Saturday, June 6: 1000-1115

P02: Drs. Vs. MLTs: Who knows their Sh\*t best?

Dr. Leon Waye

**Learning Outcomes** 

**Session Description** 

Speaker Bio

D01: A Next Generation Sequencing Story: MLTs in the age of Personalized Medicine

Matthew Bueno De Mesquita, MSc, MLT

Topic(s): Clinical Genetics (Will link to pathology and oncology)

#### **Learning Outcomes**

- Describe what Next Generation Sequencing is and how it works
- Understand the link between genotype, phenotype and personalized medicine
- Understand the MLT's role with respect to Next Generation Sequencing

# **Session Description**

This session will be an introduction to Next Generation Sequencing from an MLT's perspective. We will discuss the pros and cons of the technology and how we are currently using it in the clinical genomics laboratory. The focus will be on the technology and its clinical application with respect to personalized medicine.

# Speaker Bio

After completing an MSc in Molecular Science, Matthew worked in Evolutionary Genomics and Biophysics before obtaining his MLT through The Michener Institute. He is currently a Senior Technologist in Shared Health Manitoba's Molecular Diagnostic Laboratory.

D02: Free to Be Me

Dr. Ral Koko, MBBS, MRCGP, CCFP

Topic(s): Mental Health/Stress Management

#### **Learning Outcomes**

- Reconnect with yourself as a WHOLE
- REST, REBOOT and RECHARGE FOR HEALTH
- Allow yourself the necessity of SELF CARE
- Use a simple tool to assess your STATE OF BALANCE
- BEGIN the process of SELF INQUIRY

## **Session Description**

The session will be mostly interactive, with a chance to work through a few tools of well-being. It will be delivered via a round table style. There will most likely be a short calming/centering practice included.

# Speaker Bio

Ral is a practicing Family Physician in Winnipeg with a very special interest in helping herself and others reconnect with their "heart and soul" and by doing so, bring this into their work and personal lives. She believes we can gradually make the shift from "surviving to thriving".

D03: Inventory Management 101: Make it Part of Your Daily Routine

Tracy Cameron, MLT Alison Wendt, MLT

Topic(s): Transfusion Science

## **Learning Outcomes**

- Familiarize how blood components and products are funded in Canada
- Illustrate the importance of reviewing blood usage to monitor if the inventory is appropriate or requires adjustment
- Promote better understanding of the role technologists play in managing supply challenged components like O Rh negative red blood cells and AB Plasma
- Describe the process for redistributing blood components and products and the importance of this process to the blood system

# **Session Description**

Canada's national blood system is funded by the provinces and territories to provide blood components and products to hospitals free of charge. The cost of this continues to increase each year. Provincial agencies are becoming more fiscally aware of these costs and are introducing mitigating strategies to ensure these costs are sustainable. Technologists play a key role in promoting and engaging in best practices in inventory management (reviewing, reducing and redistributing) to ensure that blood inventory meets the needs of their hospitals, patient populations and workloads.

# **Speaker Bios**

Tracy Cameron graduated from the MLT Program at Canadore College in North Bay in 1995. She worked for a private lab for 3 years before taking a position at Canadian Blood Services (1998 to 2006). In 2006 she joined the Ontario Regional Blood Coordinating Network (ORBCoN) as a project coordinator.

Alison Wendt graduated from the MLT Program at St. Lawrence College in Kingston Ontario in 1985. She worked in Transfusion Medicine at St. Michael's Hospital for 2 years and began working in Transfusion Medicine/Hematology/Coagulation and then specifically Transfusion Medicine at Sunnybrook Health Sciences Centre in 1987. Alison Joined the ORBCoN team in 2015 as a project coordinator.

D04: POCT: Beauty and the Beast

Brittney Bragnalo, POCT Specialist, MLT Beth Luhowy, MLT

Topic(s): POCT

# **Session Description**

Every quality Point of Care program has glamour and grit. This session will explore Point of Care Testing (POCT) with a focus on:

- Benefits of a POCT program
- How it promotes client-centered care
- The opportunities POCT provides
- The challenges of implementing a quality POCT program
- The opportunities POCT provides
- What the focus is in Manitoba with regard to POCT

## **Speaker Bios**

Brittney Bragnalo is a medical laboratory technologist and Point of Care Testing Specialist for Shared Health, Diagnostic Services. In her role she focuses on work with First Nations and Inuit Health Branch and the implementation of a quality Point of Care Program.

