Trevor.	Digital Evaluation and Implementation of the Medication Administration Evaluation and Feedback Tool (MAEFT) at STARS	2	Not yet commenced (nurses)
Jessica Schults	Kate McCarthy	Co-designing a clinical checklist with clinical end users	1	N/A
Jessica Schults	Kevin Laupland, Claire Rickard, Clair Sullivan, Patrick Harris, Khanna Sankalp	Prediction of catheter associated bloodstream infection in critically ill adults	2	N/A
Jessica Schults	Claire Rickard, Sally Havers, Alison Pickering	Strengthening Hospital Associated Surveillance in QLD: A state-wide consensus project	2	N/A
Jessica Schults	Claire Rickard, Sally Havers	Healthcare-associated infection tracking and connectivity	0	N/A

Lead Investigator Name (RBWH staff and consumers in bold)	Other Study Investigators (RBWH staff and consumers in bold)	Research Project Title	Consumer involvement	Number of RBWH Patients Recruited
Josephine Lovegrove	Claire Rickard, Jessica Schults, Gillian Ray-Barruel, Sally Havers, Alice Bhasale, Samantha Keogh , Amanda Ullman, Jonathan Vico Da Silva, Stephanie Hall, Jemima Fritts, Sarah Smith, Brodie Murphy, Claire Reddy, Luke Shaw, Samantha Anderson, Suzanne Russell, Constance Grey, Judith Jones, Tracy Zammit, Anita Tyrell, Matthew McDonnell, Tricia Kleidon, Paul Simpson, Barbara Hewer , Janice Geary, Janine Carrucan, Linton Harriss, Aida Emmanuelx	Mapping clinical practice and policy to the 'Management of Peripheral Intravenous Catheters Clinical Care Standard': A multi-site point prevalence study	2	100
Krispin Hajkowicz	Colleen Lau, Kym Lowry, Daisy Lindsay, Georgina Peacock, Lynn Murray	An Observational Study of Epidemiology Burden of Disease and Genomics of Respiratory Syncytial Virus Infection in Older Adults of Queensland, Australia (RSV BoD-Au)	3	94
Krispin Hajkowicz	Edward Holmes, Andrew Redmond, Tess Evans , Andreas Suhrbier, Wilson Nguyen, Daniel Rawle, Antiopi Varelias, Adam Irwin, Mariana Pitombeira Liborio, Tim Baird, Jayesh Dhanani, Hannah Peach, Kate McCarthy, Bridget Barber, Paul Chapman, Hugh Wright, Sumudu Britton, Alexandra Stewart, Anna Hume , Kym Lowry, Brian Forde, Patrick Harris , David Whiley, Andrew Burke, Kanthi Vermuri, Chandima Divithotawela, Wandy Chan, Anthony Nguyen, Bevan Koopman, Jinghui Liu, Md Zohorul Islam	Defining the Infectome in Clinical Infectious Diseases Through Molecular and Metagenomic Analysis: Developing capability in diagnostic, clinical and public health applications for molecular, metagenomic and metatranscriptomic analysis for infectious diseases to optimise clinical and population outcomes	3	49
Bridget Barber		A controlled human malaria infection study to evaluate the antimalarial activity of MK-7602 against Plasmodium falciparum blood stage infection in healthy adult participants	3	N/A
Bridget Barber		An open label phase 1b study to characterise the pharmacokinetic/pharmacodynamic relationship and safety of MMV367 in healthy adult participants experimentally infected with blood stage Plasmodium falciparum	3	N/A
Bridget Barber		A pilot study to characterise the in vivo safety and infectivity of an in vitro expanded Plasmodium knowlesi YH1-HS master cell bank in healthy participants	3	N/A

Lead Investigator Name (RBWH staff and consumers in bold)	Other Study Investigators (RBWH staff and consumers in bold)	Research Project Title	Consumer involvement	Number of RBWH Patients Recruited
Bridget Barber	Christian Engwerda, Michelle Boyle	A randomised, double blind, placebo-controlled trial to evaluate the safety, tolerability and anti-parasitic immunity boosting activity of ruxolitinib when co-administered with artemether-lumefantrine in healthy volunteers with Plasmodium falciparum Induced Blood Stage Malaria	3	N/A
Amy Legg	Joshua Davis, Steven Tong, Rinaldo Bellomo, Jason Roberts , Alan Cass, Marc Scheetz, Jane Davies, Marjoree Sehu, Owen Robinson, Kyle Alcorn, Kater Garnham, Bridget Barber	SNAP Sub Study: SNAPPER: SNAP prospective evaluation of renal effects Staphylococcus aureus Network Adaptive Platform (SNAP) trial	3	2

