

**Annual Report Division of Cardiology**  
**Department of Medicine - Jewish General Hospital**  
**January 1 - December 31, 2017**

**SUMMARY**

**Introduction**

The JGH Division of Cardiology had a very productive year in the areas of clinical care, teaching and research. Our Division underwent a transformational change, becoming the Azrieli Heart Center, following the largest donation given to the JGH by a single donor. This gift allowed us to continue in our mission to transform cardiovascular care delivery through a patient-centered and integrated care delivery model. In addition, funds have been allocated to endowed fellowships, integration with the community, research and IT advances. *Dr. Michael Goldfarb* was recruited after completing a Fellowship in Cardiac Intensive Care and will be leading our Quality and Outcomes program. *Dr. Abualsaud*, trained in structural cardiology and congenital heart diseases was recruited to serve as a liaison with the MUHC in these fields. *Dr. Afilalo and Dr. Eisenberg* received CIHR funding. *Drs. Rudski, Afilalo, Sebag, Eisenberg and Langleben* were active organizing, chairing and directing major local, national and international conferences and courses in the fields of cardiovascular imaging, pulmonary hypertension, cardiovascular trials and epidemiology, as well as frailty.

**Innovation in Clinical Services**

Novel Clinical Initiatives

2017 continued our major transformation in delivery of clinical care at the JGH, with the merger of the Division of Cardiology together with the Division of Cardiac Surgery. In this international first, each clinical teaching unit is comprised of both surgical and medical patients, and is staffed by physicians, surgeons and advanced nursing resources. With this patient centered care delivery model, continuity of care is ensured during all phases of the patient's hospitalization, and all the necessary expertise is provided on a daily basis through a comprehensive heart team approach. Post-discharge care is similarly improved through this multi-disciplinary approach. The Department of Nursing was a key component in the development of this model, and we worked side by side with them. All nurses are cross-trained on the wards and we began a cath-lab/CVICU cross training program as well. This innovative project as well as additional measures have resulted in excellent numbers in our "door to balloon time", a quality marker for acute myocardial infarction. The integrated model and heart team approach led to the performance of the first single-setting hybrid coronary revascularization, combining robotically assisted bypass surgery with coronary angioplasty in Quebec.

The key threat to clinical activities is a diminishing budget to meet the current volumes of activity, and even more so, to keep up with the rapid advances in cardiology - a field that is highly dependent on technology. The JGH has not been able to implement a TAVR program due to budgetary constraints. In addition, cath lab procedures are restrained by budget. Finally, several cardiac intensive care unit beds are not funded. As noted above, the clinical needs exceed the number of PEMs available and the inability to recruit FTEs and associate members puts additional strain on our ability to provide the care that our patients deserve.

**Geriatric Cardiology:** Provides frailty assessment consultation service for patients referred by cardiologists and surgeons. Dr. Afilalo founded the McGill Geriatric Cardiology Fellowship Program, the first of its kind in Canada.

Center for Pulmonary Vascular Diseases: Under the leadership of Dr. David Langleben, our internationally recognized Center continued to perform cutting edge research as well as introduction of state-of-art therapies. We remain the sole site for surgical pulmonary thromboendartectomy in Quebec and one of 3 in Canada.

**Cardio-Oncology:** The Jewish General Hospital's Cardio-Oncology Program has continued to grow. The clinic has successfully been integrated into the physical space of our Heart Failure Clinic which allows for better access to multidisciplinary care for our patients. We are increasingly recognized as colleagues in the multidisciplinary approach to cancer patients, by our Oncology colleagues.

**Pericardial Diseases Program:** In 2017, Dr. Mardigyan continued with his program of novel molecules to treat complex and recurrent pericarditis, developing the largest single-site experience with one of the pharmaceutical agents internationally, and began collaboration with international consortia.

**Heart Failure Palliative Care Program:** The Cardiac Palliative Care Service formalized its association with the Division of Palliative at the JGH and now has a dedicated Palliative Care Nurse. Supportive Care Clinics and a multidisciplinary approach aim to provide optimum care to patients and their families. The HF Palliative Care Service has presented its research at international conferences.

