

**CSM Annual Conference  
Scientific Program**


Monday — June 18, 2018		
8:00 AM	<b>Registration</b> <i>Location:</i> 2nd floor University Centre (UC) Alcove	
9:30 AM – 4:15 PM	<b>NML &amp; Antimicrobial Resistant Nosocomial Infections Laboratory Tour</b> <i>Bus Pick Up &amp; Drop Off:</i> UC 2 <sup>nd</sup> Floor, Main Entrance  <b>First Tour (AM):</b> Departure at 9:30 AM   Return at 12:45 PM <b>Second Tour (PM):</b> Departure at 1:00 PM   Return at 4:15 PM	
9:00 AM – 12:30 PM	<p style="text-align: center;"><b>PROFESSIONAL DEVELOPMENT WORKSHOP</b></p> <p style="text-align: center;"><i>Chairs:</i> Teresa de Kievit, Denice Bay, University of Manitoba, Winnipeg, MB &amp; Josh Neufeld University of Waterloo, Waterloo, ON</p> <p style="text-align: center;"><i>Location:</i> Marshall McLuhan Hall 204 UC</p> <p><b>9:00 – 10:30 AM:</b>  <b>Redefining Networking: Networking for People Who Don't Want to Network (or How to Get Out of the Lab and Talk to People)</b>  <u>Christine Kampen-Robinson</u> (PhD): Professional Career Development Specialist, University of Manitoba</p> <p><b>10:30 – 10:50 AM:</b> Coffee Break  <b>10:50 AM – 12:30 PM:</b> Panel Discussion Q&amp;A</p>	<p style="text-align: center;"><b>9:30 – 11:00 AM</b>  <b>CSM Executive Meeting</b>  <i>Location:</i> 250 Allen</p> <p style="text-align: center;">Coffee Break</p> <hr/> <p style="text-align: center;"><b>11:30 AM – 1:00 PM</b>  <b>CSM Council Meeting</b>  <i>Location:</i> 250 Allen</p> <p style="text-align: center;">Lunch</p>
1:00 – 4:30 PM	<p style="text-align: center;"><b>FORUM FOR MICROBIOLOGY EDUCATION (FOME) WORKSHOP: "Making great ideas (about small things) stick!"</b></p> <p style="text-align: center;"><i>Chairs:</i> Tanya Noel, University of Windsor, Windsor, ON &amp; Josie Libertucci, University of Michigan, MI, USA</p> <p style="text-align: center;"><i>Location:</i> Marshall McLuhan Hall 204 UC</p> <p><b>1:00 – 1:15 PM:</b> Welcome and introductions</p> <p><b>1:15 – 2:45 PM:</b> Hands-on session: <b>Practical ways to develop and use active and engaging activities in your classes or labs</b></p> <p><b>2:45 – 3:15 PM:</b> Break</p> <p><b>3:15 – 4:15 PM:</b> MicroFOME sessions and discussions</p> <ul style="list-style-type: none"> <li>• <b>Anni Moore, Matthew Nieland:</b> Using common read to facilitate common interest: Strategies for engaging small, medium, and large size biology classes in book discussions</li> <li>• <b>Nicole Sukdeo, Keith N. Egger:</b> "My Favourite Microbe" – A creative assignment for exploring microbial diversity</li> <li>• <b>Jessica Hill:</b> Tips on designing online courses in biology</li> </ul> <p><b>4:15 – 4:30 PM:</b> Closing remarks</p>	

<p>4:30 – 5:30 PM</p>	<p><b>NSERC GRANTS INFORMATION SESSION</b></p> <p>This presentation includes the review process of the Discovery Grants Program, research topics related to the Genes, Cells and Molecules (1501) Evaluation Group, the 2018 Discovery Grants (DG) and Research Tools &amp; Instruments (RTI) Competition Results, NSERC program updates, and important information for the 2019 DG and RTI Competitions.</p> <p><i>Presenters:</i> <b>Catherine Gucciardi Garcez</b>, Program Officer &amp; <b>Céline Bérubé</b>, Team Leader  <i>Location:</i> Graduate Student Association Lounge, 217 UC</p> 
<p>5:45 – 6:00 PM</p>	<p><b>Welcome from CSM 2018 Co-Chairs</b></p> <p><b>Ann Karen Brassinga, Ayush Kumar, and Ivan Oresnik</b>          University of Manitoba, Winnipeg, MB</p> <p><i>Location:</i> Killarney Room 210 UC</p>
<p>6:00 – 7:00 PM</p>	<p><b>PLENARY LECTURE</b></p> <p><b>From soil to cytosol: the pathogenic transition of the environmental bacterium <i>Listeria monocytogenes</i></b>  <b><u>Nancy Freitag</u></b>, University of Chicago, Illinois, USA</p> <p><i>Location:</i> Killarney Room 210 UC</p>
<p>7:00 – 8:30 PM</p>	<p><b>Welcome Reception</b></p> <p><i>Location:</i> 204 UC, Marshall McLuhan Hall, 2nd Floor</p> 


