

Sunday, June 7: 1000-1115

G01: Human Genetic Resistance to Malaria

Daniel Marko, PhD

Topic(s): Hematology, Transfusion Science

Learning Outcomes

- Have an understanding of the general structure and life cycle of Plasmodium, as well as the clinical course of malaria
- Understand how Plasmodium invades and modifies the red blood cell
- Understand how certain hematological disorders and certain blood groups protect against invasion or growth of the parasite into the red blood cell

Session Description

The burden of disease due to malaria has selected for a series of traits of major medical importance (e.g. sickle cell trait, G6PD deficiency) and alterations in red cell membrane protein. The genetic resistance to malarial infection, particularly falciparum malaria, associated with hemoglobinopathies, and alterations to red cell membrane antigens, will be reviewed.

Speaker Bio

Daniel is a hematopathologist for Shared Health Manitoba. After medical school in Adelaide, Australia, he did his anatomical and clinical pathology residency, and a hematopathology fellowship at UC Davis in California. This was followed by fellowships in microbiology and transfusion medicine at the University of Iowa.

Sunday, June 7: 1000-1115

G02: DNA Detectives: Using Genome Sequencing for Disease Surveillance

David Alexander, PhD

Topic(s): Microbiology, Public Health, Epidemiology

Learning Outcomes

- Describe general laboratory methods for genome sequencing
- Describe general methods for analysis of genome sequencing data
- Describe how genome sequencing supports public health surveillance and investigation activities
- Describe some pros and cons of this new and disruptive technology

Session Description

The DNA detectives are on the case! Combining cutting-edge genome sequencing technologies with traditional investigation methods to identify disease outbreaks and track pathogens to their source. Using examples from recent Canadian outbreaks, this session will offer an introduction to bacterial whole genome sequencing and describe how this technology is revolutionizing the surveillance of infectious diseases.

Speaker Bio

Dr. David Alexander is a PhD-trained microbiologist with a long-standing interest in the epidemiology of infectious diseases. For the past 13 years, he has worked in the provincial public health laboratory system, first at the Public Health Ontario Laboratories in Toronto, then at the Saskatchewan Disease Control Laboratory in Regina. Since 2015, David has been a scientist at the Cadham Provincial Laboratory. He provides support for assay validation and quality control activities, and is actively involved with the application of genome sequencing-based methods to the study and surveillance of bacterial pathogens.

Sunday, June 7: 1000-1115

G03-IGNITE: What's all the Fuss About Mass Spectrometry?

Curtis Oleschuk, PhD, FCACB, FABFT

Topic(s): Chemistry, Microbiology

Learning Outcomes

- Understand the principle of mass spectrometry detection techniques
- Describe the challenges in mass spectrometry methods of analysis
- Understand the clinical utility of mass spectrometry modes of analysis
- Describe a practical approach to interpreting mass spectrometry data

Session Description

Mass spectrometry has become a relatively common detection method in clinical laboratories. This session will overview the principle of mass spectrometry as it relates to clinical laboratory uses. The practical aspects of implementing this technology will be discussed as it relates to the various types of mass spectrometry devices. In addition, example(s) will be provided on the challenges of interpreting mass spectrometry data.

Speaker Bio

Dr. Curtis Oleschuk is a PhD Scientist with Shared Health Manitoba. He is board certified as a fellow of the American Board of Forensic Toxicology and Canadian Academy of Clinical Biochemists. He has been working with mass spectrometry techniques in the setting of clinical biochemistry and forensic laboratory for over 13 years. Dr. Oleschuk is an Assistant Professor at the University of Manitoba in the Departments of Pediatrics and Child Health and Pharmacology and Therapeutics.

Sunday, June 7: 1000-1115

G03-IGNITE: An Introduction to the World of Flow Cytometry

Sheldon Kuzmik, BSc, MLT

Topic(s): Immunology, Flow Cytometry

Learning Outcomes

- Explain what is flow cytometry
- Know the procedure to sets samples up for flow cytometry
- Know common flow tests ordered by doctors
- Learn some new applications currently for flow cytometry

Session Description

An introduction to what flow cytometry is, including a detailed description of how samples are processed, a list and description of common tests ordered and a few examples of new applications using flow cytometry.

