Microbiology & Infectious Diseases Research Days

Monday, June 3rd, 2019 – Trainee Day (Selected from Abstracts)
Tuesday, June 4th, 2019 – Invited Lectures & Poster Session

Talks in Medical Sciences Building, Room 2170

**Posters & Lunch in Medical Sciences Building,
Room 2171 (C. David Naylor Student Commons)**

Website: http://microbeto.ca/mid-2019/

Monday, June 3rd, 2019

9:30 - 9:40 WELCOME ADDRESS

9:45 – 10:00: Avid Mohammadi
Characterizing the impact of penile-vaginal sex on HIV-susceptible CD4+ T cell subsets in the female genital tract

10:05 - 10:20: Erin O. Y. Wong
Developing defined microbiota to model inflammation in the mouse gut

10:25 - 10:40: Nora Mellouk
An ATG16L1-dependent pathway promotes plasma membrane repair and limits Listeria monocytogenes cell-to-cell spread

10:45 - 11:15: COFFEE BREAK

11:20 - 11:35: Jean-Paul R. Soucy
Joint modelling of resistance to six antimicrobials in urinary *Escherichia coli* isolates in Quebec, Canada

11:40 – 11:55: Sarah Birstonas
EHEC utilizes two-component systems to modulate expression of major flagellar subunit protein, FliC, in response to host intestinal cues

12:00 - 12:15: Nathaniel Winsor
NLRP6 regulates the colonic mucus layer during Tritrichomonas infection

12:35 – 1:30: LUNCH

1:35 - 12:50: Samuel Salamun
Epstein-Barr Virus Protein BMRF1 Modulates Cellular SUMO and DNA Damage Response Pathways by Binding the Cellular NuRD Complex

1:55 - 2:10: Nicola Case
Elucidating the mechanism of Candida albicans morphogenesis in response to phagocytosis by macrophages

2:15 - 2:30: Sarah Kronheim
A small molecule anti-phage defense mechanism in Streptomyces

