

# CaNIOS Newsletter

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## Important Dates

**November 8, 2009** - CRA Abstract Deadline

**November 19-21, 2009** - CAN Annual Scientific Meeting

**January 15, 2010** - 9th International Congress on SLE Abstract Deadline

**February 3-6, 2010** CRA Conference, Chateau Frontenac, Quebec City

**June 24, 2010** - CaNIOS Business Meeting

**June 24-27, 2010** - 9th International Congress on SLE, Vancouver, BC.

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## Eyeglasses off for LuNNET

Last month, 2 LuNNET talks and 2 posters were presented at ACR. Of these, 2 abstracts focused on biomarkers. One finding reported a correlation between urinary cyto/chemokines and renal histopathology in SLE, and another suggested the clinical utility of changes in cyto/chemokines as markers of disease activity in lupus. LuNNET is now in its 5<sup>th</sup> year of funding and a renewal has been submitted to CIHR last September. In our cohort 1, our pathologists were able to re-score 244 archived renal

biopsies from UHN SLE patients according to the new ISN classification. In our cohorts 2 and 3 we were able to successfully enroll 229 patients with SLE including patients with active and inactive disease, with and without lupus nephritis. LuNNET patients are followed longitudinally, and data regarding the exposure to various environmental factors, quality of life and the use of health care resources are collected prospectively for 5 years. Blood and urine are also collected from these patients

quarterly with the hope of finding novel biomarkers that could predict SLE disease activity. In patients requiring a renal biopsy, a triad of renal tissue, blood and urine are analyzed for various biomarkers with the aim of identifying markers in the blood and/or urine that can predict renal disease activity. The ultimate goal is to define better biomarkers of renal lupus and possible to replace the need for renal biopsy.

## HIPP Update

CaNIOS TWH Centre 17 has welcomed a new member, Dr. Valentina Peeva, who will be working closely with the HIPP study. Data is now being analyzed to describe our population at baseline. These analyses include bone mineral density and osteoporosis risk factors, cardiovascular disease

risk factors, and influences of socio-economic factors on disease. We are hoping to present our results in the upcoming CRA Meeting next year. Meanwhile, the Lupus Health Passport has created some international buzz and is currently being adapted and translated for use in other lupus

populations. A paediatric LHP is also being validated in San Francisco, New Brunswick (NJ, USA) and Vancouver, and interest for a web-based version is also being discussed while sources of funding are being explored.

## Filling You In For ThromboFIL

In Phase I of the ThromboFIL study, 359 newly diagnosed persons with SLE were recruited and followed over three years for thrombotic events. To date, we have observed 40 new thrombotic events in 27 patients.

We have submitted to both the Heart and Stroke Foundation and CIHR for funding to start Phase 2 of this study. In Phase 2, we will continue to follow the initial 359 participants from Phase I and will recruit an additional 350 patients. We will

evaluate thrombophilic risk factors using serological, functional disease measures and disease modeling. Serological testing will include the study of antiphospholipid antibodies (aPL) in combination with other biomarkers implicated with thrombotic risk. Functional measurements will be performed on a subset of individuals to assess the role of inflammation at the level of the endothelium. Clinical measurements of endothelial function will include flow mediated dilatation

studies and laboratory measurements will include in vitro endothelial cell studies. Disease modeling will be used to develop predictive models that would define high and low risk profiles for the development of arterial and venous thrombosis in SLE. These predictive models would provide a tool for clinicians to evaluate the risk of thrombosis in their SLE patients and would serve to help researchers test additive effects of newly identified risk factors.

## SLE GWAS: Awash With Excitement

We have now started performing quality control analysis on our DNA bank of lupus patients. In the coming weeks, CaNIOS is hoping to contribute close to 1000 DNA samples from lupus patients of European heritage to

the European GWAS Study. The most important task ahead of us is working on the ethics approval with other centres, and finalizing the material transfer agreement with our collaborators in the UK. CaNIOS is very excited to

be part of this study. For 2 years we were trying to convince our funding agency peer reviewers that this study is worth every tax cent. Now, exciting days are ahead of us through a generous donor in the UK.

