

**National Centre for Antimicrobial Stewardship  
A One Health Approach  
2016 Annual Forum**

Wednesday 9<sup>th</sup> November 2016  
Auditorium, Ground floor Doherty Institute



*Program schedule*

0930		Registration	
0945	1000	Welcome	<b>Laureate Professor Peter Doherty</b> Department of Microbiology and Immunology, Uni Melb, at the Peter Doherty Institute for Infection and Immunity (PDI)
1015	1040	The Year in Review in AMS	<b>Professor Karin Thursky</b> Director NCAS, Royal Melbourne Hospital at the PDI & Department of Medicine, Uni Melb
1040	1105	Antimicrobial use in animals in Australia – what do we know?	<b>Professor Glenn Browning</b> Veterinary and Agricultural Sciences, Uni Melb
1105	1130	Laboratory surveillance of AMR The Victorian CPE outbreak as a case study	<b>Professor Ben Howden</b> Microbiological Diagnostic Unit Public health Laboratory, Uni Melb at the PDI
1130	1150	‘Data AND Action’ Effective use of antimicrobial use and infection surveillance data to effect change	<b>A/Professor Leon Worth</b> Infectious Diseases Physician and Epidemiologist, VICNISS at the PDI
1150	1210	The regional AMR strategy – the role of NCAS (national and international)	<b>A/Professor Kirsty Buising</b> Deputy Director NCAS, Royal Melbourne Hospital at the PDI & Department of Medicine, Uni Melb
<b>1210</b>	<b>1300</b>	<b>Lunch</b>	
1300	1325	Update from the veterinary stream	<b>Laura Hardefeldt</b> PhD Candidate ( <i>Professor Glenn Browning</i> )
1325	1350	AMS in livestock production	<b>Dr Helen Billman-Jacobe</b> Veterinary and Agricultural Sciences, Uni Melb
1350	1415	Rural and regional AMS in Australia	<b>Jaclyn Baker</b> PhD Candidate ( <i>A/Professor Kirsty Buising</i> )
<b>1415</b>	<b>1430</b>	<b>Afternoon tea</b>	
1430	1455	AMS in long term care facilities	<b>Leslie Dowson</b> PhD Candidate ( <i>Dr David Kong, Centre for Medicine Use and Safety</i> )
1455	1520	Community and General Practice AMS	<b>Lesley Hawes</b> PhD Candidate ( <i>Professor Danielle Mazza, Chair of General Practice, Monash University</i> )
1520	1545	The tertiary care stream – a focus on surgical prophylaxis	<b>Courtney Ierano</b> PhD Candidate ( <i>Dr Trisha Peel, Department of ID, The Alfred Hospital and Monash University</i> )
1545	1630	Discussion and close	<b>Professor Karin Thursky</b>

Registration is free: <https://www.eventbrite.com.au/e/ncas-annual-forum-2016-tickets-27696278314>

**Post lunch Sessions are by our PhD candidates together with their primary supervisor – Presentations will be 15 minutes, followed by 10 minutes questions & discussion.**

**All presentations will be webcast <https://attendeegotowebinar.com/register/774889989947730179>**

**Laureate Professor Peter Doherty** is uniquely positioned to introduce the speakers for our One Health Centre for Research Excellence Annual Forum. He was and remains the first person with a veterinary qualification to win a Nobel Prize and was Australian of the Year in 1997. Still active in science and involved in large, grant-funded programs, he commutes between St Jude Children's Research Hospital in Memphis and the Doherty Institute where he now spends most of his time. The Doherty Institute provides a wonderful environment to foster a One Health research program with opportunities to engage basic scientists, microbiologists, clinicians, epidemiologists and health services researchers from partner organisations.

**Professor Karin Thursky** is an Infectious Diseases physician and clinician researcher with extensive experience in the development of antimicrobial stewardship programs and knowledge translation research. She is the Director of the National Centre for Antimicrobial Stewardship, Executive Director of the Guidance Group at the Royal Melbourne Hospital (RMH), Deputy Head of Infectious Diseases at the Peter MacCallum Cancer Centre, Professor in the Department of Medicine at the University of Melbourne, and a member of the antimicrobial stewardship team at the RMH. She is an expert advisor to the Antimicrobial Use and Resistance in Australia (AURA) program and a member of the Australian Commission on Safety and Quality in Health Care Antimicrobial Stewardship Committee.

**Professor Glenn Browning** is a veterinarian and microbiologist, and Professor and Director of the Asia-Pacific Centre for Animal Health, a research, teaching and clinical translation centre within the Faculty of Veterinary Science at the University of Melbourne. He is a scientific advisor to the national regulatory agency of veterinary medicines, the Australian Pesticides and Veterinary Medicines Authority on the regulation of anti-infective agents and vaccines, sits on their Veterinary Medicines Expert Advisory Group and has conducted reviews of the efficacy of in-feed antibiotics for the regulator. He leads the animal arm of NCAS with Professor Frank Dunshae and Helen Billman-Jacobe.