Tuesday – June 19, 2018


8:00 AM	<b>Registration</b> <i>Location:</i> 2nd floor University Centre (UC) Alcove		
8:30 – 10:00 AM	<p style="text-align: center;"><b>Session 1</b>  <b>Viruses: From Environments to Clinics</b>  <i>Sponsored by University of Manitoba - Department of Medical Microbiology</i></p> <p><i>Chair:</i> Keith Fowke, Manitoba  <i>Vice-Chair:</i> Peter Pelka, Manitoba  <i>Location:</i> Armes 200</p> <p style="text-align: center;">8:30 – 9:00 AM  <b>Towards a universal Influenza virus vaccine</b>  <i>Invited Keynote Speaker:</i>  <u>Peter Palese</u>, Icahn School of Medicine at Mount Sinai, USA</p> <p style="text-align: center;">9:00 – 9:20 AM  <b>Potent inhibition of pathogenic viruses using ubiquitin variants that target viral deubiquitinases</b>  <u>Brian Mark</u>, University of Manitoba, Winnipeg, MB</p> <p style="text-align: center;">9:20 – 9:40 AM  <b>Navigating the storm: Merging basic research with clinical information for (re)emerging infectious diseases</b>  <u>Jason Kindrachuk</u>, University of Manitoba, Winnipeg, MB</p> <p style="text-align: center;">9:40 – 10:00 AM  <b>Post-Exposure administration of whole inactivated H5N1 Influenza vaccine protects mice from lethal homologous infection</b>  <u>Darwyn Kobasa</u>, Public Health Agency of Canada, Winnipeg, MB</p>	<p style="text-align: center;"><b>Session 2</b>  <b>Genomics and Bioinformatics</b></p> <p><i>Chair:</i> Andrew McArthur, McMaster  <i>Vice-Chair:</i> Gary Van Domselaar, Manitoba  <i>Location:</i> Armes 201</p> <p style="text-align: center;">8:30 – 9:00 AM  <b>Evolutionary and temporal views of microbial diversity</b>  <i>Invited Keynote Speaker:</i>  <u>Robert Beiko</u>, Dalhousie University, Halifax, NS</p> <p style="text-align: center;">9:00 – 9:20 AM  <b>GenOME Resolution by Density-gradient Isopycnic Analysis (GORDIAN) for sequence-based microbial community analysis</b>  <u>Josh Neufeld</u>, University of Waterloo, Waterloo, ON</p> <p style="text-align: center;">9:20 – 9:40 AM  <b>How many SNPs are enough SNPs? Correctly identifying colonal isolates, using whole genome sequencing, during a foodborne outbreak investigation</b>  <u>Jennifer Ronholm</u>, McGill University, Montreal, QC</p> <p style="text-align: center;">9:40 – 10:00 AM  <b>Quantitative proteomics of the host-pathogen interplay during <i>Salmonella Typhimurium</i> infection</b>  <u>Jennifer Geddes-McAlister</u>, Max Planck Institute of Biochemistry, Germany</p>	<p style="text-align: center;"><b>Session 3</b>  <b>Bacterial Stress Response</b></p> <p><i>Chair:</i> Elitza Tocheva, Montreal  <i>Vice-Chair:</i> Cezar Khursigara, Guelph  <i>Location:</i> Armes 205</p> <p style="text-align: center;">8:30 – 9:00 AM  <b>A high-frequency phenotypic switch regulating virulence in <i>Acinetobacter baumannii</i></b>  <i>Invited Keynote Speaker:</i>  <u>Phil Rather</u>, Emory University School of Medicine, USA</p> <p style="text-align: center;">9:00 – 9:20 AM  <b>Mechanism of antibacterial toxin delivery by the bacterial type VI secretion system</b>  <u>John Whitney</u>, McMaster University, Hamilton, ON</p> <p style="text-align: center;">9:20 – 9:40 AM  <b>Branching out: New horizons in <i>Streptomyces</i> development</b>  <u>Marie Elliot</u>, McMaster University, Hamilton, ON</p> <p style="text-align: center;">9:40 – 10:00 AM  <b>Transient osmotic perturbation causes long-term alteration to the gut microbiota</b>  <u>Carolina Tropini</u>, Stanford University School of Medicine, USA</p>