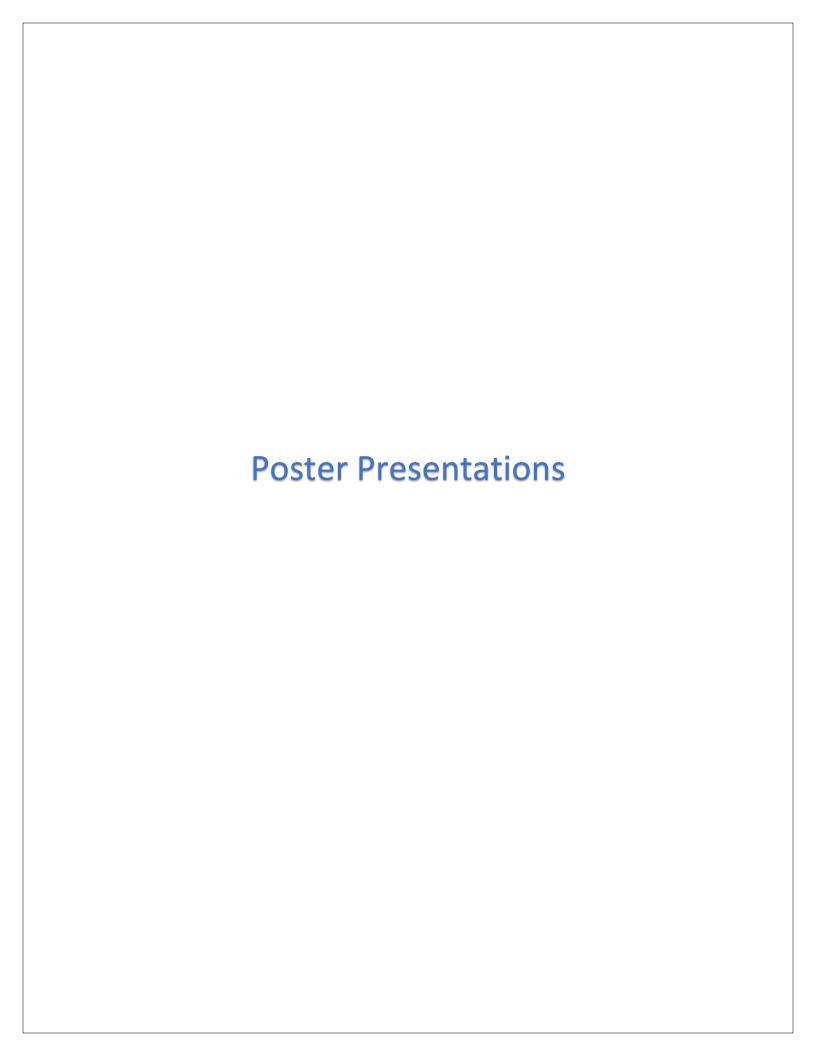### 2.30 - 3:00: COFFEE BREAK

3:05 - 3:20: Alexandra Willis
Understanding inherited immunity using a *C. elegans* model of microsporidia infection

3:25 - 3:40: Genevieve Mailhot
Differentiating between protective and pathogenic neutrophil responses during *Neisseria gonorrhoeae* infection

3:45 – 4:00: Tiffany Fitzpatrick
Successes of anti-RSV prophylaxis among infants in Ontario: results from a multi-decade, population-based controlled interrupted time series analysis using health administrative data

Poster Presentations

44) Accuracy of Diagnostics in Tegumentary Leishmaniasis: A Systematic Review

Sonia Igboanugo1, Melissa S. Phuong1, Rachel Lau2, Robert Chris1, Eric Shao1, Ruwandi Kariyawasam3, Hira Raheel1, Sharmistha Mishra4, Andrea K. Boggild1

1Tropical Disease Unit, Toronto General Hospital and University of Toronto, Toronto, ON, Canada, 2Public Health Ontario, Toronto, ON, Canada, 3Institute of Medical Sciences, Department of Medicine, University of Toronto, Toronto, ON, Canada, 4Li Ka Shing Knowledge Institute, St. Michael's Hospital, Toronto, ON, Canada

Tegumentary leishmaniasis (TL) is characterized by cutaneous and mucocutaneous ulcerative skin lesions, caused by Leishmania parasites, that can potentially disfigure the midface. The clinical presentation of TL is similar to that of epidemiologically overlapping fungal and mycobacterial infections, thereby necessitating confirmatory diagnostics to inform appropriate treatment. Laboratory diagnostic techniques for TL include the leishmanin skin test; microscopic identification of amastigotes from skin aspirates, biopsies and scrapings; culture; and molecular assays. We aim to determine optimal methods to accurately and efficiently diagnose TL to improve diagnostic stewardship. We searched five databases from inception to July 16, 2018 including Ovid MEDLINE, Embase, LILACS, Cochrane Library and Scopus with the following search terms: (""cut* leish*"" OR ""muc* leish*"" OR ""teg* leish*"") AND (diagnosis OR diagnostic accuracy OR sensitivity OR specificity OR stard OR test*) AND NOT (viscer*). All systematic reviews, diagnostic trials and observational studies were included. Titles, abstracts and full-texts are systematically doubled screened by two reviewers with a tertiary arbitrator. Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) and Quality Assessment of Diagnostic Accuracy Studies (QUADAS) will be employed. 6745 papers were identified from the five databases and 1278 papers remained for abstract evaluation (3391 removed) after title screening, where non-human, non-TL, non-diagnostic and case report articles were excluded. Abstract and full-text screening will be conducted. Data will be extracted from full-texts and assessed using QUADAS for selection and information bias. Heterogeneity of the studies will be determined and meta-analysis performed as appropriate. TL cannot be distinguished from competing infectious etiologies clinically, thus necessitating confirmatory diagnostics. A knowledge synthesis of accurate diagnostic assays can provide insight into the optimal approach for TL confirmation and subsequently guide therapy.