PATIENT AT HEART, SCIENCE IN HAND - THE NEW CURRICULUM

Dr. Joyce Pickering, Vice-Chair, Education, Department of Medicine & Interim Physician-in-Chief, MUHC

Medical knowledge is said to double every 5 to 15 years. Whatever the exact number, all of us have seen major changes to diagnosis and therapeutic modalities during our career, usually including learning that something we have in good faith been doing for our patients has now been shown to be harmful. How then, to design a medical curriculum, knowing that the ability to learn lifelong may well be more important that any particular fact that is taught? This is one of the challenges that the Educational Design Group of the Faculty of Medicine had to face. Department of Medicine members featured prominently in this group, from Dean Eidelman (then Chair of our Department), Dr. Beth Cummings, Dr. Mark Blostein, Dr. Colin Chalk, Dr. Donald Boudreau, Dr. Peter McLeod, Dr. Linda Snell, Dr. Meredith Young, Dr. Leora Birnbaum and myself. The new MDCM curriculum which will begin in August 2013 addresses this in a number of different ways.

The first is that all students will have to complete an independent research project. The ability to formulate a scientific question and then design a method to answer it is a key skill if we expect our graduates to push forward the boundaries of medical knowledge. The second is that critical appraisal skills will be given a new emphasis, and required to be demonstrated during clinical rotations – only with these abilities will practitioners be able to intelligently consume the increasing number of clinical studies being published. Students will be required not only to be familiar with electronic ways of staying up to date; they will have to outline the system they plan to use after graduation to do so.

In addition to these “process skills”, there are essential scientific facts that need to be clearly understood – future learning and innovations will need to build on these. Which are these facts? Leading the Fundamentals of Medicine and Dentistry (FMD) portion of the curriculum, Dr. Colin Chalk has been answering this question in a systematic way. Beginning with the approximately 100 clinical presentations outlined by the Medical Council of Canada, he and his team have been asking the question “What basic science facts are essential in order for a practitioner to address this particular clinical presentation?” For e.g., if the presentation is dyspnea, the anatomy of the heart and lungs, the physiology of blood and blood circulation, the mechanics of the lung, and the physiology of gas exchange would all be fundamental to a scientific

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approach to this clinical presentation. If the presentation is “breast mass”, not only would lymph drainage patterns of the breast be important, but an understanding of cancer biology, and genetics would also be needed. This process of linking the basic science to the clinical presentations has not only given a rationale for selecting the science to emphasize to the students, we believe it will highlight to the students the relevance of what they are learning in the first 18 months.

No doubt there will be “glitches” – we will not always be accurate with our predictions as to what is essential for future learning and practice, and updating regularly will be necessary. But it remains an exciting project to define clearly why we teach what we do. We owe a huge thanks to all those who have and continue to work so hard to see this to fruition.

MUHC PUMP EDUCATION CENTER & TRANSITION CLINIC

Dr. Mark Sherman, Associate Professor and Interim Director, Division of Endocrinology and Metabolism

Insulin Pumps and continuous glucose monitoring (CGM) are the state of the art in the management of persons with type 1 diabetes and for some with type 2 diabetes, as well. By using these technologies, individuals with diabetes are more able to know and react to their blood glucose levels on a moment-to-moment basis, and adjust their insulin more suitably to immediate needs, more closely mimicking their natural physiology. There is evidence in the literature that CGM and the insulin pump improve measurable outcomes, and they also allow the freedom to lead a more active lifestyle with less worry about extreme fluctuations in blood sugars – a constant concern with injected insulin. Insulin pumps are being used more and more in Pediatric Diabetes – the government pays for this, and will continue to support the pump in those who began to use the pump below age 18. As mentioned in the March 2013 newsletter, the Jewish General Hospital has just opened their pump centre, and the Montreal Children’s Hospital has a pump centre for those less than 18 years old. For the last two years, we at the adult sites of the MUHC have been fortunate to have a Pump Education Centre, and to have engaged the services of Gilda Bastasi, PDt, who has been working at the MGH site as a Dietician and diabetes educator for 32 years. She has become a certified pump educator and is now our Pump Trainer. She shows our patients the various options and instructs them on their use. She maintains contact with the patients and acts as a liaison with the doctor to make necessary adjustments, arrange follow-up and maintain continuity of care. She also helps with patients already on the pump to troubleshoot their problems.