<p>10:00 – 10:45 AM</p>	<p><i>Coffee Break</i>  <i>Refreshments will be served</i></p> <p><b>Location:</b> Marshall McLuhan Hall 204 UC and Multi-purpose room (214, 220, 224 UC)</p>		
<p>10:45 AM – 12:15 PM</p>	<p style="text-align: center;"><b>Session 4</b>  <b>Structural Biology and Chemogenomics</b></p> <p><b>Chair:</b> Trevor Moraes, Toronto  <b>Vice-Chair:</b> Brian Mark, Manitoba  <b>Location:</b> Armes 200</p> <p style="text-align: center;">10:45 – 11:15 AM  <b>Bacterial pathogens rewriting ubiquitination pathways in the host</b>  <b>Invited Keynote Speaker:</b>  <u>Alexei Savchenko</u>, University of Calgary, Calgary, AB</p> <p style="text-align: center;">11:15 – 11:35 AM  <b>Sporulation in Gram-negative bacteria</b>  <u>Elitza Tocheva</u>, Université de Montréal, Montréal, QC</p> <p style="text-align: center;">11:35 – 11:55 AM  <b>Structural characterization of HP0175 from <i>Helicobacter pylori</i> reveals an extension of Chaperone Helices upon target interaction</b>  <u>Gerald Audette</u>, York University, Toronto, ON</p> <p style="text-align: center;">11:55 AM – 12:15 PM  <b>The conserved prophage protein Paratox blocks activation of the quorum sensing transcriptional regulator ComR in <i>Streptococcus</i></b>  <u>Gerd Pohna</u>, University of Manitoba, Winnipeg, MB</p>	<p style="text-align: center;"><b>Session 5</b>  <b>Microbiome</b></p> <p><b>Chair:</b> Lisa Osborne, UBC  <b>Vice-Chair:</b> Adam Burgener, Manitoba  <b>Location:</b> Armes 201</p> <p style="text-align: center;">10:45 – 11:15 AM  <b>Using comparative genomics to identify the genetic basis of commensal effects on plant health</b>  <b>Invited Keynote Speaker:</b>  <u>Cara Haney</u>, University of British Columbia, Vancouver, BC</p> <p style="text-align: center;">11:15 – 11:35 AM  <b>Unmasking the contribution of uncultivated species and biovars in the vaginal microbiome to preterm birth</b>  <u>Laura Sycuro</u>, University of Calgary, Calgary, AB</p> <p style="text-align: center;">11:35 – 11:55 AM  <b>Microbial fibre breakdown and cross-feeding in the infant gut</b>  <u>Jennifer Stearns</u>, McMaster University, Hamilton, ON</p> <p style="text-align: center;">11:55 AM – 12:15 PM  <b>Experimental microbial dysbiosis does not accelerate disease progression in SIV Infection</b>  <u>Jason Brenchley</u>, National Institutes of Health, USA</p>	<p style="text-align: center;"><b>Session 6</b>  <b>Biotechnology for Biofuels and Bioproducts</b></p> <p><b>Chair:</b> Elizabeth Edwards, Toronto  <b>Vice-Chair:</b> David Levin, Manitoba  <b>Location:</b> Armes 205</p> <p style="text-align: center;">10:45 – 11:15 AM  <b>Microbial cellulose utilization: From applications to fundamentals and back again</b>  <b>Invited Keynote Speaker:</b>  <u>Lee Lynd</u>, Thayer School of Engineering at Dartmouth, USA</p> <p style="text-align: center;">11:15 – 11:35 AM  <b>Metagenomics of microbial dechlorinating consortia</b>  <u>Elizabeth Edwards</u>, University of Toronto, Toronto, ON</p> <p style="text-align: center;">11:35 – 11:55 AM  <b>Polyhydroxyalkanoate (PHA) production by <i>Pseudomonas chlororaphis</i> PA23 is controlled by quorum sensing and the global regulator ANR</b>  <u>Teresa de Kievit</u>, University of Manitoba, Winnipeg, MB</p> <p style="text-align: center;">11:55 AM – 12:15 PM  <b>Dual culture of bacterium and fungus to increase the recovery of nutrients from agriculture byproducts</b>  <u>Takuji Tanaka</u>, University of Saskatchewan, Saskatoon, SK</p>