Speaker Bio

Sheldon Kuzmik has been a MLT for just over 6 years and has spent all of those 6 years in the flow cytometry lab in Winnipeg, MB. Prior to working as an MLT, Sheldon completed a BSc with honors in genetics at U of M, which included two years of theatre courses.

Sunday, June 7: 1000-1115

G04-IGNITE: Communication for Internationally Educated MLTs in Canada

Cheryl Jerome
Blanche Kingdon

Topic(s): Communicaton

Learning Outcomes

- Understand the difference between language and communication
- Recognize the importance of providing culture and communication training to IEMLTs
- Understand the value of providing IEMLTs the opportunity to develop and practice interactional communication skills using simulations (patients and other health professionals)

Session Description

In addition to meeting the clinical competencies required for practice in Canada, internationally educated medical lab technologists (IEMLTs) also need to be ready (communicatively competent) to meet the complex communicative demands of working in health care in Canada. IEMLTs need to be able to interact professionally and competently with clients, client families, medical professionals, and others in the workplace. This presentation will provide an overview of the communication skills and techniques used in Red River College's (RRC) health-related communication programs to help IE health professionals develop the interactional competence they need to successfully integrate in the Canadian health care system.

Speaker Bio

Cheryl Jerome and Blanche Kingdon are curriculum designers and instructors at Red River College's Language Training Centre who teach health related communication programs to internationally-educated health professionals (IEHPs) seeking licensure to practice in the Canadian health care system. These programs focus on developing interactional communicative competence to prepare IEHPs for entry into the health care field. Currently, Cheryl teaches the Communication and Professional Practice for Medical Laboratory Technologists and Communication for Health Professions), and Blanche teaches the Communication for Internationally Educated Health Professionals Program and the Bridging for Internationally Educated Nurses' Level 1 Program.

Sunday, June 7: 1000-1115

G04-IGNITE: Inter-professional Collaboration in Regulation

Tricia VanDenakker, ART, BSc, MLT

Adam Chrobak, BSc, MBA, MLT

Topic(s): Management

Learning Outcomes

- Demonstrate the value of collaboration amongst leaders and policy makers
- Model collaboration for healthcare practitioners
- Strengthen partnerships through collaborative projects
- Understand the advantages of collaboration (incorporating multiple perspectives, increased comprehensiveness, efficiency and cost savings)

Session Description

Modernization of health care statutes has resulted in umbrella legislation in several Canadian provinces, including Manitoba. One of the underlying principles of this regulatory reform is a need for interprofessional collaboration. The principle role of the health professional regulatory college is to ensure public safety through the creation and enforcement of regulations, practice standards and policies. Historically, these were developed from a uniprofessional lens. Given the new context under the Regulated Health Professions Act in Manitoba, a group of health regulatory colleges came together to explore mutual interest in addressing collaboration in practice together which was raised at the Manitoba Alliance of Health Regulatory Colleges.

Speaker Bios

Tricia VanDenakker is the Deputy Registrar for the College of Medical Laboratory Technologists of Manitoba. During her 39 year career, she has held traditional MLT roles in a variety of laboratory settings as well as worked in non-traditional settings including education, recruitment and human resources. Tricia attributes much of her professional gratification to her volunteer activities. Over the years she has volunteered with the Manitoba Society (MAMLS), the CSMLS, CMA, MANQAP and HSO

Adam Chrobak is the Registrar/CEO of the CMLTM. Adam has a BSc, a medical laboratory sciences diploma in Cytotechnology and recently completed an MBA. Adam's 20 year career as a Cytotechnologist includes provincial and international experience. Adam has served as the Chair of the Manitoba Alliance of Health Regulatory Colleges, and as Vice-Chair and Treasurer of the Manitoba Institute for Patient Safety. He also participates in lab accreditation and medical laboratory sciences education program accreditation surveys.