**Cardiac Catheterization and Percutaneous Coronary Intervention:** The JGH cath lab continues to be a leader in the treatment of patients with chronic occlusions with expertise in clinical and research arenas. New technology was acquired to make emergency procedures safer. We continue our relationship with the MUHC in the fields of TAVR (Trancutaneous aortic valve replacement) and Chronic Total Occlusion techniques.

**Echocardiography at the JGH:** The Echolab continued in its role as a leading clinical, teaching and academic lab. Its leaders led and participated in numerous international conferences. It also led a highly successful fellowship program, both as a stand-alone fellowship, as well as integrated with cardiac MRI.

## **1. Research and publications:**

Research focused on a number of domains focusing on the evolving field of frailty (Dr. Jonathan Afilalo), Smoking cessation (Dr. Mark Eisenberg), Pulmonary Hypertension (Dr. David Langleben), Heart Failure (Dr. Richard Sheppard), Congenital Heart Disease (Dr. Therrien), Health Economics (Dr. Goldfarb) and Cardiac Imaging (Drs. Rudski, Sebag, Afilalo) among others.

## **2. Teaching and learning (undergraduate and graduate):**

### Major Achievements in Pedagogy

The JGH continued training its first Fellow into a unique program in Canada, combining Echocardiography and Cardiac Magnetic Resonance imaging into a two year complementary and simultaneous training Fellowship. Dr. Mark Eisenberg continued in his post as director of the MD-PhD program at McGill, mentoring 16 students. Dr. Chen-Tournoux continued in her role as Co-Program Director- Adult Cardiology. Dr. Regina Husa was appointed into the newly created position of Assistant Dean, Accreditation. Dr. Therrien was promoted to Full Professor.

### **Ali Omar Abualsaud, MD**

- Undergraduate: 7 hours
- EKGI, EKGII, Approach to Chest Pain, Physical Examination (4 hours)
- Postgraduate: Academic half days - 4; McGill Cardiovascular Research Day - 1
- Divisional Rounds - 33 hours; other Rounds - 34 hours
- Teaching: 40% teaching undergraduate and postgraduate students
- Ward / Inpatient: 5 weeks per year
- Consult Service: 4 weeks per year
- Outpatient / Clinic: 2 three half days a week
- Procedures: 1.5 day a week - Cath lab

### **Annabel Chen-Tournoux, MD**

#### Undergraduate:

- EKG II: 1 hour; Arrhythmias and ECGs medical student half-day, 2 hours; Cardiovascular physical exam: 1.5 hours

#### Postgraduate:

- Ward / Inpatient: 6 weeks per year
- Consult service: 4 weeks per year
- JGH Echo lab, stress test: 3-4 half days
- Revision and organization of academic half-day curriculum for cardiology residents
- Echo Boot Camp, 1 hour
- ECG Boot Camp, 1 hour
- Co-Director, Cardiology Residency Program
- Teaching director, JGH Cardiology consults & CVIPU rotations

#### Other

- CCU rounds (students, residents, fellows) 10 Hours
- OPD clinics (residents, fellows, students) 3 half days/week
- Ward/inpatient: 4 weeks per year
- McGill postgraduate: member Internal Medicine Residency Program Committee
- CARMS interviews for Internal Medicine residency program
- Examiner, Cardiology Trainee Review Course, Canadian Cardiovascular Society Academy, Toronto 2017, 1 day
- ECGs, McGill Thursday Evening Learning Series, Montreal, January 19, 2017 (1 hour)
- Ischemic heart disease in women (plenary), 68th McGill Annual Refresher Course for Family Physicians, November 27, 2017
- Appropriate cardiac testing for the workup of chest pain workshop, 66th McGill Annual Refresher Course for Family Physicians, November 27, 2017 (1 hour)

#### Continuing professional development:

- Moving up the academic ladder: everything you wanted to know about promotions, January 31, 2017 (3.5 hours)
- CBD Workshop Royal College, 3 days, 2017
- CARE (Connection, Awareness, Relationship, Engagement) workshop MUHC, May26, 2017 (4 hours)
- Royal College Simulation Summit, November 1-2, 2017
- Simulation Educator Training Supplement: Principles of Assessment, November 3, 2017 (7 hours)
- Introducing simulation in your curriculum: from principles to practice, November 23, 2017 (7 hours)
- Attendance at Divisional Rounds: 49

