

# Medical Laboratory Technology

**Professional Practice Leader (Charlton):**  
**SUSANNE MAIA, MLT, BTech**

**Number of Members of Discipline:**

This includes all sites\* of the Hamilton Regional Laboratory Medicine Program

- Medical Laboratory Technologists (MLT) – 384
- Medical Laboratory Assistants (MLA) - 181

## Major Achievements

### Caring

#### HRLMP—Program Wide

- Successful implementation of new Laboratory Information System— EPIC Beaker, Wellsky and Biotherapies.

#### Anatomical Pathology

- Expansion of solid tumour testing to align with new CCO standards of care for a variety of indications.
- Validation of Epstein-Barr Virus (EBER CISH) in Immunohistochemistry.
- Breast HER2 Testing transitioned from 2 day manual test to 6 hr automated test.

#### Clinical Chemistry and Immunology

- Repatriated 1,25 Dihydroxyvitamin and Myositis Antibody Panel.
- Expanded Paraneoplastic Antibody Panel and added Encephalitis Antibody Panel.

#### Core Laboratory

- Program-wide validation and implementation of new coagulation analyzers.
- Advanced skill mix to broaden MLA scope of practice.
- Consolidation of: Phenobarbital to MUMC Core, DOACS to HGH.

#### Genetics

- New assays introduced: Entrogen Acute Leukemia Assay, Oncomine Precision Assay, Redesign of TCRG Fragment Analysis Assay.
- Expanded Multiple Myeloma FISH Panel (Included additional target (1p1q CKS1B/CDKN2C)).
- Transitioned Hereditary Cancer Testing from MiSeq to NextSeq instrumentation.

### Scope of Practice

*The practice of medical laboratory technology is the performance of laboratory investigations on the human body or on specimens taken from the human body and the evaluation of technical sufficiency of the investigations and their results.*

## **CARING** continued...

### **Histocompatibility**

- Successful ASHI accreditation

### **Microbiology and Virology**

- Successful Public Health Agency of Canada (PHAC) Inspection
- COVID-19 sequencing transferred to SJHH Virology site from MUMC Genetics — HRLMP is one of 5 labs participating in the Ontario COVID-19 Genomic Network
- Validated new susceptibility panel for multi-drug resistant organisms

### **Point of Care Testing**

- Pediatric POCT Expansion of Scope: Routine Urinalysis, Whole Blood (BHBA) monitoring, Critical Care Blood Gas with Chemistry
- Nitrazine embedded pH paper for Labour and Delivery Units

### **Special Coagulation**

- Successful implementation of new Werfen coagulation analyzers
- Improved reporting and interpretation of many investigations such as Lupus Anticoagulant test results

### **Transfusion Medicine**

- Hospital Emergency Blood Management Plan
- Increased automation for group confirmation
- Successful Health Canada Visit in Stem Cell
- Successful Canadian Blood Services Visit in Stem Cell

## **Learning**

### **Internal Teaching**

- Training program for Residents/Fellows
- Training program for Medical Laboratory Technologist students:
  - St. Clair College – General MLT
  - Michener Institute for Education at UHN — General MLT
  - Michener Institute for Education at UHN — Genetics MLT
  - Michener Institute for Education at UHN — Diagnostic Cytology MLT
  - Ontario Tech University — General MLT
- Training program for Medical Laboratory Assistant students from Mohawk College
- Training new MLT, MLA and PAs across the HRLMP

### **Formal Teaching**

- Mohawk MLA program instructors
- Clinical Coordinator, Genetics Program, Michener Institute for Education at UHN
- Clinical Coordinator, Cytology Program, Michener Institute for Education at UHN
- Clinical Instructor, Transfusion Medicine, Michener Institute for Education at UHN

### **Clinical Teaching**

- In-services in clinical area

## Learning continued...

### Research

- HRLMP participated in 105 research studies in collaboration with disciplines/departments and health professionals across SJHH, HHS and beyond.

### Publications

- HRLMP produced >220 publications and >50 abstracts and posters, where several were authored by Medical Laboratory Technologists.

## Building

### Internal Education

- Participated in nursing annual review sessions cross HHS sites.
- Development of Clinical Phlebotomy Education Program.

### Professional Practice Development

- Enrollment in MBA program.
- Enrollment in Quality Management Certificate program.
- Enrollment in Clinical Management Certificate program.



## Leading

- Successful Accreditation Canada Diagnostics Surveillance and ISO 15189 Accreditation Visit.

### Committees

- Consultants to the External Quality Assurance (EQA) division of the Institute for Quality Management in Healthcare (IQMH)
- Provincial assessors for Accreditation Canada Diagnostics Laboratory Accreditation Program
- Member, St. Clair College Medical Laboratory Science PAC
- Member, Mohawk College MLT Professional Advisory Committee
- Member, IQMH Cytology Scientific Committee
- Member, Program Advisory Committee, Division of Laboratory Medicine, Michener Institute
- POCT Testing Advisor
- Member of the Ontario IQMH Virology Committee
- Member, IQMH Advisory Panel
- Chair of the Royal College of Physician and Surgeons Medical Microbiology Examination Committee
- Member, LHIN Transfusion Medicine Working Group
- Member, Ontario Regional Blood Coordinating Network Regional Advisory Committee South Western Region
- Member, Southern Ontario Transfusion Services Network Planning Committee
- Co-Chair, Ontario Transfusion Transmitted Injuries Surveillance System Education Committee
- CMMTG laboratory committee
- Member, Canadian Society for Transfusion Medicine – Standards Committee
- Member, Ontario Transfusion Quality Improvement Plan Steering Committee

## Major Initiatives for 2023:

### Caring

- Verification of new analyzers in Immunohistochemistry.
- Verification of new automated tissue embedders for Anatomical Pathology.
- Verification of new analyzers in CCI — Optilite serum protein analyzers and new UPLC analyzers .
- Verification of new analyzers in Biochemical Genetics — new GC-MS and new LC-MS/MS instruments.
- Verification of next generation flow cytometer instrumentation in Malignant Hematology.
- Verification of Next Generation Sequencers for HLA.

### Learning

- Increasing capacity for MLT and MLA learners within the HRLMP.
- Planning for successful Accreditation Canada Diagnostics and ISO 15189 accreditation visit .

### Building

- Participate in the virtual National Medical Laboratory Week Celebrations.
- Participate in the virtual Rapid Fire Showcase.

### Leading

- Further development and implementation of HRLMP strategic plan.
- Consolidation of Red Cell Disorders laboratory to Clinical Chemistry and Immunology laboratory at HGH.
- Planning for the consolidation of genetic services.
- Planning for the consolidation of pathology services.

