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Impact of repeated treatments of the pesticides chlorpyrifos or tebuconazole on soil microorganisms using alternative methods

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CSM Annual Conference Scientific Program


| Tuesday – June 20, 2017 | | |
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| 8:15 AM | On-Site Registration Science Teaching Complex (STC) Main Lobby | |
| 9:00 AM – 12:30 PM | <p style="text-align: center;">PROFESSIONAL DEVELOPMENT WORKSHOP <i>Chairs:</i> Teresa de Kievit & Denice Bay, University of Manitoba, Winnipeg, MB <i>Location:</i> STC 0040</p> <p>9:00 – 9:10 AM: Welcome and introductions</p> <p>9:10 – 10:00 AM: Tips and tools for applying graphic design in science presentation and research Denice Bay, University of Manitoba, Winnipeg, MB</p> <p>10:00 – 10:10 AM: bio-break / leg stretch and mingle</p> <p>10:10 – 11:00 AM: Bench and beyond: identifying skills and career directions for biologists Christine Kampen Robinson, University of Waterloo, Waterloo, ON</p> <p>11:00 – 11:20 AM: Coffee Break 11:20 AM – 12:20 PM: Panel Discussion Q&A 12:20 – 12:30 PM: Closing remarks</p> | <p style="text-align: center;">9:30 – 11:00 AM CSM Executive Meeting <i>Location:</i> STC 1019</p> |
| | <p style="text-align: center;">FORUM FOR MICROBIOLOGY EDUCATION (FOME) WORKSHOP <i>Chairs:</i> Tanya Noel, University of Windsor, Windsor, ON & Josie Libertucci, University of Michigan, MI, USA</p> <p>1:00 – 1:10 PM: Welcome and introductions</p> <p>1:10 – 2:40 PM: Keynote: Re-thinking 21st century education - #microlearning, Karen Smith, University of British Columbia, Vancouver, BC</p> <p>2:40 – 3:10 PM: Break/poster-viewing</p> <p>3:10 – 3:25 PM: CRISPR-Cas for microbiology students Marie Laurence Lemay & Alexander Hynes, Université Laval, Ville de Québec, QC</p> <p>3:25 – 3:55 PM: Identifying and addressing misconceptions in microbiology Jennifer Geddes-McAlister, Max Planck Institute of Biochemistry, Germany</p> <p>3:55 – 4:25 PM: Reimaging the Winogradsky lab: using custom-built columns and case studies to engage students and teach critical thinking Wendy Keenleyside, University of Guelph, Guelph, ON</p> <p>4:25 – 4:30 PM: Wrap up</p> | <p style="text-align: center;">11:30 AM – 1:00 PM CSM Council Meeting <i>Location:</i> STC 1019</p> |
| 1:00 – 4:30 PM STC 0040 | <p style="text-align: center;">FORUM FOR MICROBIOLOGY EDUCATION (FOME) WORKSHOP <i>Chairs:</i> Tanya Noel, University of Windsor, Windsor, ON & Josie Libertucci, University of Michigan, MI, USA</p> <p>1:00 – 1:10 PM: Welcome and introductions</p> <p>1:10 – 2:40 PM: Keynote: Re-thinking 21st century education - #microlearning, Karen Smith, University of British Columbia, Vancouver, BC</p> <p>2:40 – 3:10 PM: Break/poster-viewing</p> <p>3:10 – 3:25 PM: CRISPR-Cas for microbiology students Marie Laurence Lemay & Alexander Hynes, Université Laval, Ville de Québec, QC</p> <p>3:25 – 3:55 PM: Identifying and addressing misconceptions in microbiology Jennifer Geddes-McAlister, Max Planck Institute of Biochemistry, Germany</p> <p>3:55 – 4:25 PM: Reimaging the Winogradsky lab: using custom-built columns and case studies to engage students and teach critical thinking Wendy Keenleyside, University of Guelph, Guelph, ON</p> <p>4:25 – 4:30 PM: Wrap up</p> | |