## **Mark J. Eisenberg, MD MPH FACC FAHA**

Undergraduate & Postgraduate:

- Director, McGill MD-PhD Program
- Teaching 3 credit biweekly McGill MD-PhD Seminar Series (>20 hours)
- Annual meetings with each of the MD-PhD students
- ECG 1 teaching for Internal Medicine
- McGill Medical Student Bursary Program: supervised 2 students for 8-week research electives
- 4 weeks / year in CVICU rounds (5.5 hours / day, 5 days a week)
- Ward / inpatient: 4 weeks;
- Consult service: 2 days a month
- Outpatient clinic: ½ day a week
- Cath lab: 1 day a week; 1 in 4 calls for the Cath lab
- Attendance at Medical, Divisional & other Rounds: 50 hours
- Weekly discussions with referring physicians & students who refer patients to the Cath lab
- Cardiac Catheterization Laboratories (>160 hours/year) - Cardiology Fellows
- Created Syllabus/Teaching File for cardiology fellows rotating through the Cath lab
- Consultations (>120 hours/year) - Cardiology Fellows, Residents, Medical Students
- Interventional cardiology cases and discussion for Cardiology Fellows
- Nuclear and Treadmill (General Internal Medicine fellows)
- "Letter to the Editor" Workshop for McGill Cardiology Fellows
- Member of CIHR College of Reviewers
- Internal grant reviews for fellow LDI researchers
- Organize 3 CME events/yr. for cardiology fellows and McGill cardiology community (ESC/AHA/ACC highlights)

## **Regina Husa, MD**

- Medical Class Lecture & Workshops: 7 hours
- Academic half days: 10 hours
- McGill administrators: 3 hours
- Program Directors: 6 hours
- Cardiology Resident research project supervisor
- Attendance at Divisional Rounds: 35 sessions
- Attendance: other rounds: ICRE 5 days
- Workshop on teaching clinicians how to model positive behaviour in clinical teams
- 6 weeks CCU/year
- Consult service: 6 weeks
- Outpatient clinics/week: 3 half days / week
- TEE stress echo: 1 day per month
- Royal College Surveyor (National) preparing new national Accreditation Standards including other Canadian Universities to pilot new Accreditation formats.
- Cardiology Division Practice Plan Committee, JGH
- McGill Internal Review Accreditation Committee
- PGME Executive Committee
- FPGEC Committee
- PEEC Committee; Can MEDS Roles
- Cardiology Residency Training Program Promotions Committee
- Science Fair Judge, St. George's High School

### **Joyal, Dominique, MD**

- Undergraduate: Teaching medical students on consult service
  - Dedicated teaching time on ward/CCU
  - Cardiovascular physical exam small group
- Postgraduate: Teaching residents on consult service
  - Teaching and supervising residents in cath lab
  - Dedicated teaching time on ward/CCU
- CCU: 4 weeks per year
- Consult service: 4-6 weeks per year
- Outpatient / Clinic: 4 half days per week
- Cath lab: 2 days per week
- Attendance at Divisional Rounds: 40 sessions
- Clinical Innovation: Novel techniques and equipment in interventional cardiology
- Reviewer for national and international cardiology journals
- Research supervisor to cardiology resident
- Presentation at cardiology conferences
- Cath lab representative on provincial committees
- Member of the event committee of an international randomized control trial
- Ethic submission of a randomized control trial in the out-patient setting

### **Langleben, David**

- Teaching on wards and CCU 7-8 weeks/year
- Postgraduate: Teaching in PH clinic: 20 hours/year (students, residents, fellow & postgrad program)
- CVICU & CVU: 100 hours per year
- Helping cardio fellows write papers: 20-30 hours per year
- Clinical Supervision: Consult service 1 week/year; OPD clinic 9-10 half days per week
- Member, P&T Committee, JGH
- Chair, JGH Medical Records Committee