Beth Luhowy is a Medical Laboratory Technologist working as a Senior Quality Specialist for Shared Health, Diagnostic Services. In this position she provides provincial quality oversight for diagnostic services in Manitoba, ensuring compliance with quality, accreditation and regulatory requirements. She has also worked for several years with internal and external partners to help establish quality POCT programs within the province of Manitoba.

# LABCON2020

Winnipeg, MB June 5-7, 2020

Saturday, June 6: 1345-1500

E01: Title TBA

**INSTRUMENTATION LAB** 

Topic(s):

**Learning Outcomes** 

**Session Description** 

Speaker Bio

E02: Artificial Intelligence in Medical Laboratories: Trends, Current Technologies and Perspectives

Abbas AlZubaidi, BSc, MSc

Topic(s): Information Technology, Pre-Analytical

#### **Learning Outcomes**

- Understand the basics of artificial intelligence (AI) and medical laboratory (ML) in clinical laboratories setting
- Intermediate knowledge of implementing simple AI software for clinical labs
- Deep insight on current and future AI and ML for computational pathology and biochemistry field
- Application of AI/ML in Quality measure of daily clinical lab workflow
- Basic understanding of data analytics for medical lab professionals

# **Session Description**

Popular AI techniques include machine learning (ML) methods for structured data, such as the classical support vector machine and neural network, and the modern deep learning, as well as natural language processing for unstructured data. Major disease areas that use AI tools include cancer histopathology, hematology and biochemical analysis.

Al can be applied to various types of medical laboratory data (structured and unstructured). Popular Al techniques include ML methods for structured data. We then review in more details the Al applications in Laboratory QA, histopathology, etc.

# Speaker Bio

Abbas AlZubaidi, born in Baghdad 1979. He graduated from AlNahrain University with BSc and MSc in Biomedical engineering, 2001 and 2004 respectively, and gained his Doctoral degree in medical information technology from RWTH Aachen University in Germany. He has worked in the field of Al for healthcare since 2004 and has developed several applications in computational pathology.

Currently, he is working as postdoc researcher and is involved in developing biomedical imaging technologies for the Canadian Space Agency (CSA) for human mission of deep space explorations.

E03: Lab Design and Workflow - Getting it Right Every Time!

Eoin O'Grady, PhD, CRSP Aurel Tamburri, MHM, CRSP, MLT, DOHS

Topic(s): Management, Safety

# **Learning Outcomes**

- Understand the importance of lab design and workflow
- Incorporate design and workflow based on modernization, automation or renovation
- Assemble the project team to execute a lab build/renovation that is effective, efficient and minimizes risk

#### **Session Description**

Executing lab design and matching that to workflow in the lab is no small feat. Often, there are no second chances from a financial, operational or safety perspective! Getting it right takes a collaborative and concerted effort. Real-life examples will be shared to help you avoid pitfalls and better position you to deliver upon your objectives; be that modernization, automation or large-scale renovation. The importance of accurately planning, articulating your objectives to third parties and acknowledging constraints are essential to deliver a lab design that is effective, efficient and minimizes risk.

#### **Speaker Bios**

Eoin earned a PhD in Microbiology in Ireland and is a Canadian Registered Safety Professional. He worked for over ten years in research and development settings in Europe, USA and Canada before starting a career in safety in 2011. Eoin is the Occupational Health & Safety Consultant to CSMLS. Eoin continues to develop his interests in teaching, health and safety, and leadership over the last several years.

Aurel has over 25 years of progressive experience in laboratory operations, safety and support services. Since 2000, Aurel has held a few key leadership roles with the Ontario Ministry of Health and Long-Term Care and Public Health Ontario. His area of expertise includes safety and biorisk management, laboratory operations, process design, program management and regulatory compliance. Aurel is a member of the College of Medical Laboratory Technologists of Ontario, earned a master's degree in Health Management from McMaster University, a graduate diploma in Occupational Health, Safety & Environmental Medicine from McMaster University and is a Canadian Registered Safety Professional (CRSP). Over the years, Aurel has managed several clinical and service related program areas, lead various initiatives in process and quality improvements, transition plans and continues to strive to build efficiencies within PHO Laboratory operations.

