Endometrial Carcinoma

Endometrial carcinoma (EC) is the fourth most common cancer in women after breast, lung and ovary. It is a malignant neoplasm arising from the uterine epithelial lining. The survival rate is variable but generally good for early stage lesions at around 90%. This decreases with higher stage of disease and especially if it has spread beyond the uterus, wherein the survival rate decreases to around 60% in general.

Risk factors for endometrial cancer include age greater than 50 and a postmenopausal state. Higher numbers of menstrual cycles is also a risk factor. Signs and symptoms include pelvic pain and uterine bleeding in post-menopausal women.

Treatment of endometrial carcinoma involves surgery, including total hysterectomy often with bilateral tubes and ovaries as well as sampling of other areas of pelvis and abdomen. Lymph node resection may also be included. Additionally, depending upon the stage, radiation and potentially chemotherapy may also be part of the treatment approach.

The pathologist's report is a very important part of this approach to patient care. The specimens are carefully examined to determine the type of cancer, the depth of invasion into the uterine wall, whether it extends downwards towards the cervix which increases the stage, as well as the examination of tissue samples from other areas and organs and the regional lymph nodes to look for metastatic disease.
More recently, the addition of some newer molecular findings has created an opportunity for more precision or a personalized medicine approach for these patients and enabled a more subtype-specific approach. The advantages this has created has the potential to completely change the current risk stratification for patients with endometrial carcinoma and create more refined decision making with respect to optimizing treatment and outcomes. (Figure 1)

Inconsistencies in the management of endometrial carcinoma (EC) persist in part due to inter-observer variability in grading and histotype designation, and thus risk assignment. The Cancer Genome Atlas (TCGA) informed molecular classification of EC is reproducible and provides prognostic and predictive information while also identifying women who may have inherited cancer syndromes. Herein we describe the molecular subtype distribution and histo-morphologic correlates in a nation-wide cohort of ECs.

Update on the Pan Canadian ProMisE Study: Endometrial Carcinoma Molecular Subtype is associated with Pathologic and Prognostic Indices: Findings from a National Study

This study has been conducted through Vancouver General Hospital, BC with participation from 24 Canadian Cancer Centers with identified Gon Oncologists and Pathologists. The JHCC centre has participated and contributed 103 endometrial cancers diagnosed from Jan-Dec 2016. 1453 cases were collected with representative tumour samples and clinicopathologic data for all ECs diagnosed in the calendar year 2016. Proactive Molecular risk classifier for Endometrial Cancer (ProMisE) subtype was determined by immunohistochemistry for mismatch repair (MMR) and p53 proteins performed on whole stained sections, and by focused sequencing for mutations in polymerase epsilon (POLE) gene. Complete molecular and clinical outcome data is ongoing with 278 completed cases to date. (Figure 2 and Figure 3)

Conclusion:

The molecular subtype of EC is of prognostic significance and correlates with histotype, with the most variation in molecular subtype seen in endometrioid carcinomas. We identified considerable variability in the use of immunomarkers that allow for molecular subclassification of EC at the time the cases in this study were reported (2016), and little uptake in the reporting of LVI as focal or extensive. Prospectively, based on the surrogate practical ProMisE tool, endometrial cancers prognostically classified by molecular classification may shed light into better and more improved treatment and precision therapy for these tumours.

Figure 1:

![Image](http://example.com/image1.png)

Figure 2:
Figure 3:

By:
Dr. Monalisa Sur, Pathologist, HRLMP
Dr. Alice Lytwyn, Pathologist, HRLMP

News from Administration

Congratulations to Sandra Fazari, who has been appointed Director of Laboratory Operations, HRLMP.

Sandra began her career as a MLT in Transfusion Medicine and went on to hold the positions of Senior Technologist; Technical Specialist; Manager of Transfusion Medicine, Stem Cell and the HLA laboratory; and most recently Acting Director of Laboratory Operations since July 2019.