### **Vartan Mardigyan, MD**

- Postgraduate: 10 hours didactic teaching to cardiology fellows
- Clinical Supervision: Procedures, bedside teaching, etc.: 40 hours; cardiology resident: 10 hours
- Internal Medicine residents: 10 hours
- Ward / inpatient: 4 weeks per year
- Outpatient / Clinic: 8 half days per week
- Procedures: 250 pacemaker implants; 35 pericardiocentesis with drain placement
- RUIS / Outreach: 3 hours
- Divisional and other Rounds: 50 hours
- Participating in European pericardial diseases registry

### **Caroline Michel, MD**

- Undergraduate: 1 lecture annually on Cardiac Palliative Care; 1 on physical exam; 2 hours annually on ECG interpretation
- Postgraduate: 1 lecture annually to Family Med Residents on Heart Failure; 1 lecture annually to Palliative Care residents on end stage heart failure; 10 hours in the Heart Failure Clinic
- Teaching: CCU & Consult Service - 180 hours; echo lab - 96 hours; teaching residents in HF clinic - 10 hours
- Medical students research project & Resident project - 50 hours per year
- Medicine and Simulation Centre 50-60 hours

- Clinical Supervision: Consults 160 hours, CCU, 320 hours, Echo Lab 500 hours; Heart Failure Clinic 20 hours
- Ward / inpatient: 8 weeks per year
- Consult service: 4 weeks per year
- Outpatient / Clinic: 3 half days per week
- Procedures: Echos: 1200 per year
- Administrative Director of the Division of Cardiology at JGH
- Rounds (Medical Grand Rounds, Divisional Rounds & Other): 55 hours

### **Lawrence Rudski, MD**

- Mentored residents in writing book chapters in an echocardiography text book
- Grew a number of programs including cath, echocardiography, MRI and robotic surgery as well as clinical research, during a climate of contraction
- Director for regional meeting & Canadian Society of Echocardiography annual echo weekend
- Undergraduate: 4. 5 hours - Expert physician rounds; small group physical exam sessions
- Ward / Inpatient: 8 weeks CVICU / CVU
- Consult Service: 4-5 weeks
- Outpatient / Clinic: ½ to 1 day per week
- Procedures: 2.5 days per week echo
- Developed integrated cardiovascular unit
- Divisional Director: 750 hours / year
- Director, Integrated Cardiovascular Sciences Program
- Member - Table des Chefs - 10 hours
- President - Canadian Society of Echocardiography - 100 hours
- Governor - American College of Cardiology
- Co-Director - JGH/McGill Annual Imaging Conference
- Expert Reviewer (2 guidelines documents) - Board of Governors - American College of Cardiology
- Editorial Board - Journal of the American Society of Echocardiography
- Reviewer - JASE, Circulation, JACC, JACC Imaging, Eur H J -CV Imaging, Circ Imaing, Can J Cardiol
- Member of the Executive - RQCT - Réseau Québécois de Cardiologie Tertiaire
- Rounds (Divisional, Medical Grand Rounds, other Rounds / conférences: 72 hours
- Ongoing mentorship of several faculty members
- Member - Royal College of Physicians & Surgeons of Canada - AFC Committee for Echo
- Presentations / speaker: Canadian Society of Echocardiography Annual Echo Weekend; Canadian Cardiovascular Congress, ASE Board Review Course; ASE Echo Hawaii; ASE Annual Scientific Sessions; European Association of Cardiovascular Imaging - Lisbon

### **Igal Sebag, MD**

- Undergraduate: Intro to Cardiovascular Pathophysiology, The cardiovascular physical examination: Theory - 2 hours
- Postgraduate: 13 hours
- McGill cardiology Academic Teaching, lecture (10 fellows): 3 hours
- Advanced Training in Echocardiography (Fellowship and Teaching Director in Echocardiography)
- 2 National/International Echocardiography Fellows
- Clinical Teaching
- Echocardiography Laboratory (150 hours/year) - Echocardiography Fellows and Core Cardiology Fellows