Collaborative Research Activity Involving RBWH Department / Research Group

Lead Investigator Name (RBWH staff and consumers in bold)	Other Study Investigators (RBWH staff and consumers in bold)	Research Project Title	Consumer involvement	Number of RBWH Patients Recruited
Josh Davis and Steven Tong	Bridget Barber, Andrew Redmond, Krispin Hajkowicz, Paul Chapman, Julian Harris, Lawrence Huang, Jason Roberts	S. aureus Network Adaptive Platform Trial (SNAP)	3	142
Gail Matthews	Bridget Barber, Krispin Hajkowicz	Strategies and Treatments for Respiratory Infections and Viral Emergencies (STRIVE)	3	1
Victoria Hall	Ben Teh, Krispin Hajkowicz	A multicentre national study of respiratory virus infection in patients with haematological malignancy (The RUSTIC Study)	3	6
Johan Maertens	Krispin Hajkowicz	A Phase III, adjudicator-blinded, randomised study to evaluate the efficacy and safety of treatment with olorofim versus treatment with AmBisome followed by standard of care (SOC) in patients with invasive fungal disease (IFD) caused by Aspergillus species	3	2
Monica Slavin	Krispin Hajkowicz	Long-Term follow-up of Study 32: an open-label single-arm Phase IIb study of F901318 as treatment of invasive fungal infections due to Lomentospora prolificans, Scedosporium spp., Aspergillus spp., and other resistant fungi in patients lacking suitable alternative treatment options	3	2
James McMahon	Krispin Hajkowicz, Michael Lane	BOOST-IC is an adaptive randomised clinical trial to assess the immunogenicity and safety of additional COVID-19 vaccine doses in immunocompromised people including people with HIV, solid organ transplant recipients to those with haematological malignancies	3	7
	Michael Nissen, Michael Lane, Krispin Hajkowicz	Phase 2b, randomized, controlled, open-label study to evaluate the immune response and safety of the RSVPreF3 OA investigational vaccine in adults (≥ 18 years of age) when administered to lung and renal transplant recipients comparing 1 versus 2 doses and compared healthy controls (≥ 50 years of age) receiving 1 dose.	3	13

Authors

Investigator	ORCID ID		
Jason Roberts	https://orcid.org/0000-0001-6218-435X	Karen Davies	https://orcid.org/0000-0003-3510-5227
Anna Maria Peri	https://orcid.org/0000-0002-7704-4728	Sally Havers	https://orcid.org/0000-0001-6362-6412
Jessica Schults	https://orcid.org/0000-0002-5406-9519	Krispin Hajkowicz	https://orcid.org/0000-0001-6990-0486
Gillian Ray-Barruel	https://orcid.org/0000-0001-8875-7523	Josephine Lovegrove	https://orcid.org/0000-0003-1466-2374
Claire Rickard	https://orcid.org/0000-0002-6341-7415	Bridget Barber	https://orcid.org/0000-0003-1066-7960
Daner Ball	https://orcid.org/0000-0002-9438-5428		

Publications in 2024

Journal Articles (RBWH staff or consumers in bold)

Ngouni Pokem P, St  phenne X, Liu X, Parker SL, Van der Linden D, Godet ML, Wijnant GJ, Chatzis O, Houtekie L, Haenecour A, Sokal E, **Roberts JA**, Elens L, Van Bambeke F. Population pharmacokinetics and dosing simulations of temocillin in liver-transplanted paediatric patients: a prospective, open-label, non- randomized study. Clin Microbiol Infect. 2024 Dec 27:S1198-743X(24)00601-3. doi: 10.1016/j.cmi.2024.12.015

Kong D, **Roberts JA**, **Lipman J**, Taccone FS, Cohen-Wolkowicz M, Sime FB, Tsai D, De Cock PAJG, Jaruratanasirikul S, Dhaese SAM, Udy AA, Felton TW, Michelet R, Thibault C, Koomen JV, Eleveld DJ, Struys MMRF, De Waele JJ, Colin PJ; PIP/TAZ Consortium. A Pooled Pharmacokinetic Analysis for Piperacillin/Tazobactam Across Different Patient Populations: From Premature Infants to the Elderly. Clin Pharmacokinet. 2024 Dec 25. doi: 10.1007/s40262-024-01460-6