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| <p>4:30 – 5:30 PM STC 0040</p> | <p>NSERC GRANTS INFORMATION SESSION</p> <p>This presentation includes the review process of the Discovery Grants Program, the composition of the Genes, Cells and Molecules (1501) Evaluation Group, the 2017 Discovery Grants (DG) and Research Tools & Instruments (RTI) Competition Results, NSERC program updates, and important information for the 2018 DG and RTI Competitions.</p> <p><i>Presenter: Dr. Marie-Pierre Schippers, Program Officer, NSERC</i></p>  |
| <p>5:30 – 9:30 PM STC Lobby</p> <p>6:30 – 6:40 PM STC 1012</p> | <p>Welcome & Keynote Reception <i>Come join us for the Keynote Reception from 5:30 PM, enjoy the Welcome address and the Keynote talk, stay after to discuss the talk over drinks and snacks!</i></p> <p>Welcome from CSM 2017 Co-Chairs Josh Neufeld and Laura Hug, University of Waterloo, Waterloo, ON</p> |
| <p>6:40 – 7:30 PM STC 1012</p> | <p>KEYNOTE LECTURE <i>Sponsored by CIHR III</i></p> <p>No one has to read this crap: a guide to telling stories about science Ed Yong, Science Writer for the Atlantic. Author of “I Contain Multitudes: The Microbes Within Us and a Grand View of Life.”</p>  |


Wednesday – June 21, 2017

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| <p>8:00 AM</p> | <p>On-Site Registration Science Teaching Complex (STC) Main Lobby</p> | | |
| <p>8:30 – 10:00 AM</p> | <p>Microbial Diversity (Unified Theme)</p> <p>Chair: Janet Hill, U Sask Vice-Chair: Jen Stearns, McMaster Location: STC 0010</p> <p>8:30 – 9:00 AM Invisible influence: the microbiome in precision medicine <i>Invited speaker: Dr. Jack Gilbert, University of Chicago, Chicago, USA</i></p> | <p>Microorganisms and Ecosystem Services (AEM)</p> <p>Chair: Robin Slawson, WLU Vice-Chair: Barb Butler, Waterloo Location: STC 0020</p> <p>8:30 – 9:00 AM Identifying and quantifying microbial interdependencies that underpin ocean productivity <i>Invited speaker: Dr. Erin Bertrand, Dalhousie University, NS</i></p> | <p>Microbial Systems Biology (MGCM)</p> <p>Chair: Gabriel Moreno-Hagelsieb, WLU Vice-Chair: Geoff Horsman, WLU Location: STC 0040</p> <p>8:30 – 9:00 AM Systematic identification of a class of bacterial effectors with novel regulatory activities <i>Invited speaker: Dr. Alex Ensminger, University of Toronto, Toronto, ON</i></p> |


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| | <p>9:00 – 9:15 AM Structural and functional characterization of environmental antibiotic resistance enzymes reveals new mechanistic diversity <u>Peter Stogios</u>, University of Toronto, Toronto, ON</p> <p>9:15 – 9:30 AM Sand harbours distinct communities of attached and interstitial bacteria and protists <u>Vera Tai</u>, University of Western Ontario, London, ON</p> <p>9:30 – 9:45 AM Culture-enriched metagenomic sequencing of the cystic fibrosis lung microbiota <u>Fiona Whelan</u>, McMaster University, Hamilton, ON</p> <p>9:45 – 10:00 AM When in drought: the root microbiome under water stress <u>Connor Fitzpatrick</u>, University of Toronto, Toronto, ON</p> | <p>9:00 – 9:15 AM Ecological perspectives on the degradation of lignocellulosic polymers by bacteria and fungi in forest soil <u>Roland Wilhelm</u>, University of British Columbia, Vancouver, BC</p> <p>9:15 – 9:30 AM Impact of repeated treatments of the pesticides Chlorpyrifos or Tebuconazole on soil microorganisms using alternative methods <u>Veronika Storck</u>, Institut National de la Recherche Agronomique, Dijon, France</p> <p>9:30 – 9:45 AM The tale of a neglected energy source for soil microbial communities <u>Sarah Piché-Choquette</u>, Armand-Frappier Institute - INRS, Laval, QC</p> <p>9:45 – 10:00 AM Adaptive significance of quorum sensing-dependent regulation of rhamnolipids by integration of growth rate in <i>Burkholderia glumae</i>: a trade-off between survival and efficiency <u>Arvin Nickzad</u>, INRS-Institut Armand Frappier, Laval, QC</p> | <p>9:00 – 9:15 AM <i>Sinorhizobium meliloti</i> PHB cycle mutants display altered metabolite profile in nitrogen limited media <u>Maya D'Alessio</u>, University of Waterloo, Waterloo, ON</p> <p>9:15 – 9:30 AM Comparative metabolic analysis of <i>Komagataeibacter</i> spp. grown in different carbon sources <u>Sierra Dargan</u>, University of Ontario Institute of Technology, Oshawa, ON</p> <p>9:30 – 9:45 AM Differential expression of non-coding RNAs by the pqs quorum sensing system in <i>Pseudomonas aeruginosa</i> <u>François D'Heygere</u>, INRS-Institut Armand Frappier, Laval, QC</p> <p>9:45 – 10:00 AM Studying the role of the AdeIJK RND efflux pump and its unlinked regulator AdeN in resistance and virulence in <i>Acinetobacter baumannii</i> <u>Mark Unger</u>, University of Manitoba, Winnipeg, MB</p> |
| <p>10:00 – 10:30 AM STC Main Lobby</p> | <p><i>Coffee and Tea Break</i> <i>Refreshments will be served</i></p> | | |


