

# 2024 WESTERN CANADA ONE HEALTH ANTIMICROBIAL STEWARDSHIP CONFERENCE AGENDA

OCTOBER 3-4, 2024

PINNACLE HOTEL HARBOURFRONT (1133 W  
HASTINGS ST, VANCOUVER, BC)  
WEBSITE: [HTTPS://BIT.LY/4CC2JBY](https://bit.ly/4CC2JBY)



National Collaborating Centre  
for Infectious Diseases  
Centre de collaboration nationale  
des maladies infectieuses



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## Acknowledgements

*We acknowledge with gratitude that this conference is being held within the traditional, ancestral and unceded land of the x<sup>w</sup>məθk<sup>w</sup>əyəm (Musqueam), Sk̓wx̓wú7mesh Úxwumixw (Squamish Nation), and səlílwata? (Tsleil-Waututh Nation), and we are thankful for the opportunity to do so.*

We would like to thank the organizing committee members for their dedication and hard work in making this conference possible. We are grateful for their contributions in shaping the agenda and bringing together an outstanding group of speakers.

- Dr. Erin Fraser, BC Centre for Disease Control (Co-Chair)
- Nick Smith, BC Centre for Disease Control (Co-Chair)
- Dr. Anaika Dayton, Coast Mountain Veterinary Services
- Dr. Dale Douma, Manitoba Agriculture
- Dr. Edith Blondel-Hill, Interior Health
- Donna Jepsen, BC Ministry of Health
- Brian Sagar, BC Ministry of Health
- Dr. Siyun Wang, University of British Columbia
- Dr. Gigi Lin, BC Ministry of Agriculture and Food
- Dr. Hannah Lishman, BC Centre for Disease Control
- Dr. Jennifer Grant, BCCDC Public Health Laboratory
- Dr. Linda Hoang, BCCDC Public Health Laboratory
- Dr. Natalie Prystajeky, BCCDC Public Health Laboratory
- Dr. Doris Leung, Canadian Animal Health Surveillance System
- Dr. Victor Leung, Providence Health Care
- Dr. Clifford Pau, University of British Columbia
- Stephanie Burniston, Provincial Infection Control Network of BC

Operational and administrative support was provided by:

- Kristin Weatherall, BC Centre for Disease Control (Project Manager)
- Gayatri Datar, BC Centre for Disease Control (Project Coordinator)

*If you have any questions, please contact the conference team at the BCCDC via email at [onehealth.ams@bccdc.ca](mailto:onehealth.ams@bccdc.ca).*

## Objectives & Themes

The 2024 Western Canada One Health Antimicrobial Stewardship Conference aims to facilitate information exchange on antimicrobial stewardship between human and animal health practitioners, researchers, agriculture and government stakeholders, policy- and decision- makers, and industry members. Through engaging discussions, innovative research, and collaborative initiatives, we will work towards a healthier, more sustainable future for all.

### Conference Objectives

- Increase awareness of evidence-based strategies in antimicrobial stewardship in human, animal and environmental health settings.
- Share resources, training, and tools for appropriate antimicrobial use in humans, animals, and the environment.
- Promote collaboration between educational institutions, professional associations, and regulatory bodies to integrate antimicrobial stewardship principles into healthcare, veterinary practices, and other settings where antimicrobials are applied.
- Engage prescribers and professionals to share best practices, case studies, innovative approaches and competencies in promoting effective antimicrobial stewardship in diverse healthcare, veterinary, and environment settings.
- Advocate for responsible antimicrobial use, emphasizing the importance of integrating tools and practices into existing healthcare and veterinary frameworks and policies.
- Encourage reflection on the impact of antimicrobial stewardship practices and research on Indigenous communities and the role Indigenous knowledge and frameworks have played in the development of strategies addressing antimicrobial resistance using a One Health approach.