Kumta N, Heffernan AJ, Cotta MO, Liu X, Parker S, Wallis S, **Livermore A**, Starr T, Wong WT, Joynt GM, **Lipman J**, **Roberts JA**. Population pharmacokinetics of piperacillin-tazobactam in the plasma and cerebrospinal fluid of critically ill patients. Antimicrob Agents Chemother. 2024 Dec 19:e0060124. doi: 10.1128/aac.00601-24

Abdul-Aziz MH, Diehl A, Liu X, Cheng V, Corley A, Gilder E, Levkovich B, McGuinness S, Ordonez J, Parke R, Pellegrino V, Wallis SC, Fraser JF, Shekar K, **Roberts JA**. Population pharmacokinetics of caspofungin in critically ill patients receiving extracorporeal membrane oxygenation-an ASAP ECMO study. Antimicrob Agents Chemother. 2024 Dec 18:e0143524. doi: 10.1128/aac.01435-24

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Murray F, Yoo O, Brophy-Williams S, Rawlins M, Wallis SC, **Roberts JA**, Raby E, Salman S, Manning L. Safety, tolerability and pharmacokinetics of subcutaneous cefazolin as an alternative to intravenous administration. J Antimicrob Chemother. 2024 Dec 13:dkae397. doi: 10.1093/jac/dkae397

Barton G, **Rickard CM**, **Roberts JA**. Considerations for β -lactam antimicrobial continuous infusion. Authors' reply to Massart et al. and Marzaroli et al. Intensive Care Med. 2024 Dec 12. doi: 10.1007/s00134-024-07724-w

Wale YM, **Roberts JA**, Sime FB. Dynamic *In Vitro* PK/PD Infection Models for the Development and Optimisation of Antimicrobial Regimens: A Narrative Review. Antibiotics (Basel). 2024 Dec 10;13(12):1201. doi: 10.3390/antibiotics13121201

Jackson D, Ulldemolins M, Liu X, Harris C, Tognolini A, Wallis SC, Sumi C, Parker SL, **Eley V**, **Roberts JA**. Continuous infusion of piperacillin/tazobactam optimizes intraoperative antibiotic exposure in patients undergoing elective pelvic exenteration surgery. Antimicrob Agents Chemother. 2024 Dec 5;68(12):e0111624. doi: 10.1128/aac.01116-24

Naicker S, **Roberts JA**, Cheng V, Parker SL, Seaton RA, Gilchrist M, Sime FB. A review of antimicrobial stability testing guidance for outpatient parenteral antimicrobial therapy programmes: is it time for global harmonization of testing frameworks? JAC Antimicrob Resist. 2024 Nov 28;6(6):dlae186. doi: 10.1093/jacamr/dlae186

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Mukhiya R, Loughland JR, Chan J, Labastida Rivera F, Andrew D, Beeson JG, McCarthy JS, **Barber BE**, Lopez JA, Engwerda C, Boyle JM. Latent cytomegalovirus is associated with reduced functional antibody induction following *Plasmodium falciparum* infection. *eBioMed* 2024; 109:105419

Cao P, Kho S, Grigg MJ, **Barber BE**, Piera KA, William T, Poespoprodjo JR, Kyung Jang I, Simpson JA, McCaw J, Anstey NM, McCarthy JS, Britton S. Characterisation of *Plasmodium vivax* lactate dehydrogenase dynamics in *P. vivax* infections. *Communications Biology* 2024; 7:355

Eustace M, Thean LJ, Hovelroud RA, **Barber BE**. An unusual case of primary pituitary abscess due to *Corynebacterium pseudodiphtheriticum*. *Eur J Clin Microbiol Infect Dis* 2024; 44:453

Books (RBWH staff or consumers in bold)

Anstey NM, **Barber BE**, William T. Knowlesi malaria. Chapter in: Up to Date, 2017 – current.