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| <p>10:30AM – 12:00 PM</p> | <p style="text-align: center;">Climate Change Microbiology (AEM)</p> <p>Chair: Virginia Walker, Queen's Vice-Chair: Jackson Tsuji, Waterloo Location: STC 0010</p> <p style="text-align: center;">10:30 – 11:00 AM Climate change microbiology: insights from freshwater cyanobacteria <i>Invited speaker:</i> Dr. Kathryn Cottingham, Dartmouth University, NS</p> <p style="text-align: center;">11:00 – 11:15 AM Microbial community development in artificial soil columns as affected by water table fluctuations <u>Geertje Pronk</u>, University of Waterloo, Waterloo, ON</p> <p style="text-align: center;">11:15 – 11:30 AM Playing with fire in the Alaskan boreal forest <u>Virginia Walker</u>, Queen's University, Kingston, ON</p> <p style="text-align: center;">11:30 – 11:45 AM Going beyond the surface: microbial interactions in deeper horizons influence greenhouse gas emissions in a sandy Ontario agricultural soil <u>Lori Phillips</u>, Agriculture and Agri-Food Canada, Harrow, ON</p> <p style="text-align: center;">11:45AM – 12:00 PM Emergence of cyanobacteria in a large macrophyte-dominated lake <u>Tyler Harrow-Lyle</u>, University of Ontario Institute of Technology, Oshawa, ON</p> | <p style="text-align: center;">Epidemiology in a Changing Pathogen Landscape (I&I) <i>Sponsored by CIHR III</i></p>  <p>Chair: Lori Burrows, McMaster Vice-Chair: France Daigle, U de Montreal Location: STC 0020</p> <p style="text-align: center;">10:30 – 11:00 AM Enabling global genomic epidemiology - a key tool for public health and microbiology research <i>Invited speaker:</i> Dr. Fiona Brinkman, Simon Fraser University, BC</p> <p style="text-align: center;">11:00 – 11:15 AM Experimental evolution of <i>Pseudomonas syringae</i> on a novel plant host <u>Marcus Dillon</u>, University of Toronto, Toronto, ON</p> <p style="text-align: center;">11:15 – 11:30 AM Development of a Single Nucleotide Variant (SNV)-based subtyping scheme for the highly clonal <i>Salmonella</i> serovar Heidelberg <u>Geneviève Labbé</u>, Public Health Agency of Canada, Guelph, ON</p> | <p style="text-align: center;">Structural Biology (MGCM)</p> <p>Chair: Brendan McConkey, Waterloo Vice-Chair: Joel Weadge, WLU Location: STC 0040</p> <p style="text-align: center;">10:30 – 11:00 AM Discovery of a novel flagellin family in diverse bacteria that forms enzymatically active flagella <i>Invited speaker:</i> Dr. Andrew Doxey, University of Waterloo, ON</p> <p style="text-align: center;">11:00 – 11:15 AM Phage moron JBD26-61 promotes resistance to phage infection by disrupting cyclic di-GMP mediated type-iv pilus biosynthesis <u>Veronique Taylor</u>, University of Toronto, Toronto, ON</p> <p style="text-align: center;">11:15 – 11:30 AM Bacterial tyrosine phosphorylation of a multicargo chaperone regulates hierarchical type III effector secretion and supports enteric disease <u>Cameron Runte</u>, Dalhousie University, Halifax, NS</p> <p style="text-align: center;">11:30 – 11:45 AM Deciphering the biosynthetic logic of bacterial cell surface phosphonate tailoring: towards pathway-specific inhibitors <u>Geoff Horsman</u>, Wilfrid Laurier University, Waterloo, ON</p> |
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| | | <p>11:30 – 11:45 AM Identification of food-borne pathogens using matrix-assisted laser desorption/ionization time of flight mass spectrometry (MALDI TOF MS) <u>Anli Gao</u>, University of Guelph, Guelph, ON</p> <p>11:45AM – 12:00 PM Screen for Host defence peptide resistance and affiliated mechanisms in clinical associates of inflammatory bowel disease-associated <i>Escherichia coli</i> <u>Youn Hee Cho</u>, Ryerson University, Toronto, ON</p> | <p>11:45AM – 12:00 PM Characterization of FHA domains involved in <i>Saccharomyces Cerevisiae</i> dNTP Regulation and double-strand break repair <u>Geburah Straker</u>, University of Waterloo, Waterloo, ON</p> |
| <p>12:00 – 2:45 PM</p> | <p>Lunch, Poster Session I, and Exhibitors Location: Physical Activities Complex (PAC)</p> | | |
| <p>1:00 – 2:45 PM Physical Activities Complex (PAC)</p> | <p>WORKSHOPS</p> <p>1:00 – 1:30 PM: GE Healthcare Life Sciences Filtration 101- techniques and advances in filtration <u>Fernand Girard</u>, Bioprocess Specialist, GE Healthcare Life Sciences</p> <p>2:00 – 2:30 PM: Beckman Coulter, Inc Flow cytometric analysis of bacteria samples <u>Melis McHenry</u>, Beckman Coulter Life Sciences</p> | |   |