Sunday, June 7: 1145-1300

H01: What Factors Influence Laboratory Quality

Joanne Isber, MLT, MLS, EMBA

Topic(s): Quality, General

Learning Outcomes

- Understand elements that influence strategy and decisions in laboratory medicine
- Understand concepts of systems thinking
- Improved insight as to how laboratory medicine is evolving
- How to develop improved workplace cultures
- Understand the shift in lab medicine to sustainable service delivery; the right person performing the right task

Session Description

An overview of external and internal factors that influence quality in healthcare and laboratory medicine and how these factors determine organizational strategy and drive direction in laboratory service delivery. Laboratory employees and managers will gain insight as to how to be able to work collaboratively with system stakeholders to facilitate transparent communication, acceptance of change and develop a culture of continuous improvement; all elements of a quality system that lead to efficiency and improved productivity.

Speaker Bio

Joanne has worked 33 years in healthcare. She is a Healthcare Director with 17 years of leadership and quality management experience working in both Canada and USA. Currently, she is the Program Director for Laboratory Services for Interior Health Authority of BC and provincial stakeholder lead for integrating labs across BC. Her degrees include: MLT, MLS and Executive MBA in Global Leadership. She is an Advisory Board Member for MLT Program: SAIT, BCIT, CNC. She lives in Kelowna surrounded by the peacefulness and serenity of mountains and orchards. She is also an instructor in Quality Systems for CSMLS.

Sunday, June 7: 1145-1300

H02: Innovative Uses of Simulations in an MLSc Program

Helene Goulding, MLT
Connie Thurber, BScMT, ASCP(SC)

Topic(s): Chemistry, Education, Quality, Interprofessional education

Learning Outcomes

- Define areas in which MLSc programs may include simulation-based tools and experiences
- Practice interpretative skills for arterial blood gas (ABG) results using a simulation-based tool
- Evaluate generated plot for the occurrence of multi-rule failures using a simulation-based tool
- List the advantages of simulation-based interprofessional education in MLSc

Session Description

The purpose of this presentation is to highlight the use of simulation in a Medical Laboratory Science (MLSc) program. MLSc students are required to retain large volumes of knowledge, work with complex instrumentation and to be able to handle the pressures and stressors which they will experience in the clinical environment. The use of simulation-based curricula in didactic is paramount in addressing these current demands. The presentation will highlight two simulation-based learning tools, created to facilitate critical thinking and interpretive skills in Biochemistry and a unique simulation-based interprofessional education (Sim-IPE) experience for nursing and MLSc students.

Speaker Bios

Connie Thurber holds a Bachelor of Science in Medical Technology from the State University of New York, and a Specialist Certification in Clinical Chemistry with the ASCP. She has worked as an MLT in the US and Canada. She currently teaches at Ontario Tech University for the MLSc program with a focus in Clinical Biochemistry.

Helene-Marie Goulding holds a Bachelor of Allied Health and a Master in Education. She is a senior teaching professor for the MLSc program at Ontario Tech University with a focus in Microbiology. Her professional interests include developing the use of online learning tools and simulation-based interprofessional education.

Sunday, June 7: 1145-1300

H03: Cellular Therapy Holds Promise for the Future

Angeline Giftakis, BA, MLT
Dr. Qingdong Guan, PhD

Topic(s): Immunology, Transfusion Science

Learning Outcomes

- To educate you about stem cells and cellular therapy
- To show you current cell therapy applications, and challenges for the role of the Medical Laboratory Technologist in the processing lab
- To inform you of the new emerging technologies and future directions in regenerative medicine and immunotherapy

Session Description

Hematopoietic stem cell transplantation (HSCT) has been a standard therapy for many malignant and non-malignant diseases. Unfortunately, disease relapse still occurs in some patients and graft-vs-host disease continues to be a life threatening complication.

To improve the efficacy of HSCT, lab based cell-depletion strategies are necessary. Novel cellular therapies are being explored; mesenchymal stromal cells, chimeric antigen receptor T cells (CAR-Ts), and virus-specific T cells that aim to improve transplant outcomes and the lives of patients.