To read more of Sandra’s numerous accomplishments and the full announcement, please click on the link below:
Sandra Fazari Announcement October 21, 2019.pdf

Dear colleagues,

It is with mixed emotions that I announce that Rebecca Repa, Vice President, Clinical Support Services and Surgery, will be leaving the HHS family later this year to take on a new role as EVP, Clinical Support and Performance at University Health Network.

Rebecca’s achievements echo beyond our own walls. Rebecca has helped shape the coordination of healthcare in our region since she first joined St. Joseph’s Healthcare Hamilton in 1994 and HHS in 2008 in the role of Integrated VP for Diagnostic Imaging and Laboratory Medicine.

Please join me in thanking Rebecca for her extensive contributions to HHS and our community. We wish her success in her future role at the University Health Network.

In addition, I am pleased to inform you that Leslie Gauthier has agreed to assume the role of Interim Vice President, Clinical Support Services and Surgery, following the departure of our colleague, Rebecca Repa. A transition planning process will begin shortly, with further updates to follow.

Dr. Wes Stephen, Executive Vice President, Clinical Operations and Chief Operating Officer, HHS.

To read the full announcements, please click on the link below:
Rebecca Repa Announcement_Sept 27, 2019.pdf
Leslie Gauthier Announcement_October 4, 2019.pdf
We would like to welcome back Joanne Warner to our HRLMP administrative offices to provide temporary coverage through the recruitment process for a new program secretary.

The HRLMP and the Department of Pathology and Molecular Medicine, McMaster University, has embarked on a strategic planning process.

More to come as this process unfolds.

October 9, 2019

Dear HRLMP Faculty and Staff:

RE: Launching of HRLMP Strategic Plan and Site Visits with Deloitte

The Hamilton Regional Laboratory Medicine Program, together with the Department of Pathology and Molecular Medicine at McMaster University, has embarked on a strategic planning process.

Deloitte has been retained to help with this process, specifically John Gilmour and Seaghan Woldai. Both John and Seaghan will be on site and conducting laboratory tours over the next few months to get more familiar with our work and processes and to gather staff input and other information to help inform the strategic plan.

The first site visit by John and Seaghan, accompanied by HRLMP executive leadership, is scheduled for Tuesday, October 15, 2019. Please extend a warm welcome to John and Seaghan as they make their way through the HRLMP Laboratories.

Sincerely,

Gail, Marek, and Murray

/dfk

Education News

Registration is open for the 12th Annual HRLMP Rapid Fire Showcase, and will be held in the Miller Amphitheatre at St. Joseph’s Healthcare Hamilton on November 23, 2019.

Click on the link to register: http://tinyurl.com/rapid-fire-showcase

Attendees from last year’s event had these comments:

• “What an amazing event. I really enjoyed it...”
• “We have a lot of very talented people in the HRLMP”
• “Wonderful topics and speakers! Looking forward to next year.”
News from Chemistry

Congratulations to Dr. Jack Gauldie, Member of the Order of Canada.

“Dr. Gauldie is a giant in the Faculty of Health Sciences. He is renowned for his extensive scientific investigation in the molecular manipulation for the treatment of diseases.”

~Dr. Paul O’Byrne, Dean, Faculty of Health Sciences, McMaster University

It is an honor when one of the HRLMP’s technologists win an award but this one is extra special as this award was set up and named after one HRLMP’s own genetic technologists. Dr. John Waye was one of the individuals that helped set up that scholarship in her name.

To read more about Margie (Margaret) Patterson please click on the link below:
Margaret Patterson_1952-2005_Michener Institute Genetics Award.pdf

News from Genetics

Congratulations to Valerie Jabra, a HRLMP Genetics Technologist for winning the Margie Patterson Memorial Scholarship in Molecular Genetics from the Michener Institute of Education at UHN in Toronto.

The criteria for this award include excellent technical skills, professionalism, academic excellence (minimum GPA: A-), demonstrated leadership skills and commitment to improving the lives of others and demonstrated effectiveness to work individually and as part of a health care team.

