

Report on CSM 2019 and use of the ISME sponsorship

The Canadian Society of Microbiologists is a not-for-profit organization uniting researchers across Canada. The annual CSM conference is the main platform for research dissemination and networking for CSM members. The 69th Annual Conference of the Canadian Society of Microbiologists (CSM 2019) took place in Sherbrooke, Quebec, Canada on June 10th-13th, 2019. CSM 2019 gathered a total of 522 participants. While the vast majority of attendees originated from the Province of Quebec, and other provinces and territories of Canada, 28 participants were coming from the USA, Brazil, South Korea, Nigeria, South Africa, Botswana, India, Pakistan, Qatar, France, the UK, Sweden, Germany, and Czech Republic. An overview of the CSM2019 scientific program is shown in Table 1. The detailed program, including sponsors, sessions, speakers and abstracts, can be downloaded by following this link: <https://bit.ly/2XoAu9u>.

A total of 390 abstracts have been received, 276 for consideration as poster among which 137 were submitted in the Applied and Environmental (AEM) section, 80 in the Infection and Immunity (I&I) section and 103 in the Molecular Genetics and Cellular Microbiology (MGCM) section of the CSM. The strong emphasis of this year's program on Microbial Ecology could be felt in the high volume of abstract submissions in the AEM section.

Sponsorship was provided by ISME for the amount of 500 EUR + free ISME membership. The ISME Board suggested using the fund for the ISME award for the early career scientist. However, after consultation with Pr. Josh D. Neufeld (University of Waterloo, ON, Canada), Canadian ambassador for ISME, it was agreed that the fund would be used to cover travel and housing expenses for two invited speakers from sessions related to Microbial Ecology. ISME awards were granted at CSM 2019 by tapping into surplus from the ISME-8 in Halifax, NS, Canada. Therefore, additional ISME awards would have brought confusion without additionally promoting the society. The 500 EUR from ISME have been used to offset the invited speaker costs for Pr. Allyson M. MacLean (University of Ottawa, Ottawa, ON) for the Plants and Microbes symposium and Pr. Alexander Culley (IBIS, Université Laval) for the Environmental Microbiomes session. Both symposia received much attention from participants, as the 250-seat auditorium was entirely full, despite a concurrent session.

Pr. MacLean presented a keynote entitled "Unraveling the molecular mechanisms of plant-microbe interactions". In her keynote address, Pr. MacLean focused on two microorganisms that occupy opposite ends of the spectrum of interactions that take place between plants and microbes: *Phytoplasma*, bacterial pathogens that employ an arsenal of secreted proteins to transform infected plants into better hosts for their insect vectors; and arbuscular mycorrhizal fungi, ubiquitous root-colonizing symbionts that form long-term and intimate partnerships with most known terrestrial plants

Pr. Culley presented a keynote entitled "Wild viruses in the High Arctic". In his talk, he focused on the characterization of the wild viruses from Lake A, a highly stratified, ice-dependent lake located on the northern coast of Ellesmere Island that embodies the dramatic perturbations due to climate change occurring in this part of the Qikiqtaaluk Region in the Canadian territory of Nunavut. Pr. Culley was also a speaker in the MicroFOME sessions of the CSM Forum On Microbiology Education (FOME) 2019 that took place on Monday June 10th, as pre-conference activity. FOME workshops aim at improving undergraduate microbiology education by bringing together a diverse group of microbiologists to discuss

and explore innovative and effective evidence-based practices in microbiology undergraduate education. In this workshop, Pr. Culley presented a collaborative piece of work entitled “Discovering arctic bacteriophages to involve undergraduate students in authentic research”.