## Help Shape a National One Health AMR Research Strategy

Building on the commitments outlined in the Pan-Canadian Action Plan on AMR (PCAP), Agriculture and Agri-Food Canada and the Canadian Institutes of Health Research (CIHR), in collaboration with the CIHR Institute of Infection and Immunity (CIHR-III), are developing a National One Health AMR Research Strategy in partnership with the Public Health Agency of Canada and Environment and Climate Change Canada. This strategy will establish AMR research priorities by integrating a One Health approach that considers the interplay between humans, animals, crops, and their shared environment.

Conference registrants will learn more about plans for developing the Research Strategy during a presentation by Dr. Srinivas Murthy. They will also have an opportunity to complete a survey to share their expertise and define research priorities for the Strategy and key enablers for its implementation.

By collaborating with the Canadian AMR community to develop this National One Health AMR Research Strategy, Canada will create a framework for expanding scientific knowledge and informing decision-making on effective interventions to optimize antimicrobial use and combat AMR.

For more details, please contact: [OneHealthAMRCanada@shifthealth.com](mailto:OneHealthAMRCanada@shifthealth.com)



# Day 1: Thursday, October 3, 2024

7:30am – 8:30am	Registration and breakfast
8:30am – 9:00am	Welcome
9:00am – 9:30am	Keynote Speaker: Dr. Shannon Waters
9:30am – 10:30am	<b>Session: Multi-drug resistant pathogens: Current challenges and future solutions</b>
10:30am – 10:45am	Break
10:45am – 12:00pm	<b>Session: Effective strategies for optimizing antibiotic prescribing</b>
12:00pm – 12:15pm	<b>Help shape a national One Health AMR research strategy</b>
12:15pm - 1:15pm	Lunch
1:15pm - 2:00pm	<b>Session: Innovations in the poultry industry</b>
2:00pm - 2:45pm	Rapid fire poster presentations
2:45pm - 3:00pm	Break
3:00pm - 4:00pm	<b>Session: Future directions in AMR research</b>
4:00pm - 5:00pm	Social hour reception

# Day 2: Friday, October 4, 2024

7:30am – 8:30am	Registration and breakfast
8:30am – 9:00am	Welcome
9:00am – 10:15am	<b>Session: Working together: Strategies for partner engagement in antimicrobial stewardship</b>
10:15am – 10:30am	Break
10:30am – 12:00pm	<b>Session: Monitoring the threat: Surveillance of antimicrobial use and resistance</b>
12:00pm – 1:00pm	Lunch
1:00pm – 2:45pm	<b>Facilitated Session</b>
2:45pm – 3:00pm	Closing Remarks

## Day 1

9:00am -9:30 am

### Keynote Speaker: Dr. Shannon Waters



Dr. Shannon Waters is Coast Salish and a member of the Stz'uminus First Nation on Vancouver Island. She was honored to work in her home territory as a family doctor but became largely frustrated with the health system's focus on sickness and instead chose to focus on what keeps us well. Shannon completed her specialty training in Public Health and Preventive Medicine and has worked in this field at the federal, provincial, and First Nations organizational levels. In 2017, Shannon was honored to come full circle and work in her home territory as the local Medical Health

Officer with Island Health. Her priorities in her work were connection to the environment, mental wellness, and maternal/child/family health. In 2024 Dr. Waters became the first ever Deputy Provincial Health Officer, Planetary and Water Health in the province of BC.

#### **Presentation Title: "Nuts a maht (We are one)"**

Dr. Shannon Waters will share how Coast Salish Knowledge Keeper Shane Pointe's gift of six teachings can provide a map for an approach to One Health.



9:30am -10:30 am

## **Session: Multi-Drug Resistant Pathogens: Current Challenges and Future Solutions**

### **Dr. Linda Hoang**



Dr. Linda Hoang, MD, MSc, DTM&H, FRCPC, obtained her Medical Microbiology residency training at the University of British Columbia. She is the medical director for the BCCDC Public Health Laboratory and a clinical professor in the Dept of Pathology and Laboratory Medicine, Faculty of Medicine, at the University of British Columbia. She enjoys teaching and is the site supervisor of the Medical Microbiology Residency Training Program in the BCCDC Public Health Laboratory. She is also a clinical professor in the Department of Pathology and Laboratory Medicine in the Faculty of Medicine at UBC. Dr. Hoang received her master's and medical degrees, and her FRCPC qualification in medical microbiology, from UBC. She also obtained a diploma in tropical medicine and hygiene from the London School of Hygiene & Epidemiology in the UK. She has been based at BCCDC since 2006 but has been involved in BCCDC-led projects in Vietnam and BC since 1998.