- Coronary Care Unit and Consultation Service (>150 hours/year) - Medical students, Residents and Cardiology Fellows
- McGill Representative on the Scientific Program Committee of the Quebec Cardiologists' Association (2 conferences/year) 10 meeting hours/year
- Program Committee Member for the Annual Meeting of the Canadian Society of Echocardiography (and member of the Board of Directors of the Canadian Society of Echocardiography), Contribution to designing the scientific content of this Canadian-wide meeting (700 attendees from across the country)
- National/International Echocardiography Fellows: 1
- Co-director of the Eight Annual Symposium on Cardiovascular Imaging
- CCU & CTU: 8 weeks per year
- Consult Service 4 weeks per year
- Outpatient clinic: 1-2 half days per week
- Procedures 6-7 half days a month; Interventional echo: 1-2 days a month; specialized 3-D echo: 3-4 studies per day
- Coordinate & design Quality Assurance quarterly rounds; Interventional echocardiography: 1 day / month - MUHC Glen site
- Director - Echocardiography and Non-Invasive Cardiology: 3 hours a week
- Fellowship/Teaching Director in Echocardiography: 1-2 hours a week
- Member of the core McGill Cardiology training program committee
- Member of the Board of Directors, Canadian Society of Echocardiography
- Rounds (Grand Medical and Divisional): 57 hours; other rounds: 1 in Germany, 1 in Montreal, 1 in Toronto

### **Richard Sheppard, MD**

- Small group sessions with medical students, residents and cardiology subspecialty residents
- Participation in academic half day for internal medicine and cardiology programs
- Ward / Inpatient: CCU - 10 weeks per year
- Consults: 3-4 weeks per year
- Outpatient clinics: 5 half days per week when not on service
- Procedures / Interventions: 3 half days stress tests per week
- Committees / Organizations: P&T for heart failure medication; Residency Training Committee for cardiology program; SQIC conference planning
- Rounds: Medical Grand Rounds: 5-10 per year; Divisional Rounds: 2-3 per week; other rounds - national or international: 2-3 per year

### **Judith Therrien, MD**

- Undergraduate: 3 hours
- Postgraduate: 4 hours of lectures
- CCU teaching: 40 hours per year (8 weeks per year)
- Cardiology Consult Service teaching: 20 hours per year (4 weeks per year)
- Echocardiography clinic (teaching): 96 hours per year (46 weeks per year)
- Adult Congenital Heart Disease clinic (teaching): 144 hours per year (46 weeks per year)
- General Cardiology clinic: 48 weeks per year
- Research trainee supervision:
- ACHD Fellow with direct supervision of the ACHD fellow
- Thesis Advisory Committee for the Master of Science program of Experimental Medicine at McGill University

- Thesis Advisory Committee for the Doctorate of Science program of Chemical Engineering at McGill University
  - Clinical Innovation: Multidisciplinary Aorta clinic at MUHC
- Committees / Programs: Training Program Director for Adult Congenital Heart Disease Fellowship at McGill University
- Professional Activities: Medical Grand Rounds: 2 hours; Divisional Rounds: 45 hours; Other: 3-day conference in Abu Dhabi
- Editorial activities: Reviewer for Circulation, JACC, AJC, International Journal of Cardiology, Cardiology in the Young, Expert Review of Cardiovascular Therapy, Congenital Heart Disease Journal, Intensive Care Medicine, Heart and Vessels, Heart Journal of Cardiovascular Magnetic Resonance, Canadian Journal of Cardiology

### **Ann Walling, MD**

- Undergraduate: 16 hours
- Clinical Teaching: 60% per week (echo lab, CCU, consults stress tests)
- Consult Service: 4 weeks per year
- Outpatient / Clinic: -4-5 half days/week for 35 weeks
- Clinical Innovation: CVPC clinic now open to Herzl rapid access patients with chest pain
- Rounds & Meetings: Rounds - 53 hours; meetings - 12 hours
- Procedures: 40% in echo lab; 1-2 stress tests per month

### **3. Involvement in the community:**

The JGH Division of Cardiology welcomed top grade 11 students from the EMSB and private day schools to weekly observerships in its Division. In addition, the Center for Pulmonary Vascular Disease held its annual information day and walk for a cure for their PH Patient support group, attracting members from all of Quebec. Dr. Husa was a Science Fair judge at St. George's High School.