Book Chapters (RBWH staff or consumers in bold)

McCormack E, **Ray-Barruel G**. Chapter 8: Growth following trauma: A nursing perspective. In Trauma, Resilience, and Posttraumatic Growth in Frontline Personnel. Eds. J Shakespeare-Finch, PJ Scully & D Bruenig. 2024. Routledge. <https://doi.org/10.4324/9781003292807-10>

Keynote or Plenary Lectures given in 2024

Date	Title
10 – 12 April 2024	Schults J, “Machine learning in the intensive care unit” (Invited plenary). ANZICS/ACCCN Intensive Care Annual Scientific Meeting, Brisbane, Australia
10 – 12 April 2024	Schults J, “Ventilator associated infections in the PICU” (Invited speaker). ANZICS/ACCCN Intensive Care Annual Scientific Meeting, Brisbane, Australia
10 – 12 April 2024	Rickard C, “Advances in Intravenous Catheter Care” (Invited speaker). ANZICS/ACCCN Intensive Care Annual Scientific Meeting, Brisbane, Australia
April 2024	Roberts JA, “Antibiotic PK/PD in ICU”. II Course: PK/PD Applications in Antimicrobial Therapy. Barcelona, Spain
April 2024	Roberts JA, “Antimicrobial dose optimization in patients with severe infections”. Interdisciplinary Symposium: modern understanding and approach to severe infections, Aarhus, Denmark
April 2024	Roberts JA, “The foundation and progression of BLING: Continuous infusions of beta-lactams in sepsis”. Interdisciplinary Symposium: modern understanding and approach to severe infections, Aarhus Denmark
April 2024	Roberts JA, “Emerging role of dosing software for managing critically ill patients”. Australian New Zealand Intensive Care Society Annual Scientific Meeting, Brisbane
01/05/2024	Rickard C, “Collaboration vs CLABSI” (Invited speaker). Renal Society of Australasia/Australia New Zealand Society for Nephrology Quality and Safety Workshop, Virtual
June 2024	Rickard C, “The IVCare adaptive platform trial” (Invited speaker). BEAT CKD (Chronic Kidney Disease) Seminar
19/07/2024	Rickard C, “Panel Discussion - Implementation of the BLING III Trial results”. NHMRC Centre of Research Excellence (CRE) RESPOND Forum 2024, Brisbane, Australia
25/07/2024	QSAMSP and HeIDI Joint Education Seminar. Staphylococcus aureus: Current Knowledge Gaps, Research Needs, SNAP and Sub-Studies, Brisbane, Australia. HeIDI hosted event
27 – 30 September 2024	Ray-Barruel G, “The I-DECIDED device assessment and decision tool: Results from a multi-center time-series study”. Association for Vascular Access ASM, Denver, USA

27 – 30 September 2024	Ray-Barruel G, "Implementation of the I-DECIDED tool in nursing practice: Challenges and facilitators". Association for Vascular Access ASM, Denver, USA
September 2024	Rickard C, "Vascular Access in the Village" (Invited speaker). Australia and New Zealand Transplant and Cellular Therapies Meeting
08/10/2024	Roberts JA, "Meet the Editors: Why should I bother to publish" Debate Moderator. ESICM LIVES 2024, Barcelona, Spain
09/10/2024	Roberts JA, "My obese septic patient does not respond to anti-microbial therapy: What should be considered?" Debate. ESICM LIVES 2024, Barcelona, Spain
16/10/2024	Rickard C, "Vascular Access: The obvious choice for quality improvement and research" (Keynote speaker). Caboolture Kilcoy Woodford Research Symposium 2024, Caboolture, Australia
October 2024	Ray-Barruel G, "I-DECIDED: A structured approach to device assessment and management". Darling Downs Health International Infection Prevention Week, Toowoomba, Australia
October 2024	Rickard C, "Management of PIVCs- iDECIDED" (Invited speaker). MRFF 'Just say no to the just-in-case-cannula' Project, Monash Health
07/11/2024	2024 HeIDI Annual Forum, Brisbane, Australia. HeIDI hosted event
07/11/2024	2024 Lipman Oration, Brisbane, Australia. HeIDI hosted event
08/11/2024	Clinical Metagenomics Workshop, Brisbane, Australia. HeIDI hosted event
08/11/2024	Smart Management of PIVCs: Strategies for Success, Brisbane, Australia. HeIDI hosted event
17 – 20 November 2024	Schults S, "Bloodstream infection definitions: Achieving statewide consensus" (Invited speaker). Australasian College for Infection Prevention and Control (ACIPC) Annual Scientific Meeting, Melbourne, Australia
28/11/2024	Davies K, "What Are the Different Central Access Devices in OPAT/HITH Programs? Pros and Cons". NHMRC Centre of Research Excellence (CRE) RESPOND QPAT/HITH Masterclass II: Peripheral Intravenous Use of Elastomerics in Hospital in the Home, Brisbane, Australia
November 2024	Ray-Barruel G, "Handheld ultrasound devices for peripheral intravenous cannulation: A scoping review". Australasian Society for Ultrasound in Medicine conference, Brisbane, Australia.