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| <p>3:00 – 4:30 PM STC 1012</p> | <p style="text-align: center;">STUDENT SYMPOSIUM I <i>Chairs:</i> Teresa de Kievit & Denice Bay, University of Manitoba, Winnipeg, MB <i>(12 min + 3 min questions each)</i></p> <p>3:00 – 3:15 PM - AEM SSC 01 Neonicotinoid-induced pathogen susceptibility is mitigated by <i>Lactobacillus plantarum</i> immune stimulation in a <i>Drosophila melanogaster</i> model <u>Brendan Daisley</u>, University of Western Ontario, London, ON</p> <p>3:15 – 3:30 PM - II SSC 01 Spontaneous preterm birth and the vaginal microbiome <u>Aline Freitas</u>, University of Saskatchewan, Saskatoon, SK</p> <p>3:30 – 3:45 PM - MGCM SSC 02 Characterization of an anti-CRISPR that can convert a type I-E CRISPR-Cas complex into a transcriptional activator <u>Marios Mejdani</u>, University of Toronto, Toronto, ON</p> <p>3:45 – 4:00 PM - AEM SSC 02 Antimicrobial resistance gene surveillance in the receiving waters of an upgraded wastewater treatment plant <u>Claire Freeman</u>, University of Regina, Regina, SK</p> <p>4:00 – 4:15 PM - II SSC 03 Investigating the role of antibiotics and adherent-invasive <i>Escherichia coli</i> in the pathogenesis of Crohn's disease <u>Alexander Oberc</u>, McMaster University, Hamilton, ON</p> <p>4:15 – 4:30 PM - MGCM SSC 03 A transcriptional regulatory system governs anti-CRISPR expression and phage viability <u>Sabrina Stanley</u>, University of Toronto, Toronto, ON</p> |
| <p>4:30 – 5:00 PM STC Main Lobby</p> | <p><i>Coffee and Tea Break</i> <i>Refreshments will be served</i></p> |
| <p>5:00 – 6:00 PM STC 1012</p> | <p>Fisher Award Lecture <i>Sponsored by Fisher Scientific</i></p>  <p>Understanding and manipulating the plant holobiont Dr. Étienne Yergeau, INRS-Institut Armand Frappier, Laval, Quebec</p> <p style="text-align: right;"><small>Part of Thermo Fisher Scientific</small></p> |
| <p>6:00 – 9:00 PM Federation Hall</p> | <p>Opening Reception</p> |