Also in our division, Dr. Natasha Garfield has created a Transition Clinic, for young people with diabetes graduating from care at the Montreal Children’s Hospital to our adult sites. It is a daunting experience for an 18 year old to suddenly have to leave their healthcare team and comfort zone at the Montreal Children’s Hospital and enter the “new world” of adult care, see a new doctor, new educators and sit in a waiting room with older people, often with visible complications of diabetes. A lot of the young adults never keep their first adult appointment, or they stop coming after a brief interval. The clinic is based at the Montreal General Hospital site and includes the support of dieticians, nurse educators, a social worker from the MCH and a psychologist, as well as MDs from the RVH, MGH and the JGH. The objective is to transition these young people to adult care, ensure continuity within the McGill adult hospitals or to outside resources, and to identify and focus resources on persons at risk of poor outcomes or non-compliance.

Both of these initiatives are supported by fundraising within the Division of Endocrinology and Metabolism, as well as support from industry. We look forward to growing these programs into permanent fixtures at the MUHC.
The Department of Medicine Research Symposium was held May 24th at the Faculty Club. Attended by a small but interested group the afternoon showcased some of the excellent work being done by departmental researchers. Two keynote speakers, Drs. Gerry Batist and Mark Lathrop presented fascinating talks covering advances in cancer genotyping and personalized or perhaps more aptly termed precision medicine, and the applications of genetics and genomics to the investigation of disease. Dr. Nitika Pant Pai presented her work on point of care testing in HIV, including the development of an iPhone based application to assist the self-testing process. Dr. Brent Richards presented his work on the contributions of genomics to the understanding of bone disease. Dr. Jennifer Landry detailed her work on the lung disease of prematurity and the cohort she has built to better understand the long term consequences of prematurity and lung disease on health. Dr. Jonathan Afilalo taught us how frailty could be assessed and its prognostic significance in cardiovascular disease. Dr. Stephen Grover covered the history of the McGill Comprehensive Health Improvement Program (CHIP) and current developments in eHealth. Dr. Stephane Laporte recounted his work on the allosteric regulation of prostanoid receptors and the development of new drugs to inhibit premature labour. Dr. Marie Hudson described her work on the association of ACE inhibitors with the development of scleroderma renal crises. Dr. Joyce Rauch told us of her ground-breaking work in anti-cardiolipin syndrome and thrombosis. Congratulations to Dr. Ernesto Schiffrin for the excellent organization and for the program which was an excellent balance of scientific approaches to medicine, and our thanks to Ms. Domenica Cami for her invaluable assistance.
PROMOTIONS & AWARDING OF TENURE

Congratulations to our Faculty members for their achievements!

ASSOCIATE PROFESSORS WITH TENURE

Dr. Stella Daskalopoulou is in the Division of General Internal Medicine and is well known for her work on cardiovascular health and blood vessel mechanical properties.

Dr. Monzur Murshed is at the McGill Center for Bone and Periodontal Research and his laboratory primarily focuses on the genetic regulation of tissue mineralization.

Dr. Elena Torban is in the Nephrology Division and her lab is interested in elucidating the role of the novel planar cell polarity (PCP) pathway in mammalian development and human disease.

FULL PROFESSORS

Dr. Anne Gatignol is a virologist whose laboratory is based at the JGH and the Lady Davis Institute. She is particularly well known for her work on the human immunodeficiency virus and on host factors that influence viral replication.

Dr. Ariane Marelli is a cardiologist whose work on adult congenital heart disease has established her as an internationally known expert in this area.

