

GRANTS AWARDED

2013

- 1. Saghar Sadeghi, University of Toronto: Project entitled, “The effect of BLYS on B cell Tolerance in Patients with Primary Sjogren’s Syndrome”.**

Supervisor, Dr. Joan Wither, University of Toronto, Division of Rheumatology, Department of Medicine

Purpose of Project: To examine the proportion of self-reactive and anergic B cells in Sjogren’s Syndrome patients and determine the correlation between BAFF and auto-antibody levels.

Explanation:

In mice, high levels of BAFF have been shown to overcome the tolerance process leading to increased proportions of nuclear antigen-reactive cells in the naïve B cell repertoire and production of anti-nuclear antibodies. In Systemic Lupus Erythematosus (SLE), a condition that overlaps with and shares a similar genetic susceptibility to Sjogren’s Syndrome, there is evidence that there is defective purging of self-reactive and anergic B cells. Although previous experiments suggest that Sjogren’s Syndrome patients have similar B cell abnormalities to SLE patients, the proportions of anergic and self-reactive B cells have not been examined, nor have they been correlated with the BAFF levels in these individuals. We hypothesize that there will be a marked increase in these populations in Sjogren’s Syndrome patients as a result of the marked elevations in BAFF, and that this plays a critical role in the breach of tolerance leading to autoantibody production in these individuals.

- 2. Dr. William Ngo, University of Waterloo: Project entitled, “Lid Wiper Epitheliopathy and Marx’s Line Placement in Sjögren’s Syndrome”.**

Supervisor, Dr. Sruthi Srinivasan, University of Waterloo, School of Optometry

Purpose of Project: Evaluate LWE and the placement of Marx’s line in subjects with and without SS, and find the strength of correlation of those tests to tearfilm breakup time, meibography, meibomian gland assessment, meibum quality, Schirmer’s I, corneal staining, and subjective questionnaire scores.

Explanation:

There are two ocular signs that have recently been considered in the assessment of dry eye and meibomian gland dysfunction. The first is lid wiper epitheliopathy (LWE), which was hypothesized to be caused by mechanical friction between the superior palpebral marginal conjunctiva (wiper region) and the cornea. As the mechanical friction increases due to lack of tears, trauma to the wiper region can be observed with Lissamine green. The second sign is the placement of Marx’s line relative to the meibomian gland orifices, of which the position was hypothesized to be dependent on changes in the osmotic gradient along the tear meniscus.

There is currently a lack of clinical studies that explore these signs in subjects with SS, therefore the purpose of this project will be to determine, in subjects with SS, whether any correlation exists between LWE and Marx’s line placement, and between any of the traditional dry eye testing methods. The results of this study will allow dry eye researchers to understand the role of LWE and Marx’s line in the context of severe,

aqueous deficient dry eye, and more importantly, the results may provide clinicians with more diagnostic tools to manage Sjögren's Syndrome-associated dry eye.

2012

- Laura Tan, Dentistry student, University of Toronto: Project entitled, "Effectiveness of a Green Tea Chewing Gum on Salivary Flow Rate, Quality of Life and Inhibition of Caries Associated Microbiota in Sjogren's Syndrome Patients".
Supervisor, Dr. Leslie Laing, University of Toronto, Faculty of Dentistry
- Kara Menzies, Optometry Student, University of Waterloo: Project entitled, "Infrared Imaging of Meibomian Glands and Evaluation of Lipid Layer in Sjogren's Syndrome Patients".
Supervisor, Dr. Sruthi Srinivasan, University of Waterloo, School of Optometry

2011

- Tanya Hauck, a second year medical student at the University of Toronto: Project entitled, "Sjögren's Syndrome: How are patients identified and referred for investigation? A retrospective study of obstacles, delays and pathways to diagnosis and treatment".
The goals of this project are to identify the routes patients take to reach a final diagnosis, the manner in which different specialty groups identify these patients, the gap between patient and physician perspectives on the impact of presenting symptoms, and the frequency with which patients are the first to identify a diagnosis of Sjögren's Syndrome. The study entails a retrospective chart review until we accumulate 150 patients referred for screening for possible Sjögren's Syndrome, a patient questionnaire, circulated to former attendees at the Multidisciplinary Sjögren's Clinic at University Health Network, and a validation of the questionnaire through volunteer members of the Sjögren's Society of Canada.
Supervisor, Dr. Arthur Bookman, University of Toronto, Co-ordinator Multidisciplinary Sjögren's Clinic

2010

- Mr. Vladimir Jokic, University of Toronto, Dentistry: Project entitled, "Subjective Effectiveness of Various Oral Moisturizers on Relief of Xerostomia in Sjögren's Syndrome Patients". Supervisor, Dr. Leslie Laing, University of Toronto, Faculty of Dentistry
- Sebastian Vrouwe, University of Alberta, Department of Ophthalmology: Project entitled, "The 1-minute Schirmer Test with Anaesthesia-A Validation Study. Supervisor, Dr. Ezekiel Weis, University of Alberta, Faculty of Medicine and Department of Ophthalmology, MD Program.

2009

- Ms. Melissa Oliver, University of Toronto: Project entitled, "The Natural History of Sjögren's Syndrome". Supervisor, Dr. Barbara Caffery, University of Toronto
- Ms. Elisia Jagdeo, University of Toronto, Department of Dentistry: Project entitled, "Subjective Effectiveness of Various Oral Moisturizers on Relief of Xerostomia in Sjögren's Syndrome Patients".
Supervisor, Dr. Laing Gibbard, University of Toronto, Faculty of Dentistry