

Annual Report
Division of Rheumatology
Department of Medicine - Jewish General Hospital
January 1 - December 31, 2012

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.

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 one of the founding members of the Canadian Scleroderma Research Group (CSRG). She has published landmark studies documenting the magnitude of impairment in health-related quality of life (HRQoL) with scleroderma. She is particularly interested in scleroderma lung disease, its natural history, its optimal treatment, and its impact on HRQoL. Dr Hudson is also involved in a number of studies in other rheumatic diseases, including rheumatoid arthritis, systemic lupus erythematosus, and inflammatory myositis. In particular, she is a co-investigator on a large Canada Foundation for Innovation (CFI) funded study to develop a new integrated database and biospecimen tracking system for systemic autoimmune rheumatic diseases in order to support future cross-disease studies.

In brief, Dr. Hudson's research is in the field of systemic autoimmune rheumatic diseases. Currently, her main focus is on determining outcomes of patients with scleroderma lung disease.

The Division is currently involved in the development of InSync, the **I**nternational **S**ystemic Sclerosis **I**nception **C**ohort.

The Division has published extensively in 2012. Two noteworthy publications are:

Trang G, Steele R, Baron M, Hudson M. Corticosteroids and the risk of scleroderma renal crisis: a systematic review. *Rheumatol Int* 2012;32:645-53 and Steele R, Hudson M, Lo E, Baron M. Clinical decision rule to predict the presence of interstitial lung disease in systemic sclerosis. *Arthritis Care Res (Hoboken)* 2012;64:519-24.

2. Teaching and learning (undergraduate and graduate):

The Division continues to participate in undergraduate and post-graduate medical education. Several summer students have done research with Dr. Hudson.

Dr. Berskon has developed seminar teaching series for rheumatology fellows, GIM fellows, and endocrinology fellows in osteoporosis to be delivered in early 2013.

The members of the Division spent a total of 8 weeks as attending on the medical wards.

3. Involvement in the community:

Dr Baron is on the JGH policy 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, Israel, 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.

Dr. Hudson participates in research on epigenetics of rheumatic diseases with a group at McGill University and has established a new research cohort in inflammatory myopathies.

The Division is in the process of leading a project of harmonizing research data across four rheumatology research cohorts at McGill which may lead to more cross disease research

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 (New hires, promotions, and retirements):

Dr. Murray Baron was promoted to Full Professor, Faculty of Medicine, McGill University.

6. Honours, awards, and prizes: None reported

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, to participate in education and research.

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

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

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

1. Grants and awards received

Baron, Murray and Hudson Marie

01/2012 - 01/2017 Emerging Team: The Scleroderma Patient-centered Intervention Network (Emerging Team Grant: Rare Diseases - \$1,500,000; PI Thombs); Canadian Institutes of Health Research (CIHR)

Hudson, Marie

02/2012 - 01/2013 Environment, Epigenetics, and Rheumatic Diseases (catalyst grant - \$100,000; PI Bernatsky, Hudson, Colmegna); Canadian Institutes of Health Research (CIHR)

06/2012 - 05/2013 Cardiovascular Risk Assessment in Rheumatoid Arthritis (unrestricted grant - \$15,000; PI Hudson), Roche Canada

06/2012 - 04/2014 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)

07-2012 - 06/2013 Epigenetic signatures of systemic autoimmune rheumatic diseases - A Pilot Study (pilot funds - \$50,000; PI Hudson), Davis Institute for Medical Research, Jewish General Hospital, Montreal

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 2012 calendar year:

Baron, Murray

--Delaurier A, Bernatsky S, **Baron M**, Legare J, Feldman DE. Wait times for rheumatology consultation: is rheumatoid arthritis prioritized? *J Clin Rheumatol* 2012;18:341-4.

--Harding S, Khimdas S, Bonner A, **Baron M**, Pope J. Best practices in scleroderma: an analysis of practice variability in SSc centres within the Canadian Scleroderma Research Group (CSRG). *Clin Exp Rheumatol* 2012;30:S38-43.

--Pope J, Harding S, Khimdas S, Bonner A, **Baron M**. Agreement with guidelines from a large database for management of systemic sclerosis: results from the Canadian Scleroderma Research Group. *J Rheumatol* 2012;39:524-31.