#### **Presentation Title: Carbapenemase Producing Organisms (CPO's): A global and local update on its epidemiology and transmission dynamics**

This presentation will discuss issues and trends related to carbapenemase-producing organisms and other multi-drug resistant pathogens.

### **Dr. Joseph Rubin**



Joe Rubin is a Professor in the Department of Veterinary Microbiology at the University of Saskatchewan specializing in antimicrobial resistance. After completing his DVM, he pursued a PhD studying methicillin-resistant coagulase positive staphylococci followed by post-doctoral fellowships in the areas of intestinal spirochetes in pigs, broad-spectrum beta-lactamases and community acquired *C. difficile*. He teaches bacteriology and mycology in the DVM program and is passionate about creating and sharing open educational resources.

#### **Presentation Title: The current state of broad-spectrum $\beta$ -lactamases in animals**

This presentation will briefly summarize the emerging threat posed by broad spectrum  $\beta$ -lactamases in animals. We will discuss some of the current obstacles impacting our ability to more completely understand the epidemiology of these resistance genes and how antimicrobial use contributes to their emergence.



## Dr. Siyun Wang



Dr. Siyun Wang is the Professor of Food Safety Engineering at the University of British Columbia, where she teaches and conducts research on ensuring a safer farm-to-fork food supply system. Dr. Wang has authored over 70 peer-reviewed papers and book chapters on food safety.

### **Presentation Title: Multi-Drug Resistant Pathogens in Foods**

Multi-drug resistant (MDR) pathogens can enter the food chain by posing a significant risk to both animals and consumers. This talk reviews the roles of animal- and plant-derived foods as vehicles for MDR pathogens, with insights into how food processes, environments and storage conditions impact the dissemination of antimicrobial resistance.

10:45am - 12:00pm

## **Session: Effective Strategies for Optimizing Antibiotic Prescribing**

### **Dr. Daniel Haas**



Daniel Haas, DDS, PhD, FRCD(C), is a professor at the University of Toronto Faculty of Dentistry, with a cross-appointment in the Department of Pharmacology, Faculty of Medicine. He was Dean of the Faculty of Dentistry from 2012 – 2022, and prior to that was Associate Dean, as well as head of its graduate specialty program in dental anesthesia. He has been active in teaching and research, with his scholarship recognized internationally with the receipt of a number of awards.

#### **Presentation Title: Antimicrobial Prescribing in Dentistry**

This presentation will provide an overview of prescribing practices characteristic of the practice of dentistry. Published guidelines specific to dental practice aimed at reducing unnecessary prescribing of antibiotics will be discussed.

### **Dr. Kevin Afra**



Dr. Kevin Afra completed Medical School and Internal Medicine at the University of Calgary, followed by an Infectious Diseases subspecialty at UBC. Kevin went on to obtain a Master of Health Administration from UBC. Kevin is currently the Executive Medical Director of Antimicrobial Stewardship and Infection Control in Fraser Health.

#### **Presentation Title: Shorter is Better**

Unnecessarily prolonged antibiotic treatment exposes patients to more harm without any benefit. A growing body of literature supports shorter durations of therapy for many common infections.



## Barbara Catt and Dr. Jorida Cila



Barbara Catt is a Senior Nurse Consultant working on the AMR Task Force within the Public Health Agency of Canada. She has been involved in research and publications regarding disease transmission and education such as core competencies. Barbara has also played a major role in curriculum development and implementation of the mandatory core competency certification and hand hygiene programs for healthcare workers in Ontario.



Dr. Jorida Cila is a behavioural science advisor working with the Public Health Agency of Canada, where she has contributed to various research projects in areas related to antimicrobial stewardship, as well as mental health and infectious disease. Jorida has a PhD in Social Psychology from York University.