Under the directorship of Drs. Igal Sebag and Lawrence Rudski, as well as Chief Sonographer MJ Blais, the JGH hosted the 8th Annual JGH-McGill Imaging Symposium in June, with over 200 participants. Dr. Lawrence Rudski chaired the 19th annual Canadian Echo Weekend (Canadian Society of Echocardiography) in April, with over 700 attendees, making it the second largest cardiology meeting in Canada. Dr. Jonathan Afilalo co-chaired McGill's Annual Cardiology Research Day. Numerous JGH Faculty presented around the world at international conferences and fora.

### **4. Partnerships:**

The division collaborates with the McGill University Health Centre in key areas of congenital and structural heart disease, heart failure, arrhythmia and imaging and several key research arenas. We established a joint program with the CHUM to treat patients with chronic total coronary occlusions using innovative catheterization techniques. We have well-established research collaborations with numerous sites in the USA (Massachusetts General Hospital, University of Pittsburgh) and Europe (Hammersmith Hospital, London UK, Attikon University Hospital, Athens Greece), Soroka Hospital, Ben Gurion University of the Negev, Beer Sheba, Israel), among others

### **5. Milestones:**

Dr. Judith Therrien was promoted to Full Professor. Dr. Michael Goldfarb was recruited in 2017.



## **6. Honours, awards, and prizes:**

Dr. Lawrence Rudski served as President of the Canadian Society of Echocardiography - the largest affiliate of the Canadian Cardiovascular Society.

## **7. Fundraising:** None reported

# **SECTION I - DIVISION STATUS UPDATE**

## **1. Mission and objectives of the Division**

The Division strives for excellence in cardiovascular care through an academic, integrated, multidisciplinary patient centered approach.

The Division aims to create a leading cardiovascular sciences center combining excellence in education, meaningful research and innovative clinical care through a patient-centered experience. It will leverage the skills and resources of the Departments of Medicine, Surgery, Nursing and Multidisciplinary Care. By maintaining the focus on the patient, the health care system marshals its resources towards the singular aim of a successful outcome, medical and psychosocial. Improved access, cutting edge technology, both medical and information technology - and the implementation of best practices are essential components of this Institute. In addition, as the flagship institution of the CIUSSS Centre-de-l'Ouest-de-l'Île, the Division at the JGH will create pathways to ensure a smooth transition for the patient back to the community and its first line services. Through the creation of a learning center, teaching using innovative techniques will prepare the next generation of health care providers. Research focusing on areas that can be easily translated into practice will anchor the strong academic mission of the Institute.

## **2. Nominative list of academic staff, their academic rank**

The following full-time members of the Division are all active:

- Abualsaud, Ali Omar, Assistant Professor, Faculty of Medicine, McGill University (GFT-H)
- Afilalo, Dr. Jonathan, Assistant Professor, Faculty of Medicine, McGill University (GFT-U)
- Chen-Tournoux, Dr. Annabel, Assistant Professor, Faculty of Medicine, McGill University (GFT-H)
- Eisenberg, Dr. Mark, Professor, Faculty of Medicine, McGill University (GFT-U)
- Goldfarb, Michael, Assistant Professor, Faculty of Medicine, McGill University (GFT-H)
- Husa, Dr. Regina, Assistant Professor, Faculty of Medicine, McGill University (GFT-H)
- Joyal, Dr. Dominique, Assistant Professor, Faculty of Medicine, McGill University (GFT-H)
- Langleben, Dr. David, Professor, Faculty of Medicine, McGill University (GFT-H)
- Mardigyan, Dr. Vartan, Assistant Professor, Faculty of Medicine, McGill University (GFT-H)
- Michel, Dr. Caroline, Assistant Professor, Faculty of Medicine, McGill University (GFT-H)
- Rudski, Dr. Lawrence, Professor, Faculty of Medicine, McGill University (GFT-H)  
Chief, Division of Cardiology
- Schlesinger, Dr. Robert D, Assistant Professor, Faculty of Medicine, McGill University (GFT-H)
- Sebag, Dr. Igal, Associate Professor, Faculty of Medicine, McGill University (GFT-H)
- Sheppard, Dr. Richard, Assistant Professor, Faculty of Medicine, McGill University (GFT-H)
- Therrien, Dr. Judith, Associate Professor, Faculty of Medicine, McGill University (GFT-H)
- Walling, Dr. Ann, Associate Professor, Faculty of Medicine, McGill University (GFT-H)