All the best to Nancy Moreau, Cytogenetics technologist as she embarks on a new career, retirement.

Nancy worked for many years in Cytogenetics laboratory analyzing oncology FISH cases and she will be missed by her colleagues.

We wish her well in future as she starts this new chapter in her life.

We want to extend warm welcome to our new laboratory staff, Ashling Kelly, Lisa Bourque and Cheryl Wilson.
Hematology News

**Dr. Ronan Foley**, Malignant Hematologist and Head, Stem Cell Laboratory, HRLMP speaking about CAR-T therapy at *Canadian Hematology Conference* (CHC), on September 10, 2019 in Toronto, Ontario.

**Dr. Catherine Hayward**, Hematologist and Head, Special Coagulation Laboratory, HRLMP presenting at the *World Association of Societies of Pathology and Laboratory Medicine* (WASPaLM) meeting in Xi’an, China that was held September 19 to 21, 2019.

**Felicia Dollinger**, a MLT in our Transfusion Medicine Laboratory, presented a patient case at the *Golden Horseshoe Education Supporting Transfusionists* (GHEST) 2019 meeting held in Hamilton, Ontario, on September 21, 2019.

Happy Hallowe’en

Staff from the HRLMP Red Cell Disorder, Molecular Hematology and Genetics laboratories were out in full costume in support of the *McMaster Children’s Hospital Halloween Parade* held on October 31, 2019.

Super Mario at its best

Microbiology News

**Congratulations** to **John Korver**, Manager of Microbiology, HRLMP as he celebrates *50 years in the laboratory*.

John has seen a lot in his fifty years in the microbiology lab at Hamilton Health Sciences! He started back when it was commonplace to have a cigarette hanging from your lips while you worked on specimens.

His interest is rooted in the fact that “he is passionate about laboratory technology and welcoming to change. He has eagerly ushered in
technological advancements that might have intimidated less eager folks. When asked about the biggest transformation he has experienced in his fifty year career, he enthusiastically explains the automation that has allowed the microbiology lab to process specimens more efficiently.” Congratulations John for achieving this amazing milestone!

Click on the link below to read the full story of John’s amazing 50-year career in the laboratory: https://www.hamiltonhealthsciences.ca/share/50-year-employee-lab/

**News from Pathology**

![Welcome](image)

**Welcome** to our two new pathologists’ assistants to the HRLMP pathology program!

**Megan Lefrancois** is a recent graduate from the Master of Clinical Science Pathologists’ Assistant Program at the Schulich School of Medicine and Dentistry at Western University.

**Natalie Fair** comes to us most recently via the Forensic Unit at the Hamilton General.

We are so excited to have them both on board!

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![Happy Retirement](image)

**Congratulations** to **Russell Rogers** on his retirement from HRLMP!

Russell has been a foundational member of the Pathologists’ Assistant group at HRLMP for many years and he will be greatly missed!

In honour of Russell’s last day October 31, 2019, the entire department dressed up as Russell - Russell’s were everywhere!

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![Research News](image)

**Research News**

![Josephine Baldwin](image)

**Josephine Baldwin** is hanging up her lab coat.

After 44 years in Laboratory Medicine, and 20 years as the HRLMP Laboratory Research Coordinator, **Josephine Baldwin** is hanging up her lab coat.
Josephine’s last day was September 30, 2019.

Dr. Smieja, HRLMP Interim Chief, stated “Josephine’s quiet demeanor, attention to detail, and her practical roll-up-your-sleeves and get-the-work-done attitude has been critical to the success of these many studies”.

We all wish Josephine all the best as she embarks on this new journey – you will be missed!

Please click on the link below to read the full announcement from Dr. Smieja: Josephine Baldwin Retirement Announcement_27sept19.pdf

We would like to welcome Mackensey Bacon into the role of HRLMP Research Coordinator.

Please contact Mackensey by email baconmack@HHSC.CA or by phone to discuss current and upcoming research projects.