--Purden M, Mustafa SS, Looper KJ, Zelkowitz P, **Baron M**. Care giving appraisal and disease activity in early inflammatory arthritis. *Scand J Caring Sci* 2012. [Epub ahead of print]

--Muangchan C, Harding S, Khimdas S, Bonner A, **Baron M**, Pope J. Association of C-reactive protein with high disease activity in systemic sclerosis: Results from the Canadian Scleroderma Research Group. *Arthritis Care Res (Hoboken)* 2012;64:1405-14.

--Shi-Wen X, Thompson K, Khan K, Liu S, Murphy-Marshman H, **Baron M**, Denton CP, Leask A, Abraham DJ. Focal adhesion kinase and reactive oxygen species contribute to the persistent fibrotic phenotype of lesional scleroderma fibroblasts. *Rheumatology (Oxford)*, 2146-54, 2012.

--Fransen J, Johnson SR, van den Hoogen F, **Baron M**, Allanore Y, Carreira PE, Czirjak L, Denton CP, Distler O, Furst DE, Gabrielli A, Herrick A, Inanc M, Kahaleh B, Kowal-

Bielecka O, Medsger TA, Jr., Mueller-Ladner U, Riemekasten G, Sierakowski S, Valentini G, Veale D, Vonk MC, Walker U, Chung L, Clements PJ, Collier DH, Csuka ME, Jimenez S, Merkel PA, Seibold JR, Silver R, Steen V, Tyndall A, Matucci-Cerinic M, Pope JE, Khanna D. Items for developing revised classification criteria in systemic sclerosis: Results of a consensus exercise. *Arthritis Care Res (Hoboken)* 2012;64:351-7

--Johnson SR, Fransen J, Khanna D, **Baron M**, van den Hoogen F, Medsger TA, Jr., Peschken CA, Carreira PE, Riemekasten G, Tyndall A, Matucci-Cerinic M, Pope JE. Validation of potential classification criteria for systemic sclerosis. *Arthritis Care Res (Hoboken)* 2012;64:358-67.

Gyger, Geneviève

--**Gyger G**, Baron M. Gastrointestinal manifestations of scleroderma: recent progress in evaluation, pathogenesis, and management. *Curr Rheumatol Rep* 2012;14:22-9.

--**Gyger G**, Hudson M, Lo E, Steele R, Baron M. Does cigarette smoking mitigate the severity of skin disease in systemic sclerosis? *Rheumatol Int* 2012. [Epub ahead of print]

Hudson, Marie

--Jewett LR, Razykov I, **Hudson M**, Baron M, Thombs BD; on behalf of the Canadian Scleroderma Research Group (CSRG). Prevalence of current, 12-month and lifetime major depressive disorder among patients with systemic sclerosis. *Rheumatology (Oxford)*. 2012 Dec 18. [Epub ahead of print]

--Levis B, Burri A, **Hudson M**, Baron M, Thombs BD; Canadian Scleroderma Research Group (CSRG). Sexual activity and impairment in women with systemic sclerosis compared to women from a general population sample. *PLoS One*. 2012;7(12):e52129. doi: 10.1371/journal.pone.0052129. Epub 2012 Dec 14.

--Arthurs E, Steele RJ, **Hudson M**, Baron M, Thombs BD; (CSRG) Canadian Scleroderma Research Group. Are Scores on English and French Versions of the PHQ-9 Comparable? An Assessment of Differential Item Functioning. *PLoS One*. 2012;7(12):e52028. doi: 10.1371/journal.pone.0052028. Epub 2012 Dec 14.

--Razykov I, **Hudson M**, Baron M, Thombs BD; Canadian Scleroderma Research Group. The utility of the PHQ-9 to assess suicide risk in patients with systemic sclerosis. *Arthritis Care Res (Hoboken)*. 2012 Nov 30. doi: 10.1002/acr.21894. [Epub ahead of print].

--Bernatsky S, Lix L, O'Donnell S, Lacaille D; CANRAD Network (including **Hudson M**). Consensus statements for the use of administrative health data in rheumatic disease research and surveillance. *J Rheumatol*. 2013 Jan;40(1):66-73. doi: 10.3899/jrheum.120835. Epub 2012 Nov 1.

--Borowoy AM, Pope JE, Silverman E, Fortin PR, Pineau C, Smith CD, Arbillaga H, Gladman D, Urowitz M, Zummer M, **Hudson M**, Tucker L, Peschken C.