12:15 – 1:20 PM	<p><b>Lunch and Exhibitors</b> <i>Location:</i> Marshall McLuhan Hall 204 UC and Multi-purpose room (214, 220, 224 UC)</p>
12:20 – 1:20 PM	<p><b>WORKSHOPS</b></p> <p>Canadian Science Publishing <i>Discussing the future of microbiology research publishing</i> <i>Presenters:</i> <b>Christopher Yost</b>, University of Regina &amp; <b>Kari Dunfield</b>, University of Guelph <i>Location:</i> Graduate Student Association Lounge, 217 UC</p> 
1:30 – 3:00 PM	<p style="text-align: center;"><b>STUDENT SYMPOSIUM I</b></p> <p style="text-align: center;"><i>Chairs:</i> Josh Neufeld, University of Waterloo, Waterloo, ON &amp; Denice Bay, University of Manitoba, Winnipeg, MB</p> <p style="text-align: center;">(6 timeslots - 12 min + 3 min questions each) <i>Location:</i> Killarney Room 210 UC</p> <p><b>1:30 – 1:45 PM</b> <b>The impact of an active soil microbial community on greenhouse gas emissions in the Canadian high Arctic</b> <u>Ianina Altshuler</u>, McGill University, Montreal, QC</p> <p><b>1:45 – 2:00 PM</b> <b>Structure and peptidoglycan association of peptidoglycan O-acetyltransferase B from <i>Neisseria gonorrhoeae</i></b> <u>Ashley Brott</u>, University of Guelph, Guelph, ON</p> <p><b>2:00 – 2:15 PM</b> <b>CRISPRStudio: a user-friendly software for rapid CRISPR array visualization</b> <u>Moira Dion</u>, Université de Laval, Quebec, QC</p> <p><b>2:15 – 2:30 PM</b> <b>Application of culturomics to elucidate microbiome-inflammation interactions in the porcine intestinal tract</b> <u>Paul Moote</u>, Agriculture and Agri-Food Canada, Lethbridge Research Centre, Lethbridge, AB</p> <p><b>2:30 – 2:45 PM</b> <b>Design and evaluation of Tobramycin-Cyclam conjugates as classic antibiotic potentiators against Gram-negative bacteria</b> <u>Temilolu Idowu</u>, University of Manitoba, Winnipeg, MB</p> <p><b>2:45 – 3:00 PM</b> <b>PsrA is a regulator of virulence and cyst biogenesis in <i>Legionella pneumophila</i></b> <u>Christopher Graham</u>, University of Manitoba, Winnipeg, MB</p>
3:00 – 5:00 PM	<p><b>Poster Session I and Exhibitors</b> <i>Coffee Break and Cash Bar Refreshments will be served</i> <i>Location:</i> Marshall McLuhan Hall 204 UC and Multi-purpose room (214, 220, 224 UC)</p>



5:00 – 6:00 PM	<p><b>Thermo Fisher Award Lecture</b> <i>Sponsored by Thermo Fisher Scientific</i></p> <p><b>Searching for biological novelty in a sea of genomes: detecting the unexpected</b> <b>Dr. Andrew Doxey</b>, University of Waterloo, Waterloo, ON</p> <p><i>Location:</i> Killarney Room 210 UC</p>		
6:00 – 9:00 PM UC – 3rd Floor	<p><b>Student Mixer &amp; ASM/CSM Student Networking Event</b></p> <p>This "Science Speed Dating"-style event gives students an opportunity to practice their networking skills with scientists from a variety of fields and geographic locations. Open to all Student Mixer ticket holders.</p> <p><i>Location:</i> I.Q.'s Café &amp; Billiards and The HUB PUB</p>		
8:00 PM	<p><b>Student Mixer Extra Event</b> <i>Bus pick up: University Center, 2nd Floor main entrance</i></p>		
<p><b>Wednesday – June 20, 2018</b></p>			
8:00 AM	<p><b>Registration</b> <i>Location:</i> 2nd floor University Centre (UC) Alcove</p>		
8:30 – 10:00 AM	<p style="text-align: center;"><b>Session 7</b></p> <p style="text-align: center;"><b>Antimicrobial Resistance</b></p> <p><i>Chair:</i> Mike Mulvey, NML <i>Vice-Chair:</i> Cheryl Waldner, Saskatchewan <i>Location:</i> Armes 200</p> <p style="text-align: center;"><b>8:30 – 9:00 AM</b></p> <p><b>Chasing carbapenemase carrying plasmids through patients and plumbing</b> <i>Invited Keynote Speaker:</i> <u>Amy Mathers</u>, University of Virginia, USA</p> <p style="text-align: center;"><b>9:00 – 9:20 AM</b></p> <p><b>Extended spectrum <math>\beta</math>-lactamases producing bacteria isolated from feces of gilts and sows reared in conventional and antibiotic-free settings</b> <u>Dominic Poulin-Laprade</u>, Sherbrooke Research and Development Centre of Agriculture and Agri-Food Canada, Sherbrooke, QC</p>	<p style="text-align: center;"><b>Session 8</b></p> <p style="text-align: center;"><b>Unusual Microbes and Extreme Environments</b></p> <p><i>Chair:</i> Jake McKinlay, Indiana <i>Vice-Chair:</i> Nadia Mykytczuk, Laurentian <i>Location:</i> Armes 201</p> <p style="text-align: center;"><b>8:30 – 9:00 AM</b></p> <p><b>Unusual microbes in relatively normal environments: Bringing the extremophiles home</b> <i>Invited Keynote Speaker:</i> <u>Jennifer Biddle</u>, University of Delaware, USA</p> <p style="text-align: center;"><b>9:00 – 9:20 AM</b></p> <p><b>Bioconversion of Selenium and Tellurium oxyanions into nanomaterials by bacteria</b> <u>Raymond Turner</u>, University of Calgary, Calgary, AB</p>	<p style="text-align: center;"><b>Session 9</b></p> <p style="text-align: center;"><b>Host-Microbe Interactions</b></p> <p><i>Chair:</i> Tao Dong, Calgary <i>Vice-Chair:</i> Mauricio Terebiznik, Toronto Scarborough <i>Location:</i> Armes 205</p> <p style="text-align: center;"><b>8:30 – 9:00 AM</b></p> <p><b>To Give or to Take: Bacterial regulation of conflicting symbiotic behaviors with Invertebrates</b> <i>Invited Keynote Speaker:</i> <u>Heidi Goodrich-Blair</u>, University of Tennessee-Knoxville, USA</p> <p style="text-align: center;"><b>9:00 – 9:20 AM</b></p> <p><b>Adaptation of <i>Burkholderia cenocepacia</i> to the cystic fibrosis lung environment</b> <u>Silvia Cardona</u>, University of Manitoba, Winnipeg, MB</p>