This presentation will discuss HSCT and recent advances and regulations of cellular therapies. It will show how these new clinical applications are challenging the role of the medical laboratory technologist in the processing lab.

Speaker Bios

Angeline Giftakis received her Bachelor of Arts degree from the University of Manitoba, followed by the Medical Laboratory Technologist CSMLS certification in 1996. She has a unique 20+ year history working in the Cell Therapy Lab, Manitoba Blood and Marrow Transplant Program, CancerCare Manitoba, and presently is the Charge Technologist. She is active in the Cell Therapy Transplant Canada (CTTC) organization's Laboratory Group, striving to improve and standardize lab best practices with focus on technical and regulatory issues in the laboratory.

Dr. Guan is the Processing Facility Director of Cellular Therapy Laboratory, CancerCare Manitoba, and Manitoba Centre for Advanced Cell and Tissue Therapy. He finished his medical doctor training in 2001, MSc training in Immunology in 2004 in China, and PhD training at Dept of Immunology, University of Manitoba in 2012. Dr. Guan's research focuses on therapeutic roles of immune regulatory cells in asthma, autoimmune diseases, hematopoietic stem cell transplantation and development of therapeutic vaccines. Dr. Guan was involved in the first Canadian clinical trial studying ability of mesenchymal stem cells to treat multiple sclerosis.

Sunday, June 7: 1145-1300

H04: Diagnostic Pathways in Lymphoproliferative Disorders

Vishala Neppalli, MD

Topic(s): Histotechnology, Immunocytochemistry, Flow Cytometry, Molecular Genetics, Triage

Learning Outcomes

- Importance of specimen handling and processing
- Impact of pre-analytical and post analytical aspects influencing lymphoma diagnosis
- Understand the complexity of classification and clinical significance

Session Description

The session briefly covers the clinical relevance of current pathologic classifications in lymphoma. Choice and performance of ancillary laboratory testing platforms and results, with a focus on diagnostic yield.

Speaker Bio

Dr. Neppalli is a hematopathologist with an advanced expertise in lymphoid disorders. She is a US trained specialist, and practiced as an academic pathologist at University of Iowa Hospitals and Clinics, and at Roswell Park Comprehensive Cancer Centre (RPCCC, Buffalo, NY), prior to moving to Winnipeg. At RPCCC, Dr. Neppalli was the Chief of Division of Diagnostic Hematology, where she was instrumental in developing an integrated hematopathology diagnostic reporting model. She has served as a panel member on Myeloma, Chronic lymphocytic leukemia/Hairy cell leukemia/Waldenstrom macroglobulinemia National Comprehensive Cancer Network (NCCN) guidelines.

Sunday, June 7: 1415-1530

P04: Rise Up: A Personal Journey of Courage, Service and Success

Lucie Alain, MLT

Session Description

Leaders aren't born, they are created over time. This presentation will follow the personal journey of a medical laboratory technologist who started on the bench and is now a Chief Warrant Officer in the Canadian Armed Forces – the highest rank of a non-commissioned member. From growing up in a small town, Lucie Alain's career as an MLT has taken her across the globe, blazing trails into roles no MLT, and even no woman, has gone before. Lucie will share her extraordinary path into leadership, one that required hard lessons, immense sacrifices and a willingness to serve others. Through her stories, you will learn how helping others grow can in turn help you realise your own career dreams and ambitions. This presentation will inspire you to rise up to achieve your greatest potential.

Speaker Bio

Lucie Alain joined the Canadian Armed Forces Primary Reserve in May 1987 after completing the Laboratory Technologist course, she transferred to the Regular Force in 1991. Her military career took her to Valcartier, Montreal, Halifax, Petawawa, Borden and Ottawa. She also deployed 3 times to Bosnia-Herzegovina and twice to Afghanistan. She achieved the rank of Chief Warrant Officer in 2016 and is now serving as the Medical Branch CWO. She joined the CSMLS Board of Directors in 2014.