Thursday — June 22, 2017

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| 8:00 AM | <p>On-Site Registration Science Teaching Complex (STC) Main Lobby</p> | | |
| 8:30 – 10:00 AM | <p>Computational Methods in Microbiology (Unified Theme)</p> <p><i>Chair:</i> Andrew Doxey, Waterloo <i>Vice-Chair:</i> Briallen Lobb, Waterloo Location: STC 0010</p> <p>8:30 – 9:00 AM Enterotypes, autism, aliens and the elderly: the microbiome as a composition <i>Invited speaker:</i> Dr. Greg Gloor, University of Western Ontario, ON</p> <p>9:00 – 9:15 AM Data-driven discovery of small molecules from the human microbiota <u>Walaal Mousa</u>, McMaster University, Hamilton, ON</p> <p>9:15 – 9:30 AM Predictive modelling of a batch filter mating process <u>Brian Ingalls</u>, University of Waterloo, Waterloo, ON</p> <p>9:30 – 9:45 AM PhageTerm: a fast and user-friendly software to determine bacteriophage termini and packaging mode using randomly fragmented: NGS Data <u>Julian Garneau</u>, Université de Sherbrooke, Quebec, QC</p> | <p>Microbial Arms Race: Antibiotics and Resistance (I&I) <i>Sponsored by CIHR III</i></p>  <p>Institute of Infection and Immunity Institut des maladies infectieuses et immunitaires</p> <p><i>Chair:</i> Marie Elliot, McMaster <i>Vice-Chair:</i> Joe McPhee, Ryerson Location: STC 0020</p> <p>8:30 – 9:00 AM A thermosensory diguanylate cyclase that mediates temperature-dependent bacterial biofilm development <i>Invited speaker:</i> Dr. Joe Harrison, University of Calgary, AB</p> <p>9:00 – 9:15 AM Does an epidemic and transmissible cystic fibrosis strain of <i>Pseudomonas aeruginosa</i> employ the type six secretion system in strain replacement? <u>Jenny Nguyen</u>, University of Calgary, Calgary, AB</p> <p>9:15 – 9:30 AM Functional relationships of RND efflux pumps in <i>Staphylococcus aureus</i> <u>Jamie Halucha</u>, University of Western Ontario, London, ON</p> | <p>Microbial Origins and Symbioses (Unified theme)</p> <p><i>Chair:</i> Kirsten Müller, Waterloo <i>Vice-Chair:</i> Andrew Cameron, Regina Location: STC 0040</p> <p>8:30 – 9:00 AM One plus one equals one: historical and modern perspectives on symbiosis <i>Invited speaker:</i> Dr. John Archibald, Dalhousie University, NS</p> <p>9:00 – 9:15 AM Rapid experimental evolution of antibiotic resistance <u>Brandon Findlay</u>, Concordia University, Montreal, QC</p> <p>9:15 – 9:30 AM Characterization of novel type VI secretion system effectors in a plant commensal bacterium <u>Nathan Bullen</u>, McMaster University, Hamilton, ON</p> <p>9:30 – 9:45 AM The mammalian skin microbiome <u>Ashley Ross</u>, University of Waterloo, Waterloo, ON</p> <p>9:45 – 10:00 AM Drivers behind the selection of core fish gut microbiome <u>Subba Rao Chaganti</u>, University of Windsor, Windsor, ON</p> |




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| | <p>9:45 - 10:00 AM Amplytica: bringing microbial ecology to the cloud <u>Lee Bergstrand</u>, Thompson Rivers University, Kamloops, BC</p> | <p>9:30 – 9:45 AM Functional genomic analysis of echinocandin resistance in <i>Candida albicans</i> <u>Tavia Caplan</u>, University of Toronto, Toronto, ON</p> <p>9:45 – 10:00 AM Discovery of an antibiotic effective against the opportunistic pathogen, <i>Acinetobacter baumannii</i> <u>Ashley Williams</u>, University of Regina, Regina, SK</p> | |
| <p>10:00 – 10:30 AM STC Main Lobby</p> | <p><i>Coffee and Tea Break</i> <i>Refreshments will be served</i></p> | | |
| <p>10:30 AM – 12:00 PM</p> | <p>Synthetic (Micro)Biology (MGCM) Chair: Trevor Charles, Waterloo Vice-Chair: Brian Ingalls, Waterloo Location: STC 0010</p> <p>10:30 – 11:00 AM Genome engineering: Synthetic genomes Invited Speaker: Dr. Bogumil Karas, University of Western Ontario, London, ON</p> <p>11:00 – 11:15 AM iGEM Showcase Presented by: University of Waterloo iGEM team</p> | <p>Viruses, Vaccination & Health (I&I) Sponsored by CIHR III</p>  <p>Chair: Alexander Hynes, Université Laval Vice-Chair: Marc Aucoin, Waterloo Location: STC 0020</p> <p>10:30 – 11:00 AM Phage morons modulate pathogenesis of <i>Pseudomonas aeruginosa</i> Invited speaker: Dr. Karen Maxwell, University of Toronto, ON</p> | <p>Microbes in Unusual Environments (AEM) Chair: Kim Gilbride, Ryerson Vice-Chair: Kesen Ma, Waterloo Location: STC 0040</p> <p>10:30 – 11:00 AM Something from nothing? The creation of a new microbial ecosystem 2500 meters below the surface Invited speaker: Dr. Kelly Wrighton, Ohio State University, Ohio, USA</p> <p>11:00 – 11:15 AM Soil factors influence archaeal ammonia oxidizers but not methanotrophs in arctic polar desert soils <u>Martin Brummell</u>, University of Waterloo, Waterloo, ON</p> |

