After the historic move of the Royal Victoria Hospital, the MUHC Department of Pathology has now become active at the new Glen site. I recently had the opportunity to sit down with Marie Vachon, the department’s chief administrative coordinator, to talk about the big move and get her perspective on the planning and execution of this extraordinary relocation to the new world-class facility at the Glen site.

Hired at the MUHC in March 2011, Marie Vachon was promptly presented with the initial draft of the plan and design of the department at the new facility. What may seem like a daunting project to most of us was actually very appealing to Marie, and one of the deciding factors that lead her to accept the job. Her previous experience with the re-design and merger of the Core Molecular Diagnosis Lab at Ste-Justine Hospital made her an obvious choice to lead this crucial endeavor at the MUHC. When faced with a move of this magnitude, Marie explains that intimate knowledge of the department is key. She set out to align the goals of the move with the current limitations confronting the various pathology labs located at the different sites.

Moving MUHC Pathology—where to begin?

Moving Pathology to the Glen involved her obtaining a good grasp of how the multi-site labs were functioning in their current state by closely examining the processes and procedures in reference to best practices already identified in the health care industry. It was also important for her to involve the pathologists when identifying inefficiencies and issues that were already afflicting the workflow process. Marie worked very closely with Dr. Kevin Watters, Associate Chief of Pathology, and with the medical directors of each division.

With the ultimate goal of adopting best practices to provide the highest quality of care, the Chief of Pathology, Dr. Zu-hua Gao, proposed that the department consider employing the Lean/Six Sigma approach to streamline the workflow processes and reduce operating inefficiencies.

(Read full feature article on page two and three.)
This noteworthy approach for optimizing operational performance has been successfully employed in the healthcare sector to generate significant benefits for patients, clinicians and employees. After learning more about this methodology, Marie agreed to introduce a pilot project at the MGH to test the application of the Lean philosophy before the move.

Working together as a multidisciplinary team of managers, pathologists and technicians, this exercise allowed Marie to re-evaluate the workflow process using the Lean/Six Sigma set of principles. The results of this pilot project clearly demonstrated defects that impeded the effectiveness of the technical operations which needed to be addressed to achieve a fluid workflow. As a result, the Lean/Six Sigma was adopted to improve the quality and efficiency of the current MUHC workflow and help design and prepare for the transition to the Glen Campus.

Creating these efficiencies to optimize performance also involved the standardization of specimen processing. The previous merger of the MCH central lab for pediatric service with adult pathology at the MGH also provided a good opportunity to learn how the adoption of new standardized protocols would take effect prior to the move. Each site had their own unique operating style and with the merging of these labs, medical technicians were obliged to learn a new standardized approach. “In certain cases, having worked a particular way for 15 years and suddenly having to adopt a new operational procedure proved to be a major challenge for some medical technicians and took a great deal of time for them to adapt”.

Looking back, Marie realizes how wise it was to undertake this pilot merger before the move to Glen because “the technical team has become more cohesive as a result, and better prepared for their eventual move to the Glen, having had a years’ worth of experience working together as a team under this new standardized approach”.

**Breaking it down: layout and design**

When Marie began planning for the move in April 2011, her leadership role necessitated obtaining a global view of how this move would affect the department as a whole. To her, this global perspective was necessary prior to meeting with the architect and design team. To undertake this meant having to consult with all of the stakeholders and gather all of the information that would be required to embark on this transition, with as little disruption and in the most transparent way possible. To accomplish this global task, Marie met with all the individual teams to determine the goals of each sector, understand their needs, and resolve their issues with workflow. This allowed her to perceive the potential impact from their point of view.

Once the meetings with the architect got underway, Marie’s inclusive approach involved the medical directors and technical coordinators from each division. Representatives from all sides needed to participate to ensure the architect was mindful of the various perspectives when designing the space. If one of the directors was unable to attend one of these meetings Marie had their pager numbers handy should any questions arise that required their input. For the most part, the architect worked alongside Marie and her advising team and was able to incorporate their valuable insights when designing the interior space.

One of the major differences to be appreciated at the Glen is the layout and design of the new lab with state-of-the-art equipment. It is very impressive and a site to behold. To make it more efficient, the lab has been re-designed to complement the workflow and optimize performance by taking into consideration the previous workstation limitations and ergonomic problems.