## **SECTION II - GRANTS, PUBLICATIONS AND SERVICE OUTSIDE OF MCGILL**

### **1. Grants and awards received**

#### **AFILALO, Jonathan**

Fonds de la recherche en santé du Québec (FRSQ)

Mesure de la fragilité pour identifier les patients âgés à haut risque de complications après un remplacement valvulaire aortique chirurgical ou percutané

Instituts de recherche en santé du Canada (IRSC)

Measuring frailty in vascular patients undergoing surgical or endovascular procedures: A tailored approach to overcome existing barriers

Instituts de recherche en santé du Canada (IRSC)

Measurement of frailty to identify high-risk elderly patients referred for surgical and transcatheter aortic valve replacement

Sir Mortimer B. Davis - Hôpital Général Juif

Frailty Research Program

Fondation des maladies du cœur du Canada (FMCC)

Optimal revascularization strategy in patients undergoing aortic valve replacement

Réseaux de centres d'excellence du Canada (RCE)

The essential frailty toolset

#### **CHEN-TOURNOUX, A**

Department of Medicine, JGH

Echocardiographic quantification of epicardial fat and its implications for cardiovascular risk

#### **EISENBERG, Mark**

Regroupement de compagnies, fondations et particuliers (Canada)

AHA Highlights Event Nov 12, 2015 - Evidence-based advances in cardiology: Highlights from major conferences

Instituts de recherche en santé du Canada (IRSC)

Optimizing physician training in motivational communication (MC) skills for health behavior change

Regroupement de particuliers

Bright light therapy efficacy for depressive symptoms following cardiac surgery: Pilot Trial-BEAM-P

Instituts de recherche en santé du Canada (IRSC)

Evaluating the efficacy of E-cigarette use for smoking cessation (E3) trial

Université McGill

Varenicline and adverse cardiovascular events: A systematic review and meta-analysis of randomized controlled trials

Université McGill

Stent-retrievers versus standard care for acute ischemic stroke: A systematic review and meta-analysis of randomized controlled-trials

Instituts de recherche en santé du Canada (IRSC)

A population-based analysis of the trends in treatment and management of patients with acute myocardial infarction complicated by cardiogenic shock

**JOYAL, Dominique**

Department of Medicine, JGH

Novel techniques in chronic total occlusions (CTO) recanalization

**LANGLEBEN, David**

Bayer Canada Inc.

An open-label phase IIIb study of riociguat in patients with in-operable CTEPH, or recurrent or persisting pulmonary hypertension (PH) after surgical treatment who are not satisfactorily treated and cannot participate in any other CTEPH trial

Gilead Sciences

A phase 2, dose-ranging, randomized, double-blind, placebo-controlled study of GS-4997 in subjects with pulmonary arterial hypertension

Actelion Pharmaceuticals Canada Inc.

AC-065A303: Long-term single-arm open-label study, to assess the safety and tolerability of Act-293987 in patients with pulmonary arterial hypertension

Bayer Ag

Assessment of recruitment of functional pulmonary microvascular surface area in the determination of exercise limitation in patients with pulmonary arterial hypertension

Institut de Cardiologie de Montréal (ICM)

Phase-II study of the use of PulmoBind for molecular imaging of pulmonary hypertension

Department of Medicine, JGH

Assessment of recruitment of functional pulmonary microvascular surface area in the determination of exercise limitation in patients with pulmonary arterial hypertension

**MICHEL, Caroline**

Novartis Pharma Canada Inc.

A multicenter, randomized, double-blind, parallel group, active-controlled study to evaluate the efficacy and safety of LCZ696 compared to valsartan, on morbidity and mortality in heart failure patients (NYHA Class II-IV) with preserved ejection fraction

Bayer Canada Inc.