### **Presentation Title: Using behavioural science to improve antimicrobial stewardship (AMS) in long-term care homes in Canada**

The goal of this intervention is to enhance antimicrobial stewardship in long-term care homes by reducing inappropriate UTI testing and treatment. We aim to achieve this through educating key care providers and providing facility-level feedback on urine culture rates and guideline adherence. Challenges and lessons learned will also be discussed.

## Dr. Kim Hooi



Dr. Kim Hooi graduated from the University of Sydney and completed her residency in Small Animal Internal Medicine in 2018 at the Ontario Veterinary College. Currently she practices as a Small Animal Internal Medicine Specialist at Boundary Bay Veterinary Specialty Hospital in Surrey British Columbia.

### **Presentation Title: Challenges and considerations for optimization of antimicrobial prescribing in small animals**

This presentation will focus on the difficulties surrounding decision points around antimicrobial prescription for small animal veterinarians and practical suggestions that can be considered to minimize antimicrobial prescription in small animal practice.



12:00pm - 12:15pm

## Help Shape a National One Health AMR Research Strategy

**Dr. Srinivas Murthy**



Dr. Srinivas Murthy is in the Department of Pediatrics and the Faculty of Medicine at the University of British Columbia. He is the chair of the Institute Advisory Board for the Institutes of Infection and Immunity at CIHR.

### **Presentation Title: Help shape a National One Health AMR research strategy**

Agriculture and Agri-Food Canada and the Canadian Institutes of Health Research, in collaboration with the Public Health Agency of Canada and Environment and Climate Change Canada, are developing a National One Health AMR Research Strategy to establish research priorities by integrating a One Health approach that considers the interplay between human, animal, crop, and environmental health. This brief presentation will overview the Pan-Canadian Action Plan on AMR, plans for the Research Strategy, and a survey for attendees to contribute their expertise.

*Please scan this QR code to take the survey: Considerations for National One Health Antimicrobial Resistance Research Strategy*



1:15pm - 2:00pm

## **Session: Innovations in the poultry industry**

### **Dr. Inanc Birol**



Dr. Inanc Birol is a Professor of Medical Genetics at the University of British Columbia, a Distinguished Scientist at Canada's Michael Smith Genome Sciences Centre, and an Associate Scientist at BC Centre for Disease Control. He leads a Genome Canada/Genome BC funded project developing antimicrobial peptides for poultry farming and is the Chief Scientific Officer of Amphoraxe Life Sciences, commercializing the peptides from his academic research.

#### **Presentation Title: Disruptive technologies in peptide design: From sequence to veterinary drug candidates**

Antimicrobial peptides (AMPs) offer a promising alternative to traditional antibiotics in veterinary applications. However, translating them into safe and effective products has been challenging. In this presentation, Innac will explore how cutting-edge machine learning techniques are revolutionizing the field of AMP research in identifying novel candidates from vast genomic databases, designing synthetic AMPs with enhanced antimicrobial properties, and optimizing them for improved safety and efficacy.

### **Dr. Neil Ambrose**



Dr Neil Ambrose is a poultry veterinarian who has worked in poultry practice for 23 yrs consulting for Sunrise Farms, one of the largest poultry processors in Canada. He is also a certified Board member of the American College of Poultry Veterinarians.

#### **Presentation Title: Antimicrobial reduction strategies of the Canadian chicken industry**

Over the last ten years the Canadian broiler chicken industry has made significant strides to reduce the preventative use of antimicrobials in chicken production. These strategies and their impact will be reviewed and explained for the number one meat protein consumed by Canadians.



2:00pm - 2:45pm

## **Rapid Fire Poster Presentations**

Students, trainees, researchers and practitioners were invited to submit abstracts for poster presentations.