<p>8:30 – 10:00 AM</p>	<p><b>9:20 – 9:40 AM</b>  <b>What determines the rate of antibiotic resistance evolution?</b>  <u>Brandon Findlay</u>, Concordia University, Montreal, QC</p> <p><b>9:40 – 10:00AM</b>  <b>The comprehensive antibiotic resistance database and the resistance gene identifier – prediction of antimicrobial resistance genes for genomic and metagenomic sequencing data</b>  <u>Andrew McArthur</u>, McMaster University, Hamilton, ON</p>	<p><b>9:20 – 9:40 AM</b>  <b>From acid mine drainage to enhanced bioleaching: Understanding and applying microbial communities from extreme mine waste environments</b>  <u>Nadia Mykytczuk</u>, Laurentian University, Sudbury, ON</p> <p><b>9:40 – 10:00AM</b>  <b>Mutualistic cross-feeding during nutrient limitation in a synthetic bacterial coculture</b>  <u>James McKinlay</u>, Indiana University, USA</p>	<p><b>9:20 – 9:40 AM</b>  <b><i>Shigella</i> type three secretion system reloaded</b>  <u>François-Xavier Campbell-Valois</u>, University of Ottawa, Ottawa, ON</p> <p><b>9:40 – 10:00AM</b>  <b>A heme relay from human hemoglobin to SbnI, a regulator of <i>Staphyloferrin B</i> biosynthesis in <i>S. aureus</i></b>  <u>Michael Murphy</u>, University of British Columbia, Vancouver, BC</p>
<p>10:00 – 10:45 AM</p>	<p><i>Coffee Break</i>  <i>Refreshments will be served</i></p> <p><b>Location:</b> Marshall McLuhan Hall 204 UC and Multi-purpose room (214, 220, 224 UC)</p>		
<p>10:45 AM – 12:15 PM</p>	<p><b>Session 10</b>  <b>Novel Therapeutics and Bacterial Chemosensation</b>  <i>Sponsored by Manitoba Chemosensory Biology Group</i></p>  <p><b>Chair:</b> Jonathan Dennis, Alberta  <b>Vice-Chair:</b> Kangmin Duan, Manitoba  <b>Location:</b> Armes 200</p> <p><b>10:45 – 11:15 AM</b>  <b>The natural history of antibiotics and resistance</b>  <b>Invited Keynote Speaker:</b>  <u>Gerry Wright</u>, McMaster University, Hamilton, ON</p>	<p><b>Session 11</b>  <b>Fungal Genomics and Diseases</b></p> <p><b>Chair:</b> Steve Harris, Manitoba  <b>Vice-Chair:</b> Deborah Court, Manitoba  <b>Location:</b> Armes 201</p> <p><b>10:45 – 11:15 AM</b>  <b>Lessons from high-throughput functional genomics analyses in <i>Neurospora crassa</i></b>  <b>Invited Keynote Speaker:</b>  <u>Katherine Borkovich</u>, University of California Riverside</p>	<p><b>Session 12</b>  <b>Indigenous Health and Water Security</b></p> <p><b>Chair:</b> Annemieke Farenhorst, Manitoba  <b>Vice-Chair:</b> Wendy Ross, NSERC CREATE H2O Program  <b>Location:</b> Armes 205</p> <p><b>10:45 – 11:15 AM</b>  <b>Water insecurity in Indigenous communities: Impacts beyond physical health</b>  <b>Invited Keynote Speaker:</b>  <u>Lalita Bharadwaj</u>, School of Public Health, University of Saskatchewan, Saskatoon, SK</p>


