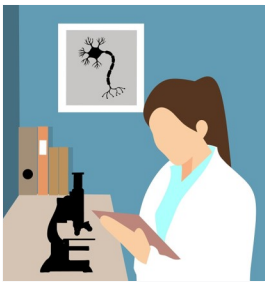
Research Across Canada

"Thank you" to the inspiring and dedicated Canadian researchers and health care providers who are contributing to the development of ground-breaking interventions, improved diagnostic techniques and understanding of scleroderma. Though the disease may be rare, the community supporting quality of life improvement for people impacted by scleroderma provides a broad source of hope. Here is a sample of some of the outstanding research efforts taking place in our own country.

To read more about the research across Canada, please visit the ***Research section*** of our website **sclerodermamanitoba.com.**

WINNIPEG, MANITOBA



DR. ADA MAN
University of Manitoba

Development and validation of a patient-reported outcome instrument for skin involvement in patients with systemic sclerosis: This study developed a patient questionnaire to assess the skin-related quality of life in patients with systemic sclerosis. It shows reliability and validity and is complementary to existing measures of SSc skin involvement with emphasis on the patient's experience.

CALGARY, ALBERTA

DR. MARVIN FRITZLER
University of Calgary

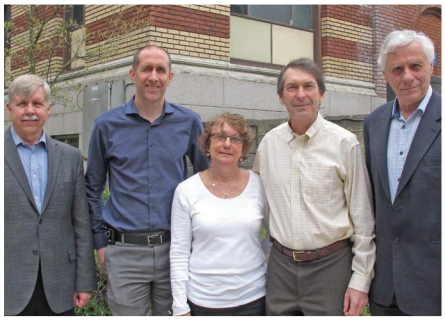
Autoantibodies to a novel Rpp38 (Th/To) derived B-cell epitope are specific for systemic sclerosis and associate with a distinct clinical phenotype: This study screened certain proteins that target autoantibodies in scleroderma patients, and evaluated their clinical relevance. Detection of antinuclear antibodies and specific autoantibodies is important in the diagnosis and classification of SSc. The new RNA P protein holds promise to increase the sensitivity in the detection of autoantibodies, enhancing the diagnosis of SSc.

DR. JAN STOREK
University of Calgary

Myeloablative Autologous Hematopoietic Stem Cell Transplantation for Severe Scleroderma: Long-Term Outcomes 6-11 Years after Entry on a Randomized Study Comparing Transplantation and Cyclophosphamide: This study reports subject survivor status, late effects and outcomes 6-11 years after the Scleroderma: Cyclophosphamide or Transplantation (SCOT) trial. This follow-up analysis demonstrates the clinical benefits of stem cell transplantation (HSCT) remain 6-11 years after the study. Survival and functional status were significantly better with HSCT, and continuing control of scleroderma was demonstrated by 92% of transplant survivors remaining free of disease.

Research Across Canada

VANCOUVER, BC



DR. JAMES DUNNE, DR. KEVIN KEEN

Scleroderma Clinic, Mary Pack Arthritis Program, Vancouver Coastal Health Authority (Vancouver General Hospital)
Scleroderma Lung Clinic & Combined Scleroderma Pulmonary Arterial Hypertension Clinic, Pacific Lung Health Centre, Providence Health Care (St. Paul's Hospital)
Providence Health Care Research Institute, (St. Paul's Hospital)

Scleroderma Association of B.C. Research Project is a community-based patient-oriented study to discover the impact of certain RNA molecules on biochemical processes at the cellular level with the goal of targeted therapeutic interventions to correct the disturbed cycle of regeneration in heart, lung, and skin tissues in scleroderma and lung tissue in idiopathic pulmonary fibrosis.

MONTREAL, QUEBEC

DR. JEAN-LUC SENECAL

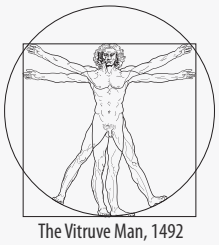
CHUM Research Center
Scleroderma Research Chair
University of Montreal

The pathogenic roles of autoantibodies in scleroderma: At the request of the Journal of Scleroderma and Related Disorders (JSRD), which is the only international medical journal dedicated solely to scleroderma, this study analyzed how autoantibodies in the blood of scleroderma patients contribute to disease mechanisms. It was concluded that anti-topoisomerase I is the single autoantibody with the most evidence in favor of a pathogenic role in scleroderma, followed by anticentromere autoantibody. A better understanding of how these autoantibodies contribute to scleroderma manifestations may lead to improved therapies.