Dr. Denis Sasseville is a dermatologist who has made substantial contributions in the area of contact dermatitis and has earned an international reputation in this area.

SALARY AWARDS

CIHR Clinician Scientist – Phase 2 (Renewal)
- Dr. Vidal Essebag

FRQS Chercheur Boursier – Senior
- Dr. Maya Saleh
- Dr. Russell Hepple

FRQS Chercheur Boursier Clinicien – Junior 1
- Dr. Giada Sebastiani
- Dr. Michael Sebag

FRQS Chercheur Boursier Clinicien – Junior 2
- Dr. Stella Daskalopoulou
- Dr. Brent Richards

FRQS Chercheur Boursier National
- Dr. Nandini Dendukuri

FRQS Chercheur National
- Dr. Marina Klein

CFI - LEADERS OPPORTUNITY FUND

Congratulations to Dr. Maziar Divangahi, Assistant Professor based at the Meakins-Christie Laboratories, for his successful CFI-LOF application for the project titled « Immunity to pulmonary intracellular pathogens ».
MUHC  Departmental Annual Dinner held Thursday, June 6, 2013.

**Physician-in-Chief Award**
For highly distinguished service to the MUHC Department
◆ Mr. Gary Stoopler

**Department of Medicine Physicianship Award**
Exemplary Physician
◆ Dr. Wendy Chiu

**Outreach Award**
Attending Staff, Teams or Residents who enhance links between the MUHC and the community
◆ MUHC Tuberculosis Clinics (MCI & MCH)

**Department of Medicine Award**
For Innovation in Clinical Care or Quality
◆ Dr. Paul Barré

**Department of Medicine Award**
For Research by a Subspecialty Resident
◆ Dr. Chris Walsh

**Department of Medicine Staff Research Award**
◆ Dr. Ernest Seidman

**The Louis G. Johnson Award**
For excellence in Teaching by a Medical Resident
◆ Dr. Bilal Asif

**The Lorne E. Cassidy Teaching Award**
For Excellence in Teaching by a Medical Resident
◆ Dr. Andrea Blotsky

**The Douglas G. Kinnear Award**
Outstanding Clinician-Teacher at the MUHC
◆ Dr. Dev Jayaraman

**The W.H. Philip Hill Award**
Outstanding Clinician-Teacher at the MUHC
◆ Dr. Thomas Maniatis

JEWISH GENERAL HOSPITAL  Department of Medicine Staff and Residents Year-End Party held Thursday, May 30, 2013.

**Dave Feder Award**
Resident who practices medicine with most compassion and sensitivity
◆ Dr. Yen-Il Chen

**Sheldon Zemelman Memorial Award**
For academic excellence and outstanding contribution to patient care
◆ Dr. Kevin Chan

**Dr. Allen Spanier Internal Medicine Award**
Resident who exhibits an enduring passion for the practice of medicine.
◆ Dr. Tanya Skamene

**Medical Resident Research Award**
◆ Dr. Mark Davis

**Teacher of the Year** voted by the residents
◆ Dr. Joseph Raffoul

ST. MARY'S  Family Medicine Annual Physicians’ dinner held Wednesday, June 12, 2013.

**Physician-in-Chief Award**
Family Medicine Resident (R2) who demonstrates excellence in Internal Medicine
◆ Dr. Lars Grant

**Mervyn James Robson Memorial Award**
For Excellence in Internal Medicine during first year of residency
◆ Dr. Marie-Hélène Dupuis-Vaillancourt

ST. MARY'S  Family Medicine Annual Physicians’ dinner held Wednesday, June 12, 2013.