#### LABCON2020

Sunday, June 7: 1000-1115

E04: Bench to Business 4.0

Christine Nielsen, BHA, MLT, CAE Andy Basi, EdD, MBA, CHE, RT, ART Jim Gauthier, MLT, CIC

Topic(s): General Interest

#### **Session Description**

Facilitated by CSMLS CEO, Christine Nielsen, we will explore the personal experiences of experts who left the bench and moved to industry, education, association management and even outside of the field. Do you plan it? Does it just happen? How do you prepare yourself? Is it rewarding? Join us for a fireside chat style Q and A, which may open doors for you.

# **Speaker Bios**

Christine Nielsen became chief executive officer of the Canadian Society for Medical Laboratory Science in 2010. She is a medical laboratory technologist, with a degree in Health Administration and a Certified Association Executive, with a Certificate of Mastery in Prior Learning Assessment from the Council for Adult and Experiential Learning at DePaul University in Chicago. Christine is currently completing an MBA from the Edinburgh School of Business, Scotland.

Jim is a medical laboratory technologist with over 27 years of experience in Infection Control. He has worked in microbiology labs across the country and has a passion for the prevention of infections. Jim has lectured widely in Canada and the US, and has presented also in Europe and New Zealand. He acts as the Senior Clinical Advisor for Infection Control for Diversey.

Dr. Basi is an experienced healthcare executive. A Registered Technologist trained in England and past Associate Dean in the School of the Health Sciences at BCIT, Andy's career has taken him across a spectrum of leadership roles in different settings. Along with 12 years of Laboratory Management experience he broadened his administrative skills in a variety of roles, first at the Workers Compensation Board and then as Administrative Manager Newborn Care Program and NICU at BC Children's Hospital. Most recently he worked as Manager Physician Quality Program at Vancouver Coastal Health, and previously as the Executive Lead Practice Support Program at Doctors of BC.

F01: Vector-Borne Villains: Is it Safe to Go Outdoors?

Jim Gauthier, MLT, CIC

Topic(s): Microbiology

#### **Learning Outcomes**

- Understand the infectious risk of being bitten by a mosquito in various parts of the world
- Understand the infectious risk of being bitten by other insects (ticks, lice, flies, etc.)
- Apply preventative measure to avoid being exposed to vector-borne illnesses

# **Session Description**

As the world shrinks (and warms up), new pathogens are being introduced to warmer parts of the world, spread by mosquitos, flies, ticks, and other biting insects. This presentation will examine some of these illnesses and preventative steps that travellers, visitors, or residents can take to protect themselves.

# Speaker Bio

Jim is a medical laboratory technologist with over 27 years of experience in Infection Control. He has worked in microbiology labs across the country and has a passion for the prevention of infections. Jim has lectured widely in Canada and the US, and has presented also in Europe and New Zealand. He acts as the Senior Clinical Advisor for Infection Control for Diversey.

F02: Is Management Right for You?

Melanie Macasaet-Peralta, MLT Lisa Kendrick, BSC, CT (ASCP) Petr Kresta, MHSc, fCMBES, fACCE, PEng,

Topic(s): Management

#### **Session Description**

Are you considering a leadership role within the lab? If so, there are probably a few things you should consider beforehand. While being the boss has its perks, it also comes with a lot of work and responsibility.

Join lab managers from across Canada to hear about their experiences: what they wish they would have known before becoming a manager and the skills needed for a successful transition.

#### **Speaker Bios**

Melanie is a product of Winnipeg. She graduated in 1997 from the Medical Laboratory Program at Red River College. After moving to Toronto in 1998, she spent 4 years in a diagnostic Histology Lab before moving to a research lab position. Melanie has worked part-time teaching Histology at the Michener Institute for 3 years and for the last 10 years, has held a position as Team lead and Resource Technologist for Pathology Research Program at UHN.

F03: Study of Clinical Utility of Reticulated Hemoglobin Equivalent Compared to Conventional Biochemical Tests

Prashant John, MSc, MLT, BSc

Topic(s): Chemistry, Hematology

# **Learning Outcomes**

- Understand the current biochemical tests to diagnose iron deficiency anaemia
- Compare reticulocyte hemoglobin equivalent to current tests used for diagnosis of iron deficiency anaemia
- Understand how reticulocyte hemoglobin equivalent testing is performed

# **Session Description**

Deficiency of iron is the major cause of development of anaemia across the globe. This can lead to poor quality of life, lack of energy, and deterioration of the clinical condition of an individual. Diagnosis of Iron deficiency is traditionally based on decreased plasma ferritin level, decreased serum iron concentration, and lower percent transferrin saturation. However, these biochemical markers provide weaker results in diagnosing iron deficiency. Reticulocyte haemoglobin equivalent has emerged as an early and better indicator of iron deficiency than conventional biomarkers. This presentation is a study of clinical utility of reticulocyte haemoglobin equivalent to traditional biomarkers.