### **The Role of Gender in Antimicrobial Resistance: Findings from a Scoping Review**

Arne Ruckert, Zlatina Dobрева, Suzanne Garkay Naro, Sarah Paulin-Deschenaux, Lindsay Wilson, Clare McGall, Rosemary Morgan, Susan Rogers Van Katwyk

### **Best Practices for One Health Governance to Mitigate Antimicrobial Resistance in Pakistan: Findings from a Scoping Review**

Suzanne Garkay Naro, Uswa Shafaque, Arne Ruckert

### **Examining Potential Transmission of Antimicrobial Resistant Enterococcus spp. and Escherichia fergusonii between Wild Birds and Organic Poultry Productions in the Fraser Valley, BC**

Rhiannon Wallace, Siyun Wang, Karissa Perry.

### **Administration of antibiotics in feed, water, or via injection, for a more judicious use of antibiotics in swine production**

Christian Klopfenstein, Marie-Claude Poulin, Patrick Gagnon, Raphaël Mbombo Mwendela, Léonie Morin-Doré

### **Prevalence of Methicillin Resistance Staphylococcus Aureus in Slaughterhouses and Meat Shops of Northern Area of Pakistan**

Sohail Khan, Muhammad Ijaz Ali

### **Antimicrobial resistance as ecological public goods: mobility and risk assessment via genomic analysis of >66K replicons**

Baofeng Jia, Fiona S.L. Brinkman

### **Evaluating Veterinary Diagnostic Laboratory Data as a Tool for Monitoring Antimicrobial Resistance in British Columbia**

Ainsley Robertson, Michelle Coombe, Michael Lee

### **Assessment of the Impact of Genes Involved in Phage Resistance on Virulence and Sanitizer Susceptibility in Salmonella Enteritidis**

Shelyn Wongso, Siyun Wang, Lin Chen

### **A One-Health assessment of extended-spectrum beta-lactamase-producing Escherichia coli in dairy farms in the Fraser Valley**

Cassandra Klaas, Shawn Hoogstra, Siyun Wang, Rhiannon Wallace

## **Manitoba Agriculture Veterinary Diagnostics Services: Antimicrobial Stewardship**

Zakiyah Mohammed, Oluwakemi Omotosho, Dale Douma, Glen Duizer

## **Government Policy Interventions to Reduce Human Antimicrobial Use: An Updated Systematic Review and Evidence Map**

Daniela Corno, Kayla Strong, Fiona Emdin, Susan Rogers Van Katwyk, Sharlini Yogasingam, Clare McGall, Jeremy M Grimshaw, Mathieu Poirier

## **Environmental Scan of Provincial/Territorial Antimicrobial Stewardship Programs Related to Human Health**

Oscar Niragira, Barbara Catt, Jami Mackenzie, Kanchana Amaratunga

## **Exploring Antibiotic Resistance in the Microbiome of Barbour's Seahorse and Its Habitat**

Rose Chinly Mae Ortega-Kindica

## **Integrative Metagenomic Dissection of Last-Resort Antibiotic Resistance Genes and Mobile Genetic Elements in Hospital Wastewaters**

Muhammad Shafiq

## **Forging the alliance: design, launch and initial reception of the Manitoba Antimicrobial Resistance Alliance (MAMRA)**

Kirsten Biggar, Terry Wuerz, Harpa Isfeld-Kiely

## **Gender and antimicrobial resistance: a conceptual framework for researchers working in livestock systems**

Fiona Emdin

## **Three Innovative Policy Pathways for Reducing the Use of Medically Important Antimicrobials**

Fiona Emdin, Samuel Orubu, Kayla Strong

## **Audit and feedback promotes documentation of indications for antimicrobial prescriptions among primary healthcare prescribers**