<p>10:45 AM – 12:15 PM</p>	<p><b>11:15 – 11:35 AM</b> <b>Anti-Virulence phage therapy</b> <u>Jonathan Dennis</u>, University of Alberta, Edmonton, AB</p> <p><b>11:35 – 11:55 AM</b> <b>Targeted method for control of <i>Campylobacter jejuni</i> and <i>Salmonella enterica</i> in broilers using single domain antibody-based approach</b> <u>Dea Shahinas</u>, AbCelex Technologies Inc., Mississauga, ON</p> <p><b>11:55 AM – 12:15 PM</b> <b>CDRD/LifeArc/Dstl - A novel collaboration for antibacterial drug discovery</b> <u>Sophie Yurist-Doutsch</u>, Centre for Drug Research and Development, Vancouver, BC</p>	<p><b>11:15 – 11:35 AM</b> <b>Characterization of fungal-algal interactions in biological soil crusts using culture-based and metagenomic approaches</b> <u>Steven Harris</u>, University of Manitoba, Winnipeg, MB</p> <p><b>11:35 – 11:55 AM</b> <b>CRISPR-based functional genomic platforms for gene deletions and modulating gene expression in <i>Candida</i> pathogens</b> <u>Rebecca Shapiro</u>, University of Guelph, Guelph, ON</p> <p><b>11:55 AM – 12:15 PM</b> <b><i>Cryptococcus neoformans</i> genomics influence human immunological responses</b> <u>Aleeza Gerstein</u>, University of Manitoba, Winnipeg, MB</p>	<p><b>11:15 – 11:35 AM</b> <b><i>Helicobacter pylori</i> in Indigenous Communities</b> <u>Pam Orr</u>, Health Sciences Centre, Winnipeg, MB</p> <p><b>11:35 – 11:55 AM</b> <b>Sucralose and Caffeine as Chemical Indicators of Fecal Contamination from Wastewater in Rural and Indigenous Communities</b> <u>Marsha Serville</u>, Environmental and Life Sciences Graduate Program, Trent University, Peterborough, ON</p> <p><b>11:55 AM – 12:15 PM</b> <b>The NSERC CREATE H2O Program for First Nations Water and Sanitation Security: Case Studies on Drinking Water Quality</b> <u>Annemieke Farenhorst</u> and <u>Wendy Ross</u>, University of Manitoba, Winnipeg, MB, &amp; <u>Audrey Brass</u>, Pine Creek First Nation, MB</p>
<p>12:15 – 1:20 PM</p>	<p><b>Lunch and Exhibitors</b> <b>Location:</b> Marshall McLuhan Hall 204 UC and Multi-purpose room (214, 220, 224 UC)</p>		
<p>1:30 – 3:00 PM</p>	<p style="text-align: center;"><b>STUDENT SYMPOSIUM II</b></p> <p style="text-align: center;"><b>Chairs:</b> Josh Neufeld, University of Waterloo, Waterloo, ON &amp; Denice Bay, University of Manitoba, Winnipeg, MB</p> <p style="text-align: center;">(6 timeslots - 12 min + 3 min questions each) <b>Location:</b> Killarney Room 210 UC</p> <p><b>1:30 – 1:45 PM</b> <b>Quantification and characterization of vancomycin-resistant Enterococci: A comparison of two wastewater treatment processes</b> <u>Haley Sanderson</u>, Queen's University, Kingston, ON</p>		





**STUDENT SYMPOSIUM II (Cont.)**

1:30 – 3:00 PM	<p><b>1:45 – 2:00 PM</b> <b>AB5 toxin-dependent inhibition of ganglioside-mimicking gut bacteria: a novel mechanism of bacterial competition</b> <u>Robert Patry</u>, University of Georgia, USA</p> <p><b>2:00 – 2:15 PM</b> <b>FNR is a regulator of Salmonella pathogenicity island 2 in <i>Salmonella Typhimurium</i></b> <u>Stefani Kary</u>, Trinity College Dublin, Ireland</p> <p><b>2:15 – 2:30 PM</b> <b>Comammox bacteria are the dominant ammonia oxidizers in rotating biological contactors of a municipal wastewater treatment plant</b> <u>Emilie Spasov</u>, University of Waterloo, Waterloo, ON</p> <p><b>2:30 – 2:45 PM</b> <b>Decoding Bad Bugs: Predicting antibiotic resistance phenotypes from genotype</b> <u>Kara Tsang</u>, McMaster University, Hamilton, ON</p> <p><b>2:45 – 3:00 PM</b> <b>Genotype-environment interactions lead to differential pigmentation among strains of human pathogenic yeast <i>Cryptococcus neoformans</i></b> <u>Himeshi Samarasinghe</u>, McMaster University, Hamilton, ON</p>
3:00 – 5:00 PM	<p><b>Poster Session II and Exhibitors</b> <i>Coffee Break and Cash Bar Refreshments will be served</i> <b>Location:</b> Marshall McLuhan Hall 204 UC and Multi-purpose room (214, 220, 224 UC)</p>
5:00 – 6:00 PM	<p><b>CSM Annual General Meeting</b> <i>All CSM members welcome.</i> <b>Location:</b> Killarney Room 210 UC</p>
6:00 – 9:00 PM	<p><b>Excursion to the Forks</b> (downtown Winnipeg) <b>Bus pick-up and drop-off: University Centre, 2nd Floor main entrance</b></p>
<b>Thursday – June 21, 2018</b>	
8:00 AM	<p><b>Registration</b> <b>Location:</b> 2nd floor University Centre (UC) Alcove</p>
9:00 – 10:00 AM	<p><b>Armand Frappier Outstanding Student Award Lecture</b> <i>Exploring a new mode of bacterial development, communication and competition</i> <b>Stephanie Jones</b>, McMaster University, Hamilton, ON <b>Location:</b> Killarney Room 210 UC</p> 