**Advantages and challenges**

Centralizing the operations and putting an end to the multi-site organization of the department will be a major advantage with the new consolidated MUHC complex at the Glen. The immediate benefits include a more streamlined workflow with less redundancy and better supervision of quality. Redundancy was unavoidable with the previous multi-site organization. At the Glen, these independent labs are now physically interconnected; creating efficiencies in specimen processing that were unachievable beforehand. Where previously specimens had to be packaged and transported between different sites, a very time-consuming and inefficient process, the design of the new lab allows for the specimen to flow seamlessly from one station to another until it is processed for examination by the pathologists.
The proximity between all personnel also lends itself to building a stronger team and richer team spirit. Marie considers this consequence of the merger to be most advantageous, with the caveat that harmonizing three different working cultures from the RVH, MCH and MGH remains a significant challenge. In light of this, she believes that the collective goal of performance optimization in pathology service, and the allowance of time for staff to adapt to the new standardized approach will ultimately encourage cohesion of the team and harmonization in the workflow. Marie’s philosophy on building team spirit and resolving problems involves creating a forum where team members are encouraged to vent their frustrations and express their concerns and where they can be kept informed and included in the decision-making process.

Pathology recently introduced “extended working hours”, a new administrative policy that directly impacts working conditions. Across Quebec, pathology departments have traditionally been operational only during the day shift on weekdays. With the Ministry of Health centralizing more and more laboratory activities, pathology services will have to adapt to the changes by extending their hours of operation into the night shift. This is a new concept for lab personnel who are accustomed to working only day shifts during the weekdays. The overall goal of this strategy is to provide better diagnostic service to patients by reducing the turnaround time from initial sample acquisition to the availability of processed slides for pathologists. For patients with a diagnosis of cancer, providing timelier service will allow the patient to seek treatment earlier than previously expected.

**Next steps**

With the successful relocation of the RVH staff, phase one of the move is complete. Now the emphasis is on re-stabilization, synchronization of the workflow and resolving the current issues - ID card access, printers, and transportation to name a few – in preparation for the upcoming phase two MCH move near the end of May. Given the recent experience with the RVH move, Marie anticipates a smoother transition from closing the lab at the MCH to re-establishing it at the Glen. Although existing Glen staff continue to adapt to their new working conditions, they have already been trained and will be able to assist arriving staff members with orientation and ease their transition to the new facilities and integration with the team. The MGH relocation will follow in June and will complete phase three of the move. Marie and her advising team will continue to review, harmonize and make adjustments over the summer before upcoming projects such as bar coding and voice recognition can be initiated.

**Looking back**

At this point, Marie realizes the need for improved communication when dealing with the relocation of three different sites. The process of moving also involves an understanding of what to keep in mind to better anticipate the consequences and possible outcomes. Looking back, the biggest challenge she and her team faced was managing “your routine responsibilities in parallel with planning the move”. Already stretched enough, organizing the relocation of the lab on top of an already demanding workload pushed everyone on her team to the max.

Marie continues to be motivated by this challenge and expresses her pleasure with being given the opportunity to lead this milestone project. Always poised and optimistic, Marie’s leadership is apparent as she remains confident in pursuit of this goal and passionate about facing these challenges. She is also enormously grateful to her team and acknowledges their efforts at every opportunity. She takes great pride in her team and their efforts and support during this remarkable endeavor.

“Thank you to everyone who supported their colleagues and covered for them during those times when they needed to devote their time to this project. You may not have been directly involved in the planning, but your support in this regard has not been overlooked!”
The 104th Annual Meeting of the United States & Canadian Academy of Pathology took place this year in Boston, MA from March 21 to 27, 2015. This internationally recognized annual meeting is the world’s largest meeting of pathology professionals offering a myriad of unique opportunities to learn, and collaborate. Among the thousands of participants that apply to have their scientific abstracts accepted and presented at this meeting each year, 16 abstracts were presented from the Department of Pathology:

**USCAP 2015 abstracts**

- **Fadi Brimo, Ayoub Nahal, Yonca Kanber, Derin Caglar, Manon Auger.** *Non Urothelial Malignancy in Urine Cytology: Frequency, Detection, and Cytological Features*

- **Bin Xu, Manon Auger, Fadi Brimo.** *Urine Cytology: Does the Number of Atypical Urothelial Cells Matter for Distinguishing the High-Grade Urothelial Carcinoma (HGUCA) From the Suspicious for HGUCA Cytological Categories?*

- **Chantale Morin, Tuyet Nhung Ton Nu, Runjan Chetty, Patricia A Shaw, et al.** *Defining Staining Patterns of Mismatch Repair Immunohistochemistry in Gynecologic Malignancies.*


- **Steven Smith, Kiril Trpkov, Rohit Mehra, Mukul Divatia, Ondrej Hes, Santosh Menon, Sergio Tripodi, Jonathan McHugh, Fadi Brimo, Anthony Gill, et al.** *Is Tubulocystic Carcinoma With Dedifferentiation a form of HLRCC/Fumarate Hydratase-Deficient RCC?*

- Snehal Patel, Navid Farahani, **Myriam Chevarie-Davis**, Pao Andy, Angela Aguiluz, Christian Riley, Jennelle Hodge, Serhan Alkan, Jean R Lopategui. *Next Generation Sequencing (NGS) Identifies Mutational Distinction Between Synchronous and Metastatic Distases of Colorectal Carcinoma (CRC).*