## CRA Abstracts Submitted

Morrison S, Aghdassi E, Peeva V, Su J, Landolt-Marticorena C, Gladman DD, Urowitz MB, Pineau C, Pope J, Peschken C, CaNIOS LuNNET Investigators, Wither J, Fortin PR. Perceived Stress in Female Patients with Systemic Lupus Erythematosus (SLE).

Borowoy A, Peschken C, Pope J on behalf of 1000 Faces of Lupus Investigators. The Prevalence of CNS Lupus in Canada: Results from the 1000 Faces of Lupus Cohort.

Lee J, Pope J, Peschken C on behalf of 1000 Faces of Lupus. Incidence of and Predictors of Hospitalization of Patients with Systemic Lupus Erythematosus.

Yip J, Aghdassi E, Su J, Lou W, Reich H, Bargman J, Scholey J, Gladman DD, Urowitz MB, Fortin PR. Serum Albumin as a Marker for Disease Activity in Patients with Systemic Lupus Erythematosus (SLE).

Peeva V, Aghdassi E, Morrison S, Cymet A, Su J, Neville C, Hewitt S, CaNIOS HIPP Investigators, Pineau C, DaCosta D, Pope J, Fortin PF. Cardiovascular Disease Risk Profile in Patients with Systemic Lupus Erythematosus (SLE) without Past History of Cardiovascular Events.

Peeva V, Su J, Aghdassi E, Gladman DD, Urowitz MB, Landolt-Marticorena C, Yeo E, Fortin PR. Clinical Characteristics and quality of life of Patients with primary and secondary antiphospholipid syndrome.

Zhang W, Aghdassi E, Reich HN, Scholey JW, Su J, Lou W, Fortin PR. Impaired Renal Function in Patients with Systemic Lupus Erythematosus (SLE) Predicts Cardiovascular Events.

Zhang W, Aghdassi E, St-Pierre Y, Clarke AE, Landolt-Marticorena C, Morrison S, Su J, Reich H, Scholey J, Herzenberg A, Pineau C, Pope J, Peschken C, CaNIOS Investigators, Wither J, Fortin PR. Health Care Cost in a Canadian Population of Patients With & Without Lupus Nephritis.

Aghdassi E, Peeva V, Morrison S, Cymet A, Su J, Neville C, Hewitt S, Cheung AM, CaNIOS HIPP Investigators, Pineau C, Pope J, DaCosta D, Fortin PR. Low Bone Mass in Female Patients with Systemic Lupus Erythematosus (SLE): A Canadian Study.

Jeyalingam T, Aghdassi E, Su J, Clarke AE, Cooper GS, Rioux JD, Wither J, CaNIOS GenES-Investigators; PR, Fortin. Quality of Life of Patients with Systemic Lupus Erythematosus (SLE) and Their Family Members.

Peschken CA, Pope J, Silverman E, Fortin PR, Pineau C, Zummer M, Urowitz M, Gladman D, Hudson M, Tucker L, Chevillat G, Huber A, Bernatsky S, Clarke A, Smith CD, Arbillaga H, Ramsey SE, and CaNIOS Investigators. Lupus in Asian Canadians: The 1000 Canadian Faces of Lupus Study.

Bernatsky S, Peschken C, Urowitz M, Gladman D, Clarke AE, Pope J, Fortin PR, Pineau CA, Zummer M, Smith CD, Arbillaga H, Hudson M and CaNIOS - 1000 Canadian Faces of Lupus. Medication Use in Systemic Lupus Erythematosus.

### CaNIOS Authorship Definition

**To be a named author in any CaNIOS publication, one must meet conditions 1, 2, and 3 below:**

- (1) Substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data;
- (2) Drafting the article or revising it critically for important intellectual content; and
- (3) Final approval of the version to be published.