The local organizing committee of CSM 2019

Pascale Beauregard, Département de biologie

Louis-Charles Fortier, Département de microbiologie et infectiologie

Vincent Burrus, Département de biologie

Table 1. Overview of the scientific program

Day 1	Monday, June 10, 2019	Session
8:00 AM	Registration	
8:30 AM	FOME Workshop	Chairs: T. Noel & J. Libertucci
9:00 AM	CSM Executive Meeting	
11:00 AM	CSM Council Meeting	
1:30 PM	Professional Development Workshop	Chair: T. de Kievit
4:30 PM	NSERC Grant Information Session	Presenter: M.-C. Jobin
6:00 PM	Welcome from CSM 2019 Co-chairs	P. Beauregard, L.-C. Fortier & V. Burrus
6:15 PM	Plenary Lecture	Rodolphe Barrangou
7:15 PM	Welcome Reception	
Day 2	Tuesday, June 11, 2019	Session
8:00 AM	Registration	
8:30 AM	S1: One Health – Antibiotics and resistance, from animal production to public health I	Keynote: M.R. Mulvey Chair: F. Daigle
	S2: Industrial microbes and biotechnology	Keynote: E. Edwards Chair: C. Beaulieu
10:00 AM	Coffee Break	<i>Refreshments will be served</i>
10:45 AM	S3: One Health – Antibiotics and resistance, from animal production to public health II	Keynote: H. Barkema Chair: M. Jacques <i>Sponsored by: Op+lait</i>
	S4: Systems and synthetic biology I	Keynote: J.I. Glass Chair: S. Rodrigue
12:15 PM	Lunch and Exhibitors	
12:45 PM	DNA Genotek workshop <i>A higher standard for microbiome studies: Optimizing your study design</i>	Presenter: H. Breton
1:30 PM	Student Symposium I	Chairs: D. Bay & J. Neufeld
3:00 PM	Poster Session I and Exhibitors	<i>Coffee Break and Cash Bar Refreshments will be served</i>
3:15 PM	Op+lait workshop	Presenters: C.F. Prada, F. Malouin, J. Ronholm
5:00 PM	Thermo Fisher Award Lecture	Joe Harrison <i>Sponsored by: Thermo Fisher Scientific</i>
6:00 PM	Student Mixer & ASM Networking	Atrium Sciences de la Vie D7-D8 building, 1 st Floor
Day 3	Wednesday, June 12, 2019	Session
8:00 AM	Registration	
8:30 AM	S5: One Health – Climate change, vector-borne diseases and emerging pathogens	Keynote: N.H. Ogden Chair: A. Carignan
	S6: Environmental microbiomes	Keynote: A. Culley Chair: A. Sellam
10:00 AM	Coffee Break	<i>Refreshments will be served</i>
10:45 AM	S7: One Health – Microbiome, microbial interactions and molecular pathogenesis	Keynote: C. Maurice Chair: A. Menendez <i>Sponsored by: CIHR III</i>

	S8: Food microbiology	Keynote: J. Goulet Chair: S. Labrie
12:15 PM	Lunch and Exhibitors	
12:45 PM	Illumina workshop <i>Recent advances in microbial genome sequencing and microbiome profiling using Illumina technology</i>	Presenter: M. Keddache
1:30 PM	Student Symposium II	Chairs: D. Bay & J. Neufeld
3:00 PM	Poster Session II and Exhibitors	<i>Coffee Break and Cash Bar Refreshments will be served</i>
4:30 PM	Exhibitors Door Prize Draw	
5:00 PM	Armand Frappier Outstanding Student Award Lecture	Yogesh Hooda <i>Sponsored by: Canadian Society of Microbiologists</i>
6:00 PM	CSM Annual General Meeting	<i>All CSM Members welcome</i>
8:00 PM	Excursion to Foresta Lumina	<i>Transportation will be provided (front of B1/B2)</i>
Day 4	Thursday, June 13, 2019	Session
8:00 AM	Registration	
8:30 AM	S9: One Health – Alternatives to antibiotics	Keynote: T. Louie Chair: F. Malouin
	S10: Plants and microbes	Keynote: A.M. MacLean Chair: P. Beaugard
10:00 AM	Coffee Break	<i>Refreshments will be served</i>
10:45 AM	S11: Microbial chemosphere	Keynote: C. Sit Chair: J.-P. Bellenger
	S12: Systems and synthetic biology II	Keynote: C. Gross Chair: J.-P. Côté
12:15 PM	Lunch and Exhibitors	
1:30 PM	I&I Section Symposium	Chair: S. Faucher Vice-Chair: G. Cox
	AEM Section Symposium	Chair: S. Short Vice-Chair: L. Hug
	MGCM Section Symposium	Chair: T. Raivio Vice-Chair: A. Hynes
3:00 PM	Coffee Break	<i>Refreshments will be served</i>
3:30 PM	Postdoctoral Research Symposium	Chair: L. Nelson
5:00 PM	CSM Murray Award for Career Achievement	Yves Brun <i>Sponsored by: Canadian Science Publishing</i>
6:00 PM	Invitation for 2020 CSM Conference	K. Dunfield & C.M. Khursigara
7:00 PM	CSM President's Banquet	53 Wellington Nord, Sherbrooke, QC, J1H 5A9 <i>Transportation will be provided (STS Bus Station)</i>