DR. SABRINA HOA

CHUM Research Center
University of Montreal

Association between immunsuppressive therapy and course of mild interstitial lung disease in systemic sclerosis (SSc-ILD): The objective of this study was to determine whether use of immunosuppressive drugs, namely cyclophosphamide or mycophenolate mofetil, was associated with an improved course of lung disease in patients with normal or mildly reduced lung function. In this setting, exposure to these immunosuppressive drugs at the beginning of the study was associated with higher forced vital capacity values and a lower risk of progression among patients with mild interstitial lung disease at two years of follow-up. These data suggest a possible window of opportunity to preserve lung function in mild SSc-ILD.



The Vitruve Man, 1492

DR. HEENA MEHTA, DR. MARIKA SARFATI

CHUM Research Centre
Immunoregulation Laboratory
University of Montreal

From bench to bedside to bench…

Recent acquisition of cutting-edge instrumentation enables the comprehensive study of the immune profile in blood and at barrier tissues. Establishing a link between different clinical presentations of scleroderma and the immune landscape at a given timepoint of the disease will open the doors for identifying new immune therapeutic targets and novel clinical management strategies.

DR. MARIE HUDSON

Lady Davis Institute for Medical Research, Montreal Jewish General Hospital

Generation of a Core Set of Items to Develop Classification Criteria for Scleroderma Renal Crisis Using Consensus Methodology: This study helped to generate a method of classification for scleroderma renal crisis (SRC), which will be used in future phases of this project to develop classification criteria for scleroderma renal crisis.

Research Across Canada

MONTREAL, QUEBEC

DR. CELIA GREENWOOD

Lady Davis Institute for Medical Research, McGill University

Whole-genome bisulfite sequencing in systemic sclerosis provides novel targets to understand disease pathogenesis:

This study investigated the role of DNA methylation in SSc and will be used for future studies on the same subject.

DR. BRETT THOMBS

McGill University

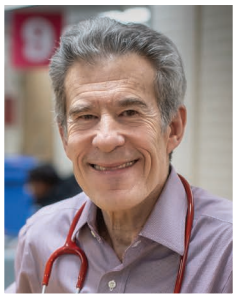
Scleroderma Patient-centered Interventional Network (SPIN), maintains an international patient database used to study psychosocial and rehabilitative online programs and toolkits to improve the health-related quality of life of patients living with scleroderma.

TORONTO, ONTARIO

DR. SINDHU R. JOHNSON

Toronto Scleroderma Program - University Health Network & Sinai Health Systems

Nintedanib for Systemic Sclerosis-Associated Interstitial Lung Disease: An international, multicenter study that found treatment with nintedanib (OFEV®) slows progression of scleroderma-associated interstitial lung disease. Thanks to this study, OFEV® was approved by Health Canada and is now available in Canada.



DR. RONALD LAXER, DR. ELENA POPE

Toronto Hospital for Sick Children

Developing comparative effectiveness studies for a rare, understudied pediatric disease: This study investigated the feasibility of conducting a comparative effectiveness study for juvenile localized scleroderma, a rare pediatric disease, for which there is limited evidence on best therapy.

LONDON, ONTARIO

DR. JANET POPE

St. Joseph's Health Care, London ON
Western University, London ON
(London Health Sciences Centre)

Changes in skin score in early diffuse cutaneous systemic sclerosis are associated with changes in global disease severity: This study determined that at 1 and 2 years, skin scores showed overall improvement in early diffuse cutaneous scleroderma patients, improving prognosis and quality of life.

HALIFAX, NOVA SCOTIA

DR. EVELYN SUTTON

Dalhousie University

Clinical correlates of faecal incontinence (FI) in systemic sclerosis: identifying therapeutic avenues: This study established the prevalence and severity of FI in SSc, its association with other intestinal manifestations and potential predictors of FI, and its impact on quality of life. FI was found to be common and often severe in SSc. Loose stools, SIBO, constipation and urinary incontinence were strongly associated with FI. Other than targeting anorectal dysfunction, concomitant treatment of clinical correlates could lead to improvement in FI and quality of life in SSc.