- **Chelsea Maedler, Yutong Yang, Wassim Kassouf, Fadi Brimo.** *The Value of Routine Expert Pathology Review in Patients With Bladder Cancer.*


- **Tuyet Nhung Ton Nu, Chantale Morin, Blaise Clarke, et al.** *BRG1 Immunohistochemistry in the Diagnosis of Small Cell Carcinoma of the Ovary, Hypercalcemic Type.*

- Pablo Zoroquiain, Sarah Alghamdi, Natalia Vila, Vasco Bravo-Filho, **Patrick Logan**, Michael Kapusta, John Chen, **Miguel N Burnier**. *Discarded Casette Content From Routine Vitrectomies Includes Tissue That Provide Valuable Information in Diabetic Patients.*

Congratulations Fadi!

Fadi Brimo, Chantal Atallah, Gangyong Li, John R Srigley. Cystic Clear Cell Tubulo-Papillary Renal Cell Carcinoma (CCTP-RCC): Is Multilocular Clear Cell Cystic Neoplasm of Low Malignant Potential (MCCN LMP) Related To CCTP-RCC?

Kiril Trpkov, Ondrej Hes, Abbas Agaimy, Petr Martinek, Cristina Magi-Galluzzi, Fadi Brimo et al. IHC Screening of Unclassified RCC Detects Tumors Associated With HLRCC.

Sydney Card, Guy-laine LeFebvre, Alex Ferenczy, Catherine J Streutker, Eleanor K Latta. Morphologic Changes in the Gynecologic Tract in Response To Fibrinolysis.

Cristina Storoz, Oluyomi Ajise, Myriam Chevarie-Davis, Yasser Riazalhosseini, Bin Xu, Fadi Brimo. RBFOX1 Immunoexpression in Renal Tumors.

Cristina Storoz, Oluyomi Ajise, Myriam Chevarie-Davis, Yutong Yang, Yasser Riazalhosseini, Bin Xu, Fadi Brimo. The Role of BCBP2 in Renal Tumors.

You are invited to attend Finlayson Research Day
Friday, June 19th, 2015
McGill University Faculty Club, 3450 McTavish Street

This year’s keynote speaker will be
Dr. John Hart, Professor of Pathology
University of Chicago

Dr. John Hart's clinical area of expertise is in gastrointestinal and liver pathology.

He serves as a consultant for problematic cases involving the pathology of Barrett's esophagus, celiac disease, ulcerative colitis and Crohn's disease, liver tumors and medical liver diseases.

His research interests include colonic and hepatic carcinogenesis.
News from the Henry C. Witelson Ocular Pathology Laboratory

ARVO 2015 – Association for Research in Vision and Ophthalmology

For the past ten years, the Henry C. Witelson Ocular Pathology Laboratory has been one of the largest participants at ARVO’s annual meeting. This year’s ARVO meeting took place in Denver, Colorado from May 3-7, 2015. We are very proud to have had a total of seventeen posters and eight presentations this year, one of our largest representations to date.

ARVO Meeting Abstracts 2015

♦ Gonadotropin releasing hormone receptor is expressed in retinoblastomas and a retinoblastoma cell line.  

♦ Diagnosing pathological factors in retinoblastoma: correlation between traditional microscopy and digital slides.  

♦ PAR-1 and Maspin expression in Retinoblastoma and their correlation with histopathological prognostic features.  

♦ Pericyte loss in vitrectomy samples is a sensitive and specific marker of diabetic retinopathy.  

ARVO Meeting Presentations 2015.

♦ Evaluating the in vivo efficacy of a novel first in class drug for the Treatment of primary uveal melanoma.  

ARVO Meeting Presentations 2015.

♦ Topographic distribution of ocular vascular lesions: a 20-year study.  

♦ A large series of blind painful eyes: potential causes and associated histopathological features.  

♦ HSP90 expression is a useful tool for the differential diagnosis of ocular surface squamous neoplasia.  

♦ Blue light filters prevent light-induced angiogenic factor secretion by retinal pigmented epithelial cells.  
   N. Vila, P.T. Logan, V. Bravo-Filho, N. Young, P. Zoroquiain, M.N. Burnier

♦ Clinical and histopathological characteristics of periocular basal cell carcinoma in a low UV geographic region.  

♦ A novel classification of canine uveal melanoma: the importance of melanocytoid-type of uveal melanoma in dogs.  
   M.N. Burnier Jr., S. Bakalian, E. Mayo-Goldberg, E. Perlmann, P.S.M. Barros, N.E. Mayo

♦ Phenotypic heterogeneity of uveal melanoma cell lines  

♦ Effects of ranibizumab and amfenac on the functional abilities of uveal melanoma cells.  