#### Speaker Bio

Prashant performed this research study as a part of his Master of Science (Blood science) that he successfully completed in September 2019 at the London Metropolitan University. Prashant is currently employed as a Charge Medical Laboratory Technologist at a community hospital in Winnipeg.

F04: Why Everyone Should be Talking About HPV

Karen Cormier, BSc, CT(ASCP), PMP

Topic(s): Cytology, Ethics

#### **Learning Outcomes**

- Understand the importance of HPV and it's etiology
- Learn about the HPV testing landscape across Canada
- Learn about the barriers to HPV vaccination
- Learn about the impact HPV infections have on HPV-related cancers

# **Session Description**

In 1984, HPV was first connected to cervical cancer. Since this time so much has been learned and we have made technological advances with HPV testing and improving cervical screening and patient management. It has since been discovered that HPV is the causative factor in other cancers including anal and oropharyngeal cancers. HPV vaccines have been introduced and funded provincially, yet vaccine uptake is relatively low. I will review the efficacy of these vaccines, why there are so many myths and incorrect information being spread about the HPV vaccine and discuss how we can overcome these hurdles.

#### Speaker Bio

Karen is a certified project manager and laboratory professional with over 20 years of lab experience, both in Canada and the United States. As a trained cytotechnologist, Karen worked in numerous settings in Winnipeg, Vancouver, Honolulu and Seattle. She later caught the project bug and obtained a graduate certificate in project management from Northeastern University. In 2013, Karen moved back home to Winnipeg and has been working for Shared Health overseeing numerous projects and initiatives. Over the years, Karen gained a personal interest in HPV and related cancers and will happily talk to anyone that is willing to listen about it!

P03: Lab Wisely: Choosing Wisely Recommendations for Medical Laboratory Professionals in Canada

Laura Zychla Amanda VanSpronsen, MSc, BSc (MLS), MLT Valentino Villatoro, MEd, BSc (MLS), MLT Christine Nielsen, BHA, MLT, CAE

#### **Learning Outcomes**

- Understand the importance of appropriate test utilization
- Discuss the need for improved laboratory test utilization in Canada and identify the effects it has on the health system, health professionals, the lab and patients
- Discuss the new Choosing Wisely Canada recommendations created for medical laboratory professionals and validation process to create these
- Identify the role of medical laboratory professionals in laboratory test utilization projects locally and determine ways you can contribute
- Review the tools and resources that were created which support the Choosing Wisely Canada recommendations

#### **Session Description**

Research has demonstrated that large differences in laboratory test utilization exsist between practitioners in many countries. Canada, is no exception. Almost \$6 billion is spent annually on lab testing by provincial and territorial governments, and about 10% of that is unnecessary.

In 2018, the CSMLS and University of Alberta, Medical Laboratory Science Division partnered on a project to facilitate the medical laboratory professional's position in reducing unnecessary testing in the healthcare system. Together, with the support of CSMLS volunteers and medical laboratory stakeholders, the team has created Choosing Wisely Canada recommendations for medical laboratory professionals. In addition, complementary tools and resources have been created to support greater awareness and involvement in laboratory utilization projects.

# **Speaker Bios**

Laura Zychla holds research positions with the CSMLS and Cancer Care Ontario. She has an extensive consulting background in research and analysis, with a focus on creating evidence-based health and education policy for the applied health professions. She has been highly involved in the creation of competencies for the Clinical Specialist Radiation Therapist and Personal Support Worker professions.

Amanda VanSpronsen is an associate professor in medical laboratory science at the University of Alberta, and her research interests include MLT professional development and appropriate laboratory utilization.

Valentin Villatoro completed his MEd in Health Sciences Education, and he continues to build his expertise in pedagogy and ways to engage learners.

Christine Nielsen became chief executive officer of the Canadian Society for Medical Laboratory Science in 2010. She is a medical laboratory technologist, with a degree in Health Administration and a Certified Association Executive, with a Certificate of Mastery in Prior Learning Assessment from the Council for Adult and Experiential Learning at DePaul University in Chicago. Christine is currently completing an MBA from the Edinburgh School of Business, Scotland.