Neuropsychiatric lupus: the prevalence and autoantibody associations depend on the definition: results from the 1000 faces of lupus cohort. *Semin Arthritis Rheum*. 2012 Oct;42(2):179-85.

--**Hudson M**, Pope J, Mahler M, Tatibouet S, Steele R, Baron M; Canadian Scleroderma Research Group (CSRG), Fritzler MJ. Clinical significance of antibodies to Ro52/TRIM21 in systemic sclerosis. *Arthritis Res Ther*. 2012 Mar 6;14(2):R50.

--Assayag D, Kaduri S, **Hudson M**, Hirsch A, Baron M. High resolution computed tomography scoring systems for evaluating interstitial lung disease in systemic sclerosis patients. *Rheumatology: Current Research* 2012; S1.

--**Hudson M**, Thombs BD, Steele R, Baron M. Patient-reported outcome measures in systemic sclerosis: comment on the article by Hinchcliff et al. *Arthritis Care Res (Hoboken)* 2012;64:942-3; author reply 3-4.

--Newkirk MM, Mitchell S, Procino M, Li Z, Cosio M, Mazur W, Kinnula VL, **Hudson M**, Baron M, Fritzler MJ, El-Gabalawy HS. Chronic smoke exposure induces rheumatoid factor and anti-heat shock protein 70 autoantibodies in susceptible mice and humans with lung disease. *European Journal of Immunology* 2012;42:1051-61.

--Levis B, **Hudson M**, Knafo R, Baron M, Nielson WR, Hill M, Thombs BD. Rates and correlates of sexual activity and impairment among women with systemic sclerosis. *Arthritis Care Res (Hoboken)* 2012;64:340-50.

--Steele R, **Hudson M**, Lo E, Baron M. Clinical decision rule to predict the presence of interstitial lung disease in systemic sclerosis. *Arthritis Care Res (Hoboken)* 2012;64:519-24.

--Leavens A, Patten SB, **Hudson M**, Baron M, Thombs BD. Influence of somatic symptoms on patient health questionnaire-9 depression scores among patients with systemic sclerosis compared to a healthy general population sample. *Arthritis Care Res (Hoboken)* 2012;64:1195-201.

--Jewett LR, **Hudson M**, Malcarne VL, Baron M, Thombs BD. Sociodemographic and disease correlates of body image distress among patients with systemic sclerosis. *PLoS ONE* 2012;7:e33281.

--**Hudson M**, Mahler M, Pope J, You D, Tatibouet S, Steele R, Baron M, Fritzler M. Clinical correlates of CENP-A and CENP-B antibodies in a large cohort of patients with systemic sclerosis. *J Rheumatol* 2012;39:787-94.

--Bassel M, **Hudson M**, Baron M, Taillefer SS, Mouthon L, Poiraudau S, Poole JL, Thombs BD. Physical and occupational therapy referral and use among systemic sclerosis patients with impaired hand function: results from a Canadian national survey.

Clin Exp Rheumatol 2012;30:574-7.

--Caron M, **Hudson M**, Baron M, Nessim S, Steele R. Longitudinal study of renal function in systemic sclerosis. J Rheumatol 2012;39:1829-34.

--**Hudson M**, Steele R, Baron M. Immunosuppression for interstitial lung disease in systemic sclerosis - novel insights and opportunities for translational research. J Cell Commun Signal, 187-190, 2012

--Thombs BD, Jewett LR, Assassi S, Baron M, Bartlett SJ, Maia AC, El-Baalbaki G, Furst DE, Gottesman K, Haythornthwaite JA, **Hudson M**, Impens A, Korner A, Leite C, Mayes MD, Malcarne VL, Motivala SJ, Mouthon L, Nielson WR, Plante D, Poiraudreau S, Poole JL, Pope J, Sauve M, Steele RJ, Suarez-Almazor ME, Taillefer S, van den Ende CH, Arthurs E, Bassel M, Delisle V, Milette K, Leavens A, Razykov I, Khanna D. New directions for patient-centred care in scleroderma: the Scleroderma Patient-centred Intervention Network (SPIN). Clin Exp Rheumatol 2012;30:S23-9.

--Harel D, Thombs BD, **Hudson M**, Baron M, Steele R. Measuring fatigue in SSc: a comparison of the Short Form-36 Vitality subscale and Functional Assessment of Chronic Illness Therapy-Fatigue scale. Rheumatology (Oxford), 2177-85, 2012

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:

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Chief, Division of Rheumatology