A randomized, double-blind, placebo-controlled, parallel-group, multi-center study to evaluate the hemodynamic effects of riociguat (BAY 63-2521) as well as study & kinetics in patients with pulmonary hypertension associated with left ventricular

Aventis Pharma

Heart failure clinic equipment donation

**RUDSKI, Lawrence**

Canadian Heart Research Center

Acute coronary syndromes quality enhancement research initiative III ACS III QuERI

Department of Medicine, JGH

Echocardiography-based research on the right heart

**SEBAG, Igal**

Department of Medicine, JGH

Matrix-array imaging for real-time, three-dimensional echocardiography and evolving techniques in cardiac mechanics

**SHEPPARD, Richard**

Novartis Pharma Canada Inc.

A multicenter, randomized, double-blind, parallel-group, active-controlled study to evaluate the efficacy and safety of LCZ696 compared to enalapril on morbidity and mortality in patients with chronic heart failure and reduced ejection fraction

Bayer Canada Inc.

A randomized, double-blind, double-dummy, multi-center study to assess safety and efficacy of BAY-94-8862 in subjects with emergency presentation at the hospital because of worsening chronic heart failure with left ventricular systolic dysfunction and

Janssen Pharmaceutica Inc

A randomized, double-blind, event-driven, multicenter study comparing the efficacy and safety of oral Rivaroxaban with placebo for reducing the risk of death, myocardial infarction or stroke in subjects with chronic heart failure and significant coronary

Novartis Pharma Canada Inc.

A multicenter study to evaluate safety and tolerability in patients with chronic heart failure and reduced ejection fraction from PARADIGM-HF receiving open label LCZ696

Amgen Canada Inc (Mississauga, Ont)

A double-blind, randomized, placebo-controlled, multicenter, dose escalation study to select and evaluate an oral modified release formulation of omecamtiv mecarbil in subjects with heart failure and left ventricular systolic dysfunction

Biomerieux: Primary investigator for investigator driven study

## **THERRIEN, Judith**

Department of Medicine, JGH

Beta Blockers and Angiotensin Receptor Blockers in Bicuspid Aortic Valve Disease Aortopathy

Hamilton Health Sciences

BAV - Beta-blockers and angiotensin receptor blockers in bicuspid aortic valve aortopathy

**TOTAL \$812,635**

## **2. Scholarly works published in the 2017 calendar year:**

### **Abualsaud, Ali Omar**

--Zhan Y, Burstein B, **Abualsaud AO**, Nosair M, Hirsch AM, Lesenko L, **Langleben D**. (2017). Right ventricular ST-elevation myocardial infarction as a cause of death in idiopathic pulmonary arterial hypertension. *Pulm Circ*. 2017 Apr-Jun;7(2):555-558. doi: 10.1177/2045893217704435. Epub 2017 May 12. PMID: 28597772

### **Afilalo, Jonathan**

--**Afilalo J**, Forman DE. Gait Speed Assessment in Transcatheter Aortic Valve Replacement: A Step in the Right Direction. *Circ Cardiovasc Interv*. 2017 Sep;10(9)

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**3. Academic and community engagement service outside of McGill by individual members of the unit:**

See above under Community Involvement

Members of the Division continue to serve in committees, editorial boards and to participate in other high level academic activities at national and international levels. Dr. Rudski serves as the President of the Canadian Society of Echocardiography and serves on the Board of Governors of the American College of Cardiology. He participates as well on several national and international imaging committees and writing groups. Dr. Sebag serves on the Board of Directors of the Canadian Society of Echocardiography as well as on ASE writing groups and committees. Dr Afilalo is the co-director of research for the American College of Cardiology's Geriatrics Council.

Dr. Langleben participated in guidelines development for international societies in pulmonary hypertension. Members have succeeded in the competing renewal of their grants as well as in obtaining additional support from peer-reviewed granting agencies. Dr. Afilalo's groundbreaking research on Frailty assessment has been incorporated into the Society of Thoracic Surgeons' risk assessment score - the international standard.

Submitted by:

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