**Physician-in-Chief Award**
Family Medicine Resident (R2) who demonstrates excellence in Internal Medicine
◆ Dr. Lars Grant

**Mervyn James Robson Memorial Award**
For Excellence in Internal Medicine during first year of residency
◆ Dr. Marie-Hélène Dupuis-Vaillancourt

**Department of Medicine Award**
For Research by a Core Internal Medicine Resident
◆ Dr. Janeve Everett

**The Harold Frank Prize**
For Excellence in a Clinical Case Presentation (Clinical Vignettes)
◆ Dr. Emilie Trinh

**The Ezra Lozinsky Prize**
◆ Dr. Sara El Ouali

MCGILL RESIDENCY TRAINING PROGRAM AWARDS

**Department of Medicine Award**
For Research by a Core Internal Medicine Resident
◆ Dr. Janeve Everett

**The Harold Frank Prize**
For Excellence in a Clinical Case Presentation (Clinical Vignettes)
◆ Dr. Emilie Trinh

**The Ezra Lozinsky Prize**
◆ Dr. Sara El Ouali
We are pleased to announce the following appointments in the JGH Department of Medicine. We wish our members great success in their new roles and extend our heartfelt thanks to their predecessors.

**Dr. Andrew Hirsch** has taken on the position of Chief of the Pulmonary Division at the JGH effective April 15, 2013. He succeeds **Dr. David Small**. Dr. Hirsch is Associate Professor and has clinical and research interests in pulmonary vascular diseases. He is a member of the JGH’s Thrombosis Service where his research includes CIHR funded protocols on the diagnosis and treatment of acute pulmonary embolism. He is an active member and contributor to the JGH Pulmonary Vascular Centre.

**Dr. Andre Dascal**, Associate Professor, has been appointed Chief of the Infectious Diseases at the JGH effective April 15, 2013. He succeeds **Dr. Mark Miller**. Dr. Dascal’s current research interests are on *C. difficile*, diagnostic molecular microbiology and preparedness for natural or criminally introduced infectious disease outbreaks. During his career he has received research funding from NIH, CIHR, FRSQ, and NSERC and has authored or co-authored numerous publications. In addition to his teaching and research he has previously served as President of the Council of Physicians Dentists and Pharmacists as well as Associate Medical Director at the JGH.

**Dr. Lawrence Rudski** has taken on the position of Chief of the Cardiology Division at the JGH effective March 21, 2013. He succeeds **Dr. David Langleben**. Dr. Rudski is Associate Professor and has been on staff at McGill since 1999. He is nationally and internationally recognized as a leader in echocardiography, with a focus on the echocardiographic assessment of the right heart. He has chaired an international guidelines document in this area, and serves on the Board of Directors of both the Canadian and American Societies of Echocardiography.

**UPCOMING CHANGE**

**EXPERIMENTAL MEDICINE DIVISION**

This fall, **Dr. Hugh Bennett** will finish his second term as Director of the Division of Experimental Medicine, perhaps the largest graduate program in the University. During his term Dr. Bennett worked tirelessly to promote the graduate program, expanding it and refining it. He performed his functions with balance, ambition and integrity. He was and is a strong and effective advocate of students. In addition, he held the position of Director of the Sheldon Biotechnology Center, the core facility for biomedical scientists at McGill University, from 1992 until June 2012; he also held the Canadian Pacific Chair in Biotechnology from 2004 to 2009. The Department is indebted to him for his many contributions. A search is underway for a replacement.
RECRUITMENT

We welcome the following members to our Department.

Dr. Annabel Chen-Tournoux, Assistant Professor to the Division of Cardiology at the Jewish General Hospital. Dr. Chen-Tournoux obtained her MD at Harvard University and pursued Internal Medicine and Cardiology residencies, followed by a Fellowship in Echocardiography at the Massachusetts General Hospital. D. Chen-Tournoux worked for three years in Paris as a Senior Program Officer for the Leducq Foundation, a private endowment-based foundations supporting research and the development of new technology in cardiac and neurovascular sciences. She continues to work with the Foundation as a Consultant. Dr. Chen-Tournoux is an expert in echocardiography and in particular strain based imaging, as well as in cardiometabolic diseases. In addition to her active work in the JGH echocardiography laboratory, she is helping establish a strong cardiology presence in the JGH's Cardiovascular Prevention Center.