### Manuscripts Submitted or Under Revision

#### (LuNNET Cohort I Study)

Reich, HN, Gladman DD, Urowitz MB, Fan CPS, Herzenberg AM, Bargman JM, Cattran DC, Su J, Wither J, Scholey JW, Fortin PR. Chronic kidney disease in systemic lupus erythematosus – more than inflammation. In revision for resubmission.

#### Lupus (1000 Faces of Lupus)

Yuen SY, Mok MY, Wong WS, Silverman ED, Pope JE, Fortin PR, Smith CD, Zummer M, Hudson M, Pineau C, Clarke A, Bernatsky S, Urowitz M, Gladman D, Canadian Network For Improved Outcomes In Systemic Lupus Erythematosus (CaNIOS), Peschken CA. Systemic Lupus Erythematosus: A Comparative Study of Clinical Manifestations and Damage in Two Chinese Populations. Feb 2009.

#### Rheumatology (1000 Faces of Lupus)

Bernatsky S, Peschken C, Fortin PR, Urowitz M, Gladman D, Pope J, Hudson M, Zummer M, Smith D, Arbillaga H, Clarke A, CaNIOS. Medication Use in Systemic Lupus.

#### Journal of Rheumatology (LuNNET-TWH)

Zhang W, Aghdassi E, Reich HN, Su J, Lou W, Landolt-Marticorena C, Gladman D, Urowitz MB, Scholey J, Fortin PF. Glomerular Filtration Rate Predicts Cardiovascular Events in Patients with Systemic Lupus Erythematosus. CMAJ.

Yip J, Aghdassi E, Su J, Lou W, Reich HN, Bargman J, Scholey J, Gladman DD, Urowitz MB, Fortin PR. Serum Albumin as a Marker for Disease Activity in Patients with Systemic Lupus Erythematosus.

### In Press

#### Arthritis and Rheumatism

Jung H, Bobba R, Su J, Shariati-Sarabi Z, Gladman D, Urowitz M.B., Lou W, Fortin PR. The Protective Effect of Antimalarial Drug on Thrombovascular Events in Systemic Lupus Erythematosus

#### Journal of Rheumatology (LuNNET and HIPP)

Aghdassi E; Morrison S, Marticorena Landolt C, Su J, Clarke Ann, Gladman D, Urowitz M, Pope J, Peschken C, Pineau C, CaNIOS LuNNET & HIPP Investigators, DaCosta D, Wither J, Fortin PR. The Use of Micronutrient Supplements: Relation to Quality of Life & Disease Activity in Canadian Patients with Systemic Lupus Erythematosus.

#### Journal of Rheumatology (1000 Faces of Lupus)

Lalani S, Peschken C, Pope J, CaNIOS 1000 Faces of Lupus Investigators. Clinical Features and Prognosis of Late Onset SLE.

Mittoo S, Gelber A, Hitchon C, Silverman ED, Pope JE, Fortin PR, Pineau C, Smith CD, Arbillaga H, Gladman D, Urowitz M, Zumer M, Clarke A, Bernatsky S, Hudson M, Tucker L, Petty R, CaNIOS, Peschken CA. Clinical and Serologic Predictors of Lupus Pleuritis.

### Manuscripts In Preparation (Contact senior author if you wish to be included as author.)

- GenES Study :** TLR Replication - Dr. Joan Wither  
 Serology Studies - Dr. Joan Wither  
 Environmental Data (i.e., pottery, nail salons, home renovation, etc.) - Dr. Glinda Cooper  
 Analysis of Candidate Genes and SNPs - Drs. J Wither/Dr. PR Fortin/Dr J Rioux  
 Quality of Life - Dr. Paul R. Fortin
- LuNNET Study:** BAFF Expression in Lupus - Drs. J Wither/PR Fortin  
 Gene expression from renal biopsies - Dr. H. Reich  
 Cost Analysis- Dr. Paul R. Fortin
- 1000 Faces of Lupus Study:** Pediatric Lupus - Dr. L.Tucker/Dr. C. Peschken
- HIPP Study:** FMD—Please contact Dr. P. Fortin