♦ The Importance of Sox-10 Expression in Uveal Melanoma.  

♦ Programmed cell death ligand 1 is highly expressed in uveal melanoma.  
   P. Zoroquiain, D.F. de Souza, J. Mansure, M.F. Qutub, J. Portela Passos

♦ Sirtuin 2 expression in uveal melanoma correlates with metastasis in an animal model.  

♦ The effects of acetylsalicylic acid as an anti-tumor agent in a metastatic ocular melanoma cell line.  

For more information about the Henry C. Witelson Ocular Pathology Laboratory please visit their website at:  
http://www.mcgill.ca/ocularpathology/
**Carlos M. Telleria, PhD** will be joining the Department of Pathology at McGill University as a Full Professor (Research) in August. Originally from Argentina, he obtained a PhD in Biochemistry from the University of San Luis, Argentina in 1994, before completing two consecutive post-doctoral fellowships in reproductive endocrinology, first at the National Council for Science and Technology Research, Argentina in 1995, and then at the University of Illinois at Chicago in 1998. Not long after, Dr Telleria accepted a tenure track position in the Division of Basic Biomedical Sciences at Sanford School of Medicine, University of South Dakota. His was been appointed as a Full Professor with tenure at this institution in 2014.

His primary area of research is in the field of ovarian cancer biology and preclinical therapy. His current investigations are tailored to understand the pathobiology of ovarian cancer within the microenvironment of the peritoneal cavity, in order to study the molecular mechanisms driving dormancy of cancer cells that had survived chemotherapy, and to exploit protein homeostasis to develop therapies for non-dividing cancer cells. He has received numerous honors and awards and has published over 53 articles in peer-reviewed journals.

Dr. Telleria will lead the creation of a cancer biomarkers-oriented translational research lab at the Duff Building. The development of this lab is part of the Departmental strategy to reinforce its activities in research, and increase its visibility and influence in translational research. Dr. Telleria will also continue to pursue with the advancement of his own research program on secondary resistance to chemotherapy in ovarian cancer. He will bring his own models and will undoubtedly develop a strong scientific interaction with the gynecologists at the MUHC and JGH, and with additional scientists at all McGill sites.

Members of the department have expressed their enthusiasm with Dr. Telleria’s recruitment and are looking forward to his arrival.

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**Dr. Farshid Razaghi, MD**

Dr. Razaghi joined the Department of Pathology at McGill University as an Assistant Professor (Clinical) in April 2015. He received his MD in 1997 from the “Beheshti” University of Medical Science in Tehran, Iran, and underwent residency training in Pathology at McGill University from 2008-2013. This was followed by fellowship training in Cytology at Dartmouth-Hitchcock Medical Center in New Hampshire, USA. He is certified in Anatomic Pathology by the Royal College of Physicians and Surgeons of Canada.

Dr. Razaghi is currently working as a staff pathologist at St-Mary's Hospital and actively participates in the teaching of medical students and residents.

His area of clinical expertise is in Cytology, Soft Tissue and Bone Pathology, Dermatopathology and Gastrointestinal pathology.
Farewell to the Royal Victoria Hospital

The iconic Royal Victoria Hospital nestled on the slopes of Mount Royal at the top of University St. has been part of Montreal’s urban landscape for more than 120 years. On April 26, it relocated all of its health services to the new consolidated MUHC complex at the Glen. This momentous move has been the biggest in the country’s history. As many as 154 patients were transferred from the Mount-Royal location to the $1.3-billion superhospital in Notre-Dame-de-Grâce, at an estimated cost of $10 million.

The new Glen site of the MUHC promises to offer a facility representative of 21st century medicine and will house the Royal Victoria Hospital, Montreal Children’s Hospital, Montreal Chest Institute, Cedars Cancer Institute and the MUHC Research Institute, each with a separate entrance.

A new vocation for the RVH

This magnificent vacated Montreal landmark is also at the focal point of McGill University’s need to extend its campus and acquire much needed additional square footage. McGill has had its eye on the RVH for some time and recently outlined its vision to the Montreal Board of Trade. A vision that would strip the 120-year-old institution while preserving its heritage buildings to create classrooms, research facilities and administrative offices.

Ideally, McGill would like to see the reconstruction finished by 2021 to coincide with the university’s 200th anniversary, but not before they can come up with an additional $4 million toward a feasibility study that Quebec is prepared to undertake to determine the state of the buildings, many of which date back to 1893.

Do you have a news story?

The McGill Department of Pathology Newsletter is published four times a year. It is available by email and on the Department webpage at http://www.mcgill.ca/pathology/newsletter

If you would like to submit an article or receive the newsletter by email, please contact the Editor at carolynna.olha@mcgill.ca

Deadline for submissions to the Winter issue is July 15, 2015