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| <p>10:00AM – 12:00 PM</p> | <p>11:15 – 11:30 AM Mutation-based conformational analysis of a new S-Adenosylmethionine Riboswitch structure in <i>Burkholderia thailandensis</i> <u>Vesta Korniakova</u>, INRS-Institut Armand Frappier, Laval, QC</p> <p>11:30 – 11:45 AM The development of a comprehensive CRISPR-Cas9 toolkit for <i>Bacillus subtilis</i>, and its application to strain engineering for biomanufacturing purposes <u>Adam Westbrook</u>, University of Waterloo, Waterloo, ON</p> <p>11:45AM – 12:00 PM Semi-rational evolution of the RhlA Enzyme from <i>Pseudomonas aeruginosa</i> for the synthesis of industrially relevant rhamnolipids <u>Carlos Eduardo Dulcey</u>, INRS-Institut Armand Frappier, Laval, QC</p> | <p>11:00 – 11:15 AM Validation of UV inactivation of enteric viruses in drinking water and wastewater <u>Nicole McLellan</u>, University of Guelph, Guelph, ON</p> <p>11:15 – 11:30 AM <i>In vitro</i> attenuation of a virulent swine isolate of "Brachyspira hampsonii" <u>Janet Hill</u>, University of Saskatchewan, Saskatoon, SK</p> <p>11:15 – 11:30 AM Discovery and development of new host-targeted antiviral drugs <u>Patrick Slaine</u>, Dalhousie University, Halifax, NS</p> <p>11:45AM – 12:00 PM An evolutionary arms race: identification of the first HIV-1 antagonist against the interferon induced antiviral protein, HERC5 <u>Divjyot Kochar</u>, University of Western Ontario, London, ON</p> | <p>11:15 – 11:30 AM The impact of water quality on the root-associated microbial communities of wetland plants <u>Lindsey Clairmont</u>, Wilfrid Laurier University, Waterloo, ON</p> <p>11:30 – 11:45 AM Microbial carbon transformations in the western arctic ocean revealed through analysis of metagenome-assembled genomes <u>David Colatiano</u>, Concordia University, Montreal, QC</p> <p>11:45AM – 12:00 PM Dynamics of under-ice microbial community in freshwater lakes: reconstructing metabolism to gain insight about ecological roles <u>Patricia Tran</u>, Concordia University, Montreal, QC</p> |
| <p>12:00 – 2:45 PM</p> | <p>Lunch, Poster Session II, and Exhibitors Location: Physical Activities Complex (PAC)</p> | | |
| <p>1:00 – 2:45 PM Physical Activities Complex (PAC)</p> | <p>WORKSHOPS</p> <p>1:00 – 1:30 PM: Illumina Using Illumina's next generation sequencing technology to understand microbes Dr. Michael Smith, Executive Sequencing and Data Analysis Specialist</p> <p>2:00 – 2:30 PM: DNA GenoTek Strategies and performance benchmarks for microbiome sampling & stabilization Dr. Heloise Breton, DNA Genotek, Microbiome product specialist</p>   | | |

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| <p>3:00 – 4:30 PM STC 1012</p> | <p style="text-align: center;">STUDENT SYMPOSIUM II <i>Chairs: Teresa de Kievit & Denice Bay, University of Manitoba, Winnipeg, MB</i> <i>(12 min + 3 min questions each)</i></p> <p>3:00 – 3:15 PM - AEM SSC 03 Characterization of Pap-Pit: a broadly distributed bipartite phosphate transport system in Bacteria and Archaea <u>Daniel Hsieh</u>, McMaster University, Hamilton, ON</p> <p>3:15 – 3:30 PM - II SSC 04 Comparative analysis of antimicrobial susceptibility and biofilm formation in <i>Escherichia coli</i> expressing laterally transmitted quaternary ammonium compound efflux pumps <u>Carmine Slipski</u>, University of Manitoba, Winnipeg, MB</p> <p>3:30 – 3:45 PM - MGCM SSC 01 A novel mode of bacterial development is triggered by interkingdom interactions and airborne signals <u>Stephanie Jones</u>, McMaster University, Hamilton, ON</p> <p>3:45 – 4:00 PM - MGCM SSC 04 Structure and molecular basis of catalysis of the peptidoglycan O-acetyltransferase catalytic domain <u>David Sychantha</u>, University of Guelph, Guelph, ON</p> <p>4:00 – 4:15 PM - AEM SSC 04 Forests fueling lake sediments: exploring microbial decomposers responsible for greenhouse gas production <u>Kurt Yakimovich</u>, Laurentian University, Sudbury, ON</p> <p>4:15 – 4:30 PM - II SSC 02 Regulatory evolution drives immune evasion by <i>Salmonella typhimurium</i> <u>Bushra Ilyas</u>, McMaster University, Hamilton, ON</p> |
| <p>4:30 – 5:00 PM STC Main Lobby</p> | <p><i>Coffee and Tea Break</i> <i>Refreshments will be served</i></p> |
| <p>5:00 – 6:00 PM STC 1012</p> | <p>KEYNOTE LECTURE <i>Sponsored by CIHR III</i></p> <div style="display: flex; align-items: center;">  <div style="font-size: small;"> <p>CIHR Institute of Infection and Immunity IRSC Institut des maladies infectieuses et immunitaires</p> </div> </div> <p>“Follow the Water”: Exploring the deep hydrogeosphere and the subsurface terrestrial biosphere <u>Dr. Barbara Sherwood Lollar</u>, University of Toronto, Toronto, ON 2016 NSERC John C. Polanyi award recipient; 2016 Companion to the Order of Canada</p> |
| <p>6:00 – 7:30 PM STC 0010</p> | <p>CSM Annual General Meeting <i>All CSM members welcome.</i></p> |
| <p>7:30 – 9:00 PM REV - Great Hall</p> | <p>Student Mixer <i>Refreshments, games, door prizes, and connections</i></p> |