Jason Vanstone

## **Antimicrobial Stewardship Competencies: A Pan-Canadian Framework for Nurses**

Sahar Momin, Deanne O'Rourke

## **AMR Stewardship in action: A policy scan on antimicrobial use in BC and Ontario dairy industries**

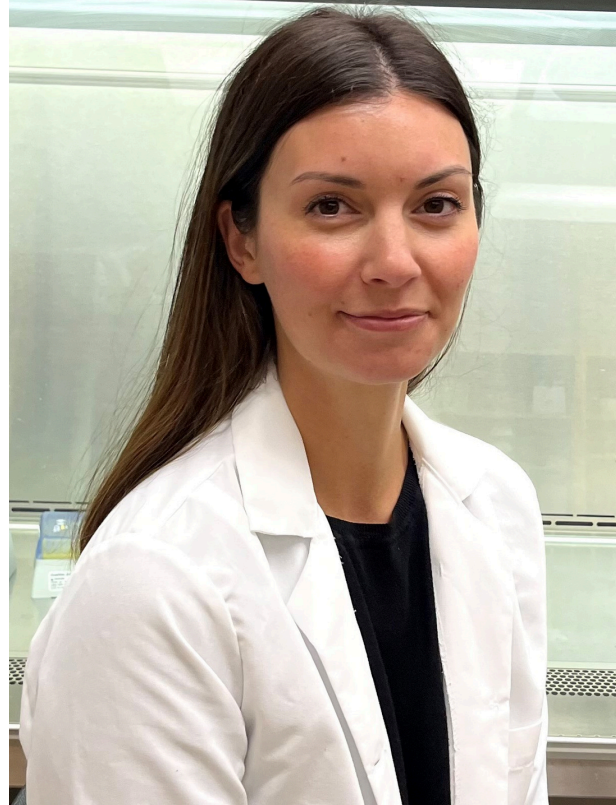
Alexandra Selinger, Kaylee Byers



3:00pm - 4:00pm

## Session: Future Directions in AMR Research

### Dr. Jordyn Broadbent



Dr. Broadbent is an aquatic microbial ecologist and toxicologist within the Water Science and Technology Directorate of Environment and Climate Change Canada, with a focus on ecological impacts of chemical and plastic contaminants in Canadian freshwater systems. She is co-lead of the environment-focused Work Package 1 within the Government of Canada's interdepartmental Genome Research Development Initiative (GRDI) AMR-2 Program. She is also co-lead for the National River Water Quality Modelling System currently under development by ECCC.

### **Presentation Title: Environmental dimensions of AMR in Canada: stewardship and regulatory contexts**

International evidence shows water and wildlife can harbor AMR genes and pathogens, posing risks to human and animal health. Environmental contamination by antimicrobials increases these risks, emphasizing the need for environmental antimicrobial stewardship. In Canada, investigating environmental AMR dynamics in a One Health context is challenging due to regulatory frameworks, vast geography, dispersed population, and remote communities. Recent studies in Canada explore environmental AMR burdens and policy interventions for antimicrobial stewardship. The current regulatory approach to AMR and antimicrobial use in the Canadian environment will be discussed in this presentation.

### Dr. Rhiannon Wallace



Dr. Rhiannon Wallace is a Research Scientist in the area of Food Microbiomics at Agriculture and Agri-Food Canada (AAFC) and has worked at the Agassiz Research & Development Centre for the past 4 years. Dr. Wallace leads a research program that combines molecular techniques and genomic approaches to study the transmission of AMR bacteria along the One-Health continuum and new tools for rapid pathogen detection.

Her current research activities involve collaboration with livestock producers in the Fraser Valley and other federal government departments with the aim of elucidating hotspots for AMR transmission in order to identify points along the One-Health continuum for resistance mitigation.



**Presentation Title: Antimicrobial Resistance across the One-Health continuum of a peri-urban setting in British Columbia**

Extended-spectrum beta-lactamase (ESBL)- producing Enterobacteriaceae, such as *Escherichia coli*, are emerging as a serious threat to public health due to their rapid spread and their multidrug-resistant phenotypes. However, limited information is available regarding the prevalence and risk of transmission of ESBL *E. coli* in the Fraser Valley region of BC. Results from a One-Health investigation of ESBL-*E. coli*, isolated from dairy farms, surrounding environments and urban wastewater over a two year period will be presented.