<p>10:00 – 10:30 AM</p>	<p><i>Coffee Break</i>  <i>Refreshments will be served</i>  <b>Location:</b> Marshall McLuhan Hall 204 UC and Multi-purpose room (214, 220, 224 UC)</p>		
<p>10:30 AM – 12:00 PM</p>	<p style="text-align: center;"><b>Infection &amp; Immunity Section Symposium</b></p> <p><b>Chair:</b> Georgina Cox, Guelph  <b>Vice-Chair:</b> Silvia Cardona, Manitoba  <b>Location:</b> Armes 200</p> <p style="text-align: center;"><b>10:30 – 10:45 AM</b>  <b><i>Staphylococcus aureus</i> requires the GraXRS regulatory system to adapt to the phagolysosomal compartment of macrophages</b>  <u>David Heinrichs</u>, University of Western Ontario, London, ON</p> <p style="text-align: center;"><b>10:45 – 11:00 AM</b>  <b>Phage Antibiotic Synergy (PAS): A promising treatment for chronic <i>Pseudomonas lung</i> infections</b>  <u>Carly Davis</u>, University of Alberta, Edmonton, AB</p> <p style="text-align: center;"><b>11:00 – 11:15 AM</b>  <b>The polysaccharide biosynthesis genes <i>tviBC</i> are required for capsule production, in vivo fitness and antibiotic resistance in multi-drug resistant <i>Acinetobacter baumannii</i></b>  <u>Sebastien Crepin</u>, University of Michigan Medical School, USA</p>	<p style="text-align: center;"><b>Applied &amp; Environmental Microbiology Section Symposium</b></p> <p><b>Chair:</b> Steven Short, Toronto Mississauga  <b>Vice-Chair:</b> Laura Hug, Waterloo  <b>Location:</b> Armes 201</p> <p style="text-align: center;"><b>10:30 – 10:45 AM</b>  <b>Response of P-cycling microbial communities during soil genesis and ecosystem development along a 6500 year chronosequence under lowland temperate rainforest in New Zealand</b>  <u>Kari Dunfield</u>, University of Guelph, Guelph, ON</p> <p style="text-align: center;"><b>10:45 – 11:00 AM</b>  <b>Production of alginate lyases by the bacteria isolated from seaweed wastes</b>  <u>Bidyut Mohapatra</u>, The University of the West Indies, Barbados</p> <p style="text-align: center;"><b>11:00 – 11:15 AM</b>  <b>Shining light on phototrophic bacteria: a syntrophy of teamwork for hydrocarbon degradation</b>  <u>Thomas Reid</u>, University of Windsor, Windsor, ON</p>	<p style="text-align: center;"><b>Molecular Genetics &amp; Cellular Microbiology Section Symposium</b></p> <p><b>Chair:</b> Shawn MacLellan, New Brunswick  <b>Vice-Chair:</b> Tracy Raivio, Alberta  <b>Location:</b> Armes 205</p> <p style="text-align: center;"><b>10:30 – 10:45 AM</b>  <b>SCAB79581 is a ThiF family protein that promotes coronafacoyl phytotoxin production and virulence in the common scab pathogen <i>Streptomyces scabies</i></b>  <u>Dawn Bignell</u>, Memorial University, St. John's, NFL</p> <p style="text-align: center;"><b>10:45 – 11:00 AM</b>  <b>Revealing antimicrobial resistance gene mobility trends using &gt;15000 replicons</b>  <u>Baofeng Jia</u>, Simon Fraser University, Burnaby, BC</p> <p style="text-align: center;"><b>11:00 – 11:15 AM</b>  <b>The PhoPQ two-component regulatory system controls omptin protease activity in <i>enterobacteriaceae</i></b>  <u>Joseph McPhee</u>, Ryerson University, Toronto, ON</p>