| Friday — June 23, 2017 | | | |
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| 8:15 AM | On-Site Registration Science Teaching Complex (STC) Main Lobby | | |
| 9:00 – 10:00 AM STC 1012 | Armand Frappier Outstanding Student Award Lecture Experimental and in silico guided approaches to engineering the rhizobium – legume symbiosis Dr. George diCenzo , McMaster University, Hamilton, ON  | | |
| 10:00 – 10:30 AM STC Main Lobby | Coffee and Tea Break Refreshments will be served | | |
| 10:30AM – 12:00 PM | <p style="text-align: center;">Applied & Environmental Microbiology Section Symposium</p> <p><i>Chair:</i> Andrea Kirkwood, UOIT <i>Vice-Chair:</i> Steve Short, UTM Location: STC 0010</p> <p style="text-align: center;">10:30 – 10:45 AM Microbial biogeography of the grand river reveals strong spatial gradients and flow-dependent allochthonous microorganisms <u>Sara Coyotzi Alcaraz</u>, University of Waterloo, Waterloo, ON</p> <p style="text-align: center;">10:45 – 11:00 AM Evidence for rapid adaptation during clonal expansion of the white nose syndrome pathogen, <i>Pseudogymnoascus destructans</i>, in North America <u>Adrian Forsythe</u>, McMaster University, Hamilton, ON</p> | <p style="text-align: center;">Infection & Immunity Section Symposium</p> <p><i>Chair:</i> Charles Dozois, INRS <i>Vice-Chair:</i> Jennifer Geddes-McAlister, Max Planck Institute of Biochemistry Location: STC 0020</p> <p style="text-align: center;">10:30 – 10:45 AM Enzyme immobilization on biomaterial surfaces for prevention of <i>Pseudomonas aeruginosa</i> biofilms <u>Dalal Asker</u>, University of Toronto, Toronto, ON</p> <p style="text-align: center;">10:45 – 11:00 AM Quantitative proteomics of the host-pathogen interplay during <i>Salmonella typhimurium</i> infection <u>Jennifer Geddes-McAlister</u>, Max Planck Institute of Biochemistry, Planegg, Germany</p> | <p style="text-align: center;">Molecular Genetics & Cellular Microbiology Section Symposium</p> <p><i>Chair:</i> Shawn MacLellan, UNB <i>Vice-Chair:</i> Michael Hynes, UCalgary Location: STC 0040</p> <p style="text-align: center;">10:30 – 10:45 AM Cell envelope protein interaction map in <i>Escherichia coli</i> <u>Mohan Babu</u>, University of Regina, Regina, SK</p> <p style="text-align: center;">10:45 – 11:00 AM Conflict can enhance bacterial community survival: the case of cross-feeding and colicins in a defined community of <i>E. coli</i> and <i>Salmonella</i> <u>Andrew Cameron</u>, University of Regina, Regina, SK</p> <p style="text-align: center;">11:00 – 11:15 AM Activation of a cryptic glycopeptide antibiotic-related biosynthetic gene cluster <u>Elizabeth Culp</u>, McMaster University, Hamilton, ON</p> |