**Dr. Hannah Lishman**

Dr. Hannah Lishman is the Senior Scientist for Community Antimicrobial Stewardship at the BC Centre for Disease Control. She helps to deliver research, surveillance and program evaluation outputs related to community antimicrobial resistance and stewardship across BC. She specialises in cohort study design and has, for the past few years, been running inter-provincial cohort studies across BC and Manitoba investigating the impact of antibiotic use in infancy on childhood asthma and other allergic outcomes."

**Presentation Title: Antibiotic use in infancy and atopic diseases; is childhood asthma preventable through good antibiotic stewardship?**

Dr. Lishman will present results from ongoing cohort studies in BC and Manitoba with respect to antibiotic use in infancy and atopic disease risk. Updates on the knowledge translation activities relating to this work will also be shared.

## Day 2

9:00am - 10:15am

### **Session: Working Together: Strategies for Partner Engagement in Antimicrobial Stewardship**

#### **Dr. Daniella Rizzo**



Dr. Daniella Rizzo is a veterinary epidemiologist working at the Public Health Agency of Canada with the Canadian Integrated Program for Antimicrobial Resistance Surveillance (CIPARS) as lead of the dairy AMU/AMR surveillance program, as well as a dairy veterinarian in private practice. Daniella obtained her Doctor of Veterinary Medicine degree from the Ontario Veterinary College in 2017, and is currently working on a PhD in epidemiology with a focus on antimicrobial use in dairy cattle.

#### **Presentation Title: Better together: Enhancing antimicrobial stewardship through stakeholder engagement and lessons from CAHSS AMU/ AMR Network**

This presentation explores the Canadian Animal Health Surveillance System (CAHSS) as a complex network of interconnected systems, with a focus on antimicrobial stewardship. We will examine how effective stakeholder engagement underpins the collaborative efforts essential for safeguarding antimicrobial efficacy and enhancing the health and welfare of animal populations.

#### **Kate O'Connor, RN, MSc**



Kate O'Connor is a nurse educator with the Community Antimicrobial Stewardship Team at the BC Centre for Disease Control. She has a range of experience from 15 years of public health nursing. Her work is underpinned by a passion for equity based practice and improved health outcomes through upstream prevention.

#### **Presentation Title: Partner engagement in Community Antimicrobial Stewardship**

This talk provides an overview on the importance of outreach in community antimicrobial stewardship programs. Join me on a journey of successful partnerships for delivering public and professional education on antimicrobial stewardship and health promotion in BC.



## Dr. Colin Lee



Colin Lee is a clinical pharmacy specialist in antimicrobial stewardship and a Clinical Assistant Professor at the Faculty of Pharmaceutical Sciences at the University of British Columbia. He obtained his BSc.Pharm degree from the University of Alberta, PharmD at the University of Toronto, and completed his antimicrobials stewardship fellowship at Sunnybrook Health Sciences Centre in Toronto, Ontario. He currently works as the antimicrobial stewardship pharmacist at St. Paul's Hospital.

### **Presentation Title: Bridging the Gaps in Care: Partnership Opportunities for Pharmacists, Prescribers, and Patients**

To explore the unique role of hospital pharmacists to allow for engagement with various partners to promote antimicrobial stewardship

## Dr. Herman Barkema



Dr. Herman Barkema is a Professor in Epidemiology of Infectious Diseases at the Faculty of Veterinary Medicine of the University of Calgary, with a joint appointment at the Cumming School of Medicine. He is a United Nations University Chair in Infectious Diseases in a Changing Climate. Dr. Barkema's research program focuses on prevention and control of infectious diseases in livestock and humans, including antimicrobial resistance. Dr. Barkema leads the Antimicrobial Resistance – One Health Consortium, One Health at UCalgary, and the Canadian Antimicrobial Resistance Network (CAN-AMR-Net).

Consortium, One Health at UCalgary, and the Canadian Antimicrobial Resistance Network (CAN-AMR-Net).

### **Presentation Title: The Canadian AMR Network (CAN-AMR-Net)**

CAN-AMR-Net is a CIHR-funded Canada-wide training program with five regional hubs. It will foster discipline-specific training across human and animal health, agriculture, biomedical, social science, and engineering disciplines while also providing transdisciplinary training that integrates these across OH sectors. Resulting trainees will take these transdisciplinary skills to their areas of focus to drive innovation that better meets the needs of OH stakeholders to tackle AMR (and many other challenges) at the human-animal-environment interfaces.