<p>10:30 AM – 12:00 PM</p>	<p><b>11:15 – 11:30 AM</b> <b>Tracking phage through fecal microbiota transfer</b> <u>Hiba Shareefdeen</u>, McMaster University, Hamilton, ON</p> <p><b>11:30 – 11:45 AM</b> <b>Cephalosporins with improved activity against carbapenem-resistant metallo-<math>\beta</math>-lactamase-producing Gram negative bacteria</b> <u>Carol Tanner</u>, University of Waterloo, Waterloo, ON</p> <p><b>11:45 AM – 12:00 PM</b> <b>Development of a “National MALDI Database” to enable Provincial laboratories to identify rare and novel clinical bacterial isolates using MALDI-TOF MS analysis</b> <u>Patrick Chong</u>, NML - Public Health Agency of Canada, Winnipeg, MB</p>	<p><b>11:15 – 11:30 AM</b> <b>RNA-Seq of <i>Delftia acidovorans</i> RAY209 during colonization of canola roots reveals strong plant-growth promoting behaviour</b> <u>Jordyn Bergsveinson</u>, University of Regina, Regina, SK</p> <p><b>11:30 – 11:45 AM</b> <b>HMMER or SPAdes? Informing bioinformatics tool choice with a systematic comparison of microbiome methods</b> <u>Michael Hall</u>, Dalhousie University, Dartmouth, NS</p> <p><b>11:45 AM– 12:00 PM</b> <b>Drinking water security in Manitoba First Nations communities</b> <u>Kristy Anderson</u>, University of Manitoba, Winnipeg, MB</p>	<p><b>11:15 – 11:30 AM</b> <b>The lysogenic conversion of <i>Stenotrophomonas maltophilia</i> strains by temperate bacteriophages DLP3 and DLP4</b> <u>Danielle Peters</u>, University of Alberta, Edmonton, AB</p> <p><b>11:30 – 11:45 AM</b> <b>Type VI Secretion System Dynamics and Modeling</b> <u>Maria Stietz</u>, University of Calgary, Calgary, AB</p> <p><b>11:45 AM– 12:00 PM</b> <b>Molecular basis for immunity recognition of a type VII secretion system exported antibacterial toxin</b> <u>Timothy Klein</u>, McMaster University, Hamilton, ON</p>
<p>12:00 – 1:20 PM</p>	<p><b>Lunch</b> <i>Location:</i> Marshall McLuhan Hall 204 UC and Multi-purpose room (214, 220, 224 UC)</p>		
<p>1:30 – 3:00 PM</p>	<p><b>Postdoctoral Research Symposium</b> <i>Chair:</i> Josh Neufeld, University of Waterloo, Waterloo, ON <i>Location:</i> Killarney Room 210 UC</p> <p>(12 min + 3 min questions each)</p> <p><b>1:30 – 1:45 PM</b> <b>Development of microbial life detection technologies for future astrobiology missions</b> <u>Isabelle Raymond-Bouchard</u>, McGill University, Montreal, QC</p> <p><b>1:45 – 2:00 PM</b> <b>Characterization of the <i>Citrobacter rodentium</i> Cpx envelope stress response and its role in host infection</b> <u>Stefanie Vogt</u>, University of British Columbia, Vancouver, BC</p> <div data-bbox="1110 1331 1474 1499" style="text-align: right;">  </div>		

1:30 – 3:00 PM	<p><b>Postdoctoral Research Symposium (Cont.)</b></p> <p><b>2:00 – 2:15 PM</b>  <b>Targeting a peptide transporter for drug delivery</b>  <u>Dinesh Fernando</u>, St. Jude Childrens Research Hospital, USA</p> <p><b>2:15 – 2:30 PM</b>  <b>Spatial competition in a model multispecies biofilms is mediated by extracellular matrix interactions and determines community morphology</b>  <u>Sean Booth</u>, Singapore Centre for Environmental Life Sciences Engineering, Singapore</p> <p><b>2:30 – 2:45 PM</b>  <b>Visualizing the role of alpha toxin in real time during <i>Staphylococcus aureus</i> sepsis</b>  <u>Bas Surewaard</u>, University of Calgary, Calgary, AB</p> <p><b>2:45 – 3:00 PM</b>  <b>A novel, non-immunity-mediated resistance to T6SS attack</b>  <u>Steven Hersch</u>, University of Calgary, Calgary, AB</p>	
3:00 – 5:00 PM	<p><b>Poster Session III</b>  <i>Coffee Break and Cash Bar Refreshments will be served</i></p> <p><b>Location:</b> Marshall McLuhan Hall 204 UC and Multi-purpose room (214, 220, 224 UC)</p>	
5:00 – 6:00 PM	<p><b>CSM MURRAY AWARD FOR CAREER ACHIEVEMENT</b>  <i>Sponsored by: Canadian Science Publishing</i></p> <p><b>The fourteen steps to relevance</b>  <u>Dr. Gregor Reid</u>, Western University and Lawson Health Research Institute, London, ON</p> <p><b>Location:</b> Killarney Room 210 UC</p>	
6:00 – 6:15 PM	<p><b>Invitation to next year's meeting from the CSM 2019 Chairs</b>  <b>Vincent Burrus &amp; Louis-Charles Fortier</b>, Université de Sherbrooke, Sherbrooke, QC</p> <p><b>Location:</b> Killarney Room 210 UC</p>	
7:00 PM	<p><b>President's Banquet &amp; Awards Presentations</b></p> <p><b>The MET</b>          281 Donald Street,          Winnipeg, MB, R3C 1M9</p> <p><i>Come join us and attend the hat ceremony!          Bring your dancing shoes!</i></p> <p>Transportation will be provided to and from the banquet.  <b>Bus pick-up: 6:15 – 6:30 PM, UC, 2nd Floor main entrance</b>  <b>Drop-off: UC, 2nd Floor main entrance</b></p>	