

# St. Michael's Hospital

## Voice and Upper Airway Lab

### Jennifer Anderson

Two projects were successfully executed this year in conjunction with the voice laboratory. The first was a combined project with faculties of music and medicine on the effects of external vibration on voice in trained singers. This was a randomized controlled study with 27 study subjects and is in the manuscript preparation phase. The results will be presented at the combined PAVA and fall voice meeting in October 2016.

The second project was the development of a novel microlaryngeal surgery simulator (with porcine larynges) for teaching and competency assessment. Drs. Theresa Holler and Jennifer Anderson are co-investigators with Dr. Yelda Jozaghi, one of our residents participating in the project. Two lab sessions with 18 trainees were held and the project is currently in the data analysis phase.

Dr. Dulani Mendis, the graduating laryngology fellow, had retrospectively reviewed laryngeal trauma secondary to sporting injuries in patients presenting to St. Michael's Hospital Voice Clinic over a ten year period. This was presented at the CSO meeting in Charlottetown and the manuscript has been submitted for publication.

## Grants

### 2015-2016

*Validation of a Novel Microlaryngoscopy Simulator and Assessment*

AFP (Alternate Funding Plan) Innovation Grant  
\$10,950.00

Dr. Theresa Holler, Dr. Jennifer Anderson

### 2016 Education Research

*Investigating Organizational Drivers of Resident Fatigue*

AFP