10:30am - 12:00pm

## **Session: Surveillance of Antimicrobial Use and Resistance**

### **Dr. Natalie Prystajeky**



Dr. Natalie Prystajeky is the Program Head of the Environmental Microbiology and the Molecular and Microbial Genomics laboratories at the BCCDC Public Health Laboratory (PHL). Dr. Prystajeky is also a Clinical Associate Professor in Pathology and Laboratory Medicine at the University of British Columbia. In recent years, she played a pivotal role in developing sequencing capacity at the BCCDC, launching BC's wastewater surveillance program and conducting collaborative research to respond to H5N1 in birds.

### **Presentation Title: Down the Drain: Monitoring Antimicrobial Resistance via Wastewater Analysis**

Wastewater surveillance was front and centre during the SARS-CoV-2 pandemic. Here, we explore the opportunities to leverage this expertise across Canada to respond to the ongoing threat of antimicrobial resistance.

### **Dr. Herman Barkema**



Dr. Herman Barkema is a Professor in Epidemiology of Infectious Diseases at the Faculty of Veterinary Medicine of the University of Calgary, with a joint appointment at the Cumming School of Medicine. He is a United Nations University Chair in Infectious Diseases in a Changing Climate. Dr. Barkema's research program focuses on prevention and control of infectious diseases in livestock and humans, including antimicrobial resistance. Dr.

Barkema leads the Antimicrobial Resistance – One Health Consortium, One Health at UCalgary, and the Canadian Antimicrobial Resistance Network (CAN-AMR-Net).

### **Presentation Title: AMR/AMU surveillance, policies and guidelines in dairy industry**

An overview of the current situation regarding antimicrobial use (AMU) and resistance (AMR) in the dairy industry in Canada and globally will be presented. Additionally, the effects of approaches to reducing AMU and AMR in the Canadian dairy industry will be discussed. Finally, the need to address AMU and AMR on a global scale will be examined.



### Dr. Jennifer Grant



Dr. Jennifer Grant trained in Medicine, Infectious Diseases and Medical Microbiology at McGill and has practiced Microbiology and Infectious Diseases in Vancouver since 2007. She is now the program head for bacteriology and mycology at BCCDC with an interest in health systems, antimicrobial stewardship and quality of patient care.

#### **Presentation Title: What antibiotic resistance and use can tell us**

Dr. Grant will provide a summary of the data and trends for use of antimicrobials and the correlation with resistance in bacterial pathogens with assessment of potential future and implications for health systems.

### Dr. Richard Reid-Smith



Richard Reid-Smith is a veterinary epidemiologist with the Foodborne Disease and Antimicrobial Resistance Surveillance Division, Public Health Agency of Canada. Prior to joining PHAC, he spent 15 years in companion animal veterinary practice in Toronto. He has worked primarily on the Canadian Integrated Program for Antimicrobial Resistance Surveillance and secondarily on FoodNet Canada since their development began in the early 2000s, and is currently co-lead of both programs, focused on surveillance operations and research.

#### **Presentation Title: Strengthening One Health surveillance of foodborne antimicrobial resistance in Canada**

This session will explore the complementary aspects of the Canadian Integrated Program for Antimicrobial Resistance Surveillance (CIPARS) and FoodNet Canada in developing a more holistic approach to foodborne AMR surveillance.

1:00pm - 2:45pm

**Facilitated session: World Café: Exchanging knowledge and ideas on key antimicrobial stewardship topics.**

This session will provide attendees with an opportunity to share more about their work, experience, and knowledge. Stations will be set up to act as “hubs” on various important topics for discussion.

- **Hub 1:** Policy
- **Hub 2:** Knowledge translation and communicating AMR risk
- **Hub 3:** Indigenous knowledge
- **Hub 4:** Strategies for working better together
- **Hub 5:** Research