SUMMARY

1. Research and publications:

Dr. Baron’s primary research interest is scleroderma. Dr. Baron has established the Canadian Scleroderma Research Group (CSRG) and the McGill Early Arthritis Registry that has performed research on recent onset inflammatory arthritis. He has also created CANCoRC, the Canadian Consortium of Rheumatology Cohorts, in an attempt to strengthen Canadian rheumatology research by seeking common funding and identifying commonalities across rheumatic disease research teams.

Most recently he established the International Systemic Sclerosis Inception Cohort (INSYNC) to study specifically of recent onset cases of Scleroderma. This involves participation from many countries.

Dr. Baron’s research has focused on ways of measuring disease activity and damage in scleroderma, as well as on aspects of nutritional deficiencies caused by the disease. In addition, he has brought in several labs to work with the biospecimens he has collected. They are working on multiple aspects of the disease, including the vascular abnormalities and control of fibroblast function.

He has also played an important role in Canada’s rheumatic disease research community by creating the concept of the Systemic Autoimmune Rheumatic Diseases (SARDs) as a group that deserves attention as a whole rather than just individually.

Dr Hudson pursues research in systemic autoimmune rheumatic diseases. In particular, she is a principal investigator in the Canadian Scleroderma Research Group (CSRG), a pan-Canadian cohort of over 1500 systemic sclerosis patients followed annually since 2004. She has done primarily outcomes research on this national dataset. In addition, given the rarity of the disease at hand, she has also established several international collaborations with leading scleroderma experts worldwide (International Scleroderma Renal Crisis Survey, Tri-nation (Canada, Houston, Australia) Scleroderma Cohort (undertaken to study the clinical correlates of some of the less frequent autoantibodies found in this disease), and International Systemic Sclerosis Inception Cohort (INSYNC)).

Dr Hudson is also the Director of the Canadian Inflammatory Myopathy Study (CIMS). Funded by a CFI grant awarded in 2010, we developed a study protocol to prospectively follow an incident cohort of patients with inflammatory myopathies. The database has been created, we have begun to recruit at 2 sites (McGill University and Centre Hospitalier de l’Université Laval) and a meeting to launch the national cohort took place May 16, 2014. More than 50 participants from 12 sites across Canada will attended. We
aim to recruit approximately 100 incident cases per year over the next 3 years, making this a unique resource worldwide.

Finally, after doing outcomes research for several years, Dr Hudson has now decided to also undertake translational research aimed at studying the etiopathogenesis of systemic autoimmune rheumatic diseases (SARDs). She has developed collaborations with a number of other scientists, including geneticists and environmental health experts, and has established the Canadian Network for SysTemic Autoimmune rheumatic diseases (CAN-STAR). The objective of this multi-disciplinary, cross-pillar, cross-disease network is to define the epigenetic signatures of SARDs, to investigate the contribution of air pollution to epigenetic abnormalities and to translate new findings into relevant disease biomarkers and targets for future intervention.

Dr Hudson has been appointed to the position of JGH Associate Director of Clinical Research

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

   The division continues to participate in undergraduate and post-graduate medical education. Dr Hudson is a tutor in the Basis of Medicine for medical students. She also supervises a number of undergraduate and medical students, as well as internal medicine residents, rheumatology fellows and post-graduate students.

   Dr. Berskon has developed and introduced seminar teaching series for rheumatology fellows, GIM fellows, and endocrinology fellows in osteoporosis since 2013.

   The members of the division spent a total of 2 weeks as attending on the medical wards.

3. **Involvement in the community:**

   Dr Baron is on the JGH policy committee.
   Dr. Hudson is on the LDI/JGH Clipp grant review committee.

4. **Partnerships:**

   The rheumatology research group has instituted the development of a new international research organization called The International Systemic Sclerosis Inception Cohort (InSync) with the aim of closely following the first few years of illness in patients with scleroderma from many different countries to develop a large enough cohort for important research. InSync includes researchers from Canada, United States, Germany, Holland, Sweden, Australia and Spain.

   Dr. Baron has established the Canadian Consortium of Rheumatology Research Cohorts (CANCoRC) which is a group of about 20 cohorts that work on cross-group efficiencies
and look at biospecimen SOPs, biospecimen tracking systems, ethics submissions and consent forms, cross disease data harmonization, and sharing web page resources.

As described above, Dr. Hudson participates in research on epigenetics of rheumatic diseases with a group at McGill University (CAN_STAR) and has established a new national cohort in inflammatory myopathies (CIMS).

The Division runs an osteoporosis clinic in partnership with endocrinology. It has a once/month clinic for rheumatic disease with lung disease and/or pulmonary hypertension. Scleroderma patients are seen once per week for collection of data for the Canadian Scleroderma Research group.

5. **Milestones:**

There were no changes in staffing in 2014.

6. **Honours, awards, and prizes:** None to report

7. **Fundraising:**

The division has received $130,000 in donation for research purposes.

SECTION I - DIVISION STATUS UPDATE

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

The Division strives to provide high level clinical care, education and research.

2. **A nominative list of academic staff, their academic rank**

Murray Baron, MD: Professor of Medicine
Marie Hudson, MD: Assistant Professor
Genevieve Gyger, MD: Attending Physician
Laeora Berkson, MD: Associate Professor of Medicine
Sabrina Fallavollita, MD: Assistant Professor

SECTION II - GRANTS, PUBLICATIONS, AND SERVICE OUTSIDE OF McGILL

1. **Grants and awards received**

Baron, Murray and Hudson Marie
2012-2017  Emerging Team: The Scleroderma Patient-centered Intervention Network (Emerging Team Grant: Rare Diseases - $1,500,000; PI Thombs); Canadian Institutes of Health Research (CIHR)

2010-2014  McGill Systemic Autoimmune Rheumatic Diseases (SARD) Project, CFI, PI Baron, $790,000

Hudson, Marie

2012-2016  Multidimensional Epigenomics Mapping Centre (EMC) at McGill, CIHR, Co-PI $5,665,000

2013-2014  Canadian Inflammatory Myopathy Study Networking Meeting, the Arthritis Society, PI Hudson, $10,000

2013-2014  CAN-STAR – Canadian Network for Systemic Autoimmune Rheumatic Diseases (LOI), CIHR, PI Hudson, $18,975

2013-2014  ImmunoSeq: novel immunogenetic discovery tool and its translation to personalized medicine in Finnish and Canadian partnership (LOI), CIHR, Co-PI, $20,000

2012-2014  Searching for identity in the dark: the experiences of women living with a rare and unpredictable disease (Insight Development Grants - $75,000; PI Thombs); Sciences Research Council (SSRC)

Salary awards:

Hudson, Marie :

2012-2015: Bourse de Chercheur-clinicien Junior 2, FRSQ
2012-2017: The Arthritis Society Investigator Salary Award (declined)

2. Scholarly works published in the 2014 calendar year:

Baron, Murray


Hudson, Marie


12: Baron M, Hudson M, Tatibouet S, Steele R, Lo E, Gravel S, Gyger G, El Sayegh


**Genevieve Gyger:**


Laeora Berkson


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

Dr. M. Hudson is a spokesperson for The Arthritis Society and serves as a medical advisor to the Arthritis West Island Self-Help Association (AWISH). Dr. L. Berskon serves as consultant rheumatologist for McGill RUIS, Abitibi, QC

SECTION III - CONFIDENTIAL INFORMATION

1. Consulting activities: None

Submitted by:

Murray Baron, MD
Chief, Division of Rheumatology