Dr. Jonathan Cooperman, Assistant Professor in Emergency Medicine, and based at the Jewish General Hospital. A native Montrealer, Dr. Cooperman returned home after a 10-year hiatus. He completed his M.D. and clinical internship at Technion-Israel Institute of Technology and holds a Masters degree in medical ethics from Case Western Reserve University in Cleveland, Ohio. Prior to completing an Emergency Medicine residency at McGill University, Dr. Cooperman graduated from the Emergency Medicine residency program at Emory University in Atlanta, Georgia. His areas of interest include emergency department ultrasound, sports medicine, trauma care, and clinical ethics.

Dr. Jed Lipes, Assistant Professor to the Divisions of Critical Care and General Internal Medicine at the Jewish General Hospital. Dr. Lipes obtained dual specialty training in both general internal medicine and critical care medicine at McGill University. He completed additional subspecialty training in cardiovascular critical care at the Institut universitaire de cardiologie et de pneumologie de Québec as well as a fellowship in echocardiography at the JGH. His research interests include the use of bedside ultrasound and echocardiography in acute care medicine. He has been named Director of bedside ultrasound training for the internal medicine and the critical care training programs at McGill.

Dr. Catherine Weber, Assistant Professor to the Division of Nephrology. Dr. Weber is a graduate of the medical school at the University of Manitoba, and carried out Nephrology training at the University of British Columbia. She then completed a Clinical Investigator Program, and holds a Master of Health Science degree from the University of British Columbia. She had undertaken research training in bioimpedance spectroscopy. At the MUHC, Dr. Weber's clinical duties will be in general nephrology and hemodialysis, primarily at the MGH site, and will be involved in teaching activities as well.
HONOURS

Congratulations to our following members for their achievements.

Dr. Alan Barkun, Professor in the Division of Gastroenterology, recipient of the Douglas G. Kinneal Chair at McGill and Chief Quality Officer, Division of Gastroenterology, McGill and MUHC, was recently awarded one of only two American Society for Gastrointestinal Endoscopy Research Grants given world-wide during a ceremony held at the 2013 Digestive Disease Week in Orlando, Florida. The grant received will allow Dr. Barkun’s research group, which includes Dr. Yen-I Chen, a McGill Internal Medicine resident, to pilot a randomized clinical trial aimed at establishing whether or not the hemostatic powders are indeed efficacious in patients with malignant gastrointestinal bleeding, and if so, what the optimal patient characteristics and management approaches are. It is anticipated that this funded pilot trial will lead to a larger multinational trial to definitively address this important management issue.

Dr. Joe Dylewski, Associate Professor and Director of the Division of Infectious Diseases at St. Mary’s, received the Annual Hingston Memorial Award. Presented by the St. Mary’s Hospital Council of Physicians, Dentists and Pharmacists, this award honours St. Mary’s physicians for their years of contribution and dedication to education, patient care and hospital life.

Dr. Leon Glass, Professor in the Departments of Medicine and Physiology and recipient of the Isadore Rosenfeld Chair in Cardiology, received the 2013 Arthur T. Winfree prize from by The Society for Mathematical Biology. Awarded every two years to a scientist whose work has "led to significant new biological understanding affecting observation/ experiments," this prize commemorates the creativity, imagination and intellectual breadth of Arthur T. Winfree. More information on this story.

On June 13, 2013, Dr. Madhukar Pai, Associate Member in our Respiratory and Infectious Diseases Divisions, Associate Professor in the Department of Epidemiology and Biostatistics and Associate Director of the McGill International TB Center, was presented with the Faculty of Medicine Honour for Educational Excellence in recognition of his outstanding contributions to graduate teaching and his innovative teaching methods.