**Professor Benjamin Howden** is Director of the Microbiological Diagnostic Unit Public Health Laboratory, and Medical Director of Doherty Applied Microbial Genomics in the Department of Microbiology and Immunology at the University of Melbourne. His research interests have been driven by working in the hospital system, and more recently in public health, where antibiotic resistant pathogens such as methicillin-resistant *S. aureus*, vancomycin-resistant Enterococci, and carbapenem-resistant Enterobacteriaceae are major problems. His current research activities include the application of genomics to understand the emergence, spread and pathogenesis of antimicrobial resistance bacterial pathogens and exploring the role of genomics in public health and clinical microbiology.

**Associate Professor Leon Worth** is an infectious diseases physician and epidemiologist who is currently overseeing several surveillance programs in his role at VICNISS. His areas of expertise include blood stream infections, surgical site surveillance and multidrug resistant organisms (especially VRE). He is an advisor to the National Health Performance Authority and is a member of the AQSCHC hospital infections advisory committee. He is also an expert advisor to the AURA program and has an active role in the development of surveillance, analytics and reporting for the National Antimicrobial Prescribing Survey.

**Associate Professor Kirsty Buising** is Deputy Director of NCAS and has played a pivotal role in the national implementation of AMS. She is Infectious Diseases physician and Clinical researcher at the Victorian Infectious Diseases Service (VIDS) based at the Royal Melbourne Hospital (RMH), an executive director of the Guidance Group and an Associate Professor at the Department of Medicine, University of Melbourne. A/Prof Buising is the chair of the Antimicrobial Stewardship (AMS) committees at the RMH. She has a particular interest in the development of AMS programs for settings outside of the metropolitan public health system with current research in the private, rural and regional setting

## Our Research Streams and Presenters

**Veterinary:** Laura Hardefelt is an equine vet and PhD fellow who is working with Dr Kirsten Bailey, also an equine vet and our post doc in the animal stream. They are examining antimicrobial use in surgical prophylaxis in Australian Veterinary practices. They have also developed and launched the pilot VET NAPS, the first ever national antimicrobial prescribing survey in companion animals. This stream will undertake to examine the feasibility and options for developing AMS programs in companion animals.

**Livestock:** Dr Helen Billman-Jacobe is a microbiologist with over 20 years research experience on bacterial pathogens of humans and animals. Her area of expertise is in bacterial biochemistry and molecular biology. She is a member of the Veterinary and Agricultural Sciences at the University of Melbourne and works closely with co-investigators Professor Frank Dunshea and Prof Glenn Browning on bacterial pathogens in livestock. Her role in the animal studies in the CRE will be to implement the laboratory and field studies on the patterns and impacts of antimicrobial usage in livestock.

**Rural and Regional:** Jaclyn Baker has worked in a number of healthcare sectors as a pharmacist including acute health in regional settings, government health department and education with Pharmaceutical Society of Australia. Jaclyn's most recent appointment was as Deputy Director of Pharmacy (Quality Use of Medicines and Dispensary) at Ballarat Health Services. Jaclyn commenced her PhD with NCAS in 2016 and her Jaclyn's research will focus on effective models for Antimicrobial Stewardship (AMS) programs in regional, rural and remote hospitals. By identifying key success factors for an AMS program in this setting, it is hoped that recommendations can be developed that will guide smaller hospitals towards AMS models that make the most of available resources.

**Aged Care:** Leslie Dowson is a PhD candidate with nine years of prior experience at the National Ageing Research Institute (NARI) undertaking research studies with older Australians. She will explore the impacts of routine diagnostic multiplex respiratory PCR on antibiotic prescribing for respiratory tract infections in aged care homes. Another important piece of work is a qualitative study which aims to identify the opinions of health professionals, and aged care home residents and significant others, of antibiotic use at end-of-life in aged care homes, and to determine their perceptions of potential initiatives to optimise antibiotic use at end-of-life.

**General Practice:** Lesley Hawes is an experienced microbiologist and has an active role in medical student education. She has worked with general practitioners as state wide coordinator of a general practitioner-led quality and safety program for small rural hospitals as well as supporting medical student education on general practice placements at the University of Melbourne. Lesley's PhD aims to analyse and support antimicrobial stewardship in general practice. She will examine the MAGNET database comparing antimicrobial prescribing in adults to recommended guidelines, interview GPs to understand prescribing practices and then, using quality improvement and implementation science, develop interventions to reduce inappropriate antimicrobial prescribing.

**Tertiary Stream:** Courtney Ierano's PhD will focus on the acute tertiary stream of surgical antimicrobial prophylaxis (SAP), using a mixed methods approach to conceptualise factors contributing to inappropriate SAP prescribing rates. It is anticipated that by gaining further insight as to why SAP is inappropriately prescribed, then more specific AMS measures can be developed and implemented to improve this. Her first project will focus on the appraisal of the current national guidelines for SAP, as well a comprehensive review of SAP clinical studies, many performed prior to the modern era of surgical practice and infection prevention.

The NCAS Website <https://ncascre.wordpress.com/>  
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