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| | <p>11:00 – 11:15 AM Time-series clustering of marker genes reveals ecological dynamics <u>Michael Hall</u>, Dalhousie University, Halifax, NS</p> <p>11:15 – 11:30 AM The ecology of methylophilic bacteria in aquatic environments <u>Arthi Ramachandran</u>, Concordia University, Montreal, QC</p> <p>11:30 – 11:45 AM Probiotic fermented food for 120,000 people in Africa, and counting <u>Gregor Reid</u>, Lawson Health Research Institute, London, ON</p> <p>11:45 AM – 12:00 AM Case study on the impact of antibiotic treatment on gut microbiota of preterm infants with and without NEC <u>Sandi Yen</u>, University of Guelph, Guelph, ON</p> | <p>11:00 – 11:15 AM Denosumab, a monoclonal antibody to receptor activator of nuclear factor-Kappa B ligand, modulates the gut microbiome dysbiosis in the context of experimental colitis <u>Azin Khafipour</u>, University of Manitoba, Winnipeg, MB</p> <p>11:15 – 11:30 AM Investigating the ability of <i>Lactobacillus</i> sp. to reduce <i>Candida albicans</i>-induced immunopathology <u>Jessie MacAlpine</u>, University of Toronto, Toronto, ON</p> <p>11:30 – 11:45 AM Enterohemorrhagic <i>Escherichia coli</i> responds to gut microbiota metabolites by altering metabolism and activating stress responses <u>Stefanie Vogt</u>, University of British Columbia, Vancouver, BC</p> <p>11:45 AM– 12:00 PM Attenuated <i>Salmonella typhimurium</i> as a vector for a novel <i>Clostridium difficile</i> vaccine <u>Kaitlin Winter</u>, McGill University, Montreal, QC</p> | <p>11:15 – 11:30 AM Cell wall stress sensing enables resistance to killing by cell wall acting antibiotics in <i>Vibrio cholerae</i> <u>Tobias Doerr</u>, Cornell University, NY, USA</p> <p>11:30 – 11:45 AM A CRISPR Cas9-Based Gene Drive Platform for Studying Complex Genetic Interactions in <i>Candida albicans</i> <u>Rebecca Shapiro</u>, Broad Institute of MIT & Harvard, MA, USA</p> <p>11:45 AM– 12:00 PM A broadly distributed toxin family mediates contact-dependent antagonism between gram-positive bacteria <u>John Whitney</u>, McMaster University, Hamilton, ON</p> |
| 12:00 – 2:45 PM | <p>Lunch, Poster Session III, and Exhibitors Location: Physical Activities Complex (PAC)</p> | | |

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| <p>3:00 – 4:30 PM STC 1012</p> | <p>Postdoctoral Research Symposium <i>Chair:</i> Louise Nelson, UBC Okanagan <i>Vice-Chair:</i> Ed Topp, Agriculture and Agri-Food Canada</p> <p>(12 min + 3 min questions each)</p> <p>3:00 – 3:15 PM - AEM 072 Metatranscriptomic profiles of rhizospheric microorganisms and relationship with canola yield <u>Chih-Ying Lay</u>, Université de Montréal, Montréal, QC</p> <p>3:15 – 3:30 PM - AEM 112 Toward antibiotic stewardship: route of antibiotic administration impacts the microbiota and resistance gene diversity in swine feces <u>Nicole Ricker</u>, USDA-Agricultural Research Service, Ames, USA</p> <p>3:30 – 3:45 PM - II 049 Mechanistic insights into hierarchal effector secretion in enteropathogenic <i>Escherichia coli</i> <u>Dustin Little</u>, McMaster University, Hamilton, ON</p> <p>3:45 – 4:00 PM - II 068 Immunophage synergy is essential for eradicating pathogens that provoke acute respiratory infections <u>Dwayne Roach</u>, Institut Pasteur, Paris, France</p> <p>4:00 – 4:15 PM - MGCM 019 The genome-wide interaction network of nutrient stress genes in <i>Escherichia coli</i> <u>Jean-Philippe Côté</u>, McMaster University, Hamilton, ON</p> <p>4:15 – 4:30 PM - MGCM 046 CRISPR-Cas: limitations of an adaptive immune system <u>Alexander Hynes</u>, Université de Laval, Québec, QC</p> |  |
| <p>4:30 – 5:20 PM STC 1012</p> | <p>CSM MURRAY AWARD FOR CAREER ACHIEVEMENT <i>Sponsored by: Canadian Science Publishing</i></p> <p>CRISPR-Cas systems: from humble beginnings to today's headlines <u>Dr. Sylvain Moineau</u>, Université Laval, Quebec, QC</p> |  <p>Canadian Journal of Microbiology is published by CSP</p> |
| <p>5:20 – 5:30 PM STC 1012</p> | <p>Invitation to next year's meeting from the CSM 2018 Chair Ivan Oresnik, University of Manitoba, Winnipeg, MB</p> | |
| <p>7:00 PM</p> | <p>President's Banquet Concordia Club 429 Ottawa Street, Kitchener, ON, N2M 3P6</p> <p><i>Transportation will be provided to and from the banquet. Bus pick up from STC at 6:20 pm</i></p> |  |



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