Dr. Nitika Pant Pai, Assistant Professor in our Clinical Epidemiology and Infectious Diseases Divisions, has been selected as the laureate of the 2013 Maude Abbott Prize. This honour was established in 2010 by the Faculty in order to recognize outstanding Faculty members who excel in education, research or administration with a focus on those at the early stages of their careers.

The American Society of Hypertension (ASH) honored Dr. Ernesto Schiffrin, one of its original members, by naming him the 2013 ASH Distinguished Scientist and conferring him the Robert Tigerstedt Award during the ASH Awards Plenary Session on May 17, 2013 in San Francisco, CA. The Tigerstedt Award, named for the physiologist and scientist best known for discovering the renin-angiotensin system, was fittingly presented to Dr. Schiffrin, who has focused much of his more than 35-year research career on the renin-angiotensin-aldosterone system, for his outstanding achievements in the field of hypertension and his contribution to both endocrinology and circulation. As part of the award, Dr. Schiffrin, Physician-in-Chief at the JGH, Professor and Vice-Chair of Research in our Department, presented his work in recent years involving the renin-angiotensin-aldosterone system and related mechanisms involved in blood pressure elevation. In this lecture, he presented new data, from both humans and experimental models, about mechanisms involved in the remodeling of vasculature.

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On June 13, 2013, Dr. Vicky Tagalakis, Associate Professor in the Division of General Internal Medicine, was presented with the Faculty of Medicine Honour for Educational Excellence, a well-deserved recognition for her teaching contributions to the JGH and McGill, especially in her quality as Director of the McGill University General Internal Medicine R4 and R5 Residency Training Program since 2003.

Dr. Mark Wainberg, Professor in the Division of Allergy and Immunology and Director of the McGill AIDS Center at the LDI-JGH, has been honoured by the CIHR and the CMAJ as one of five recipients of the CIHR-CMAJ Top Canadian Achievements in Health Research Awards, for his ground-breaking research on antiviral drug resistance and his work leading to the discovery of Lamivudine (3TC), which is one the world’s most widely used drugs in the treatment of HIV.

Congratulations to the following members of our Department who have been awarded the Queen Elizabeth II Diamond Jubilee Medal.

Dr. Margaret Becklake, Professor Emerita, respiratory physician and clinical epidemiologist based at the Montreal Chest Institute. Dr. Becklake is internationally recognized for her research on the occupational and environmental determinants of lung disease for more than 55 years.

Dr. John Bergeron, Professor in the Division of Endocrinology and Metabolism, is well known to the McGill community, having served as Chair of the Department of Anatomy and Cell Biology from 1996 until 2009. His scientific interests are focused on proteomics and the emerging field of systems medicine.

Dr. Thomas (TMS) Chang is Professor Emeritus, Director of the McGill Artificial Cells and Organs Research Center (www.artcell.mcgill.ca) and inventor of the artificial cells (Chang, Science, 1964).

Dr. Robert Côté, Professor in our Department and in the Department of Neurology and Neurosurgery, is an internationally recognized clinician scientist who has been a leader in the field of stroke research in Canada and around the world.

Dr. Emil Skamene, Professor in the Division of Allergy and Clinical Immunology, is the Founding Director of the Research Institute of the MUHC. He also founded The McGill Centre for the Study of Host Resistance. His major scientific contribution has been the identification of genes controlling susceptibility to infectious diseases, such as tuberculosis, leprosy and malaria.

Dr. Chris Tsoukas, Professor and Director of the Allergy and Clinical Immunology Division, is a pioneer in AIDS research. He has conducted over 150 clinical trials on antiviral agents and therapeutic vaccines. Over the past decade he established a referral center for the diagnosis and management of adults with primary immune deficiency, and his current interests include the evaluation of immune competence in adults undergoing biologic therapies, autoinflammation, and cardiovascular immunopathology as it relates to human immune aging.

The Department of Medicine’s number of successes is prolific. Although every attempt is made to acknowledge them all at the time we go “to press”, some announcements may be delayed. Do not hesitate to contact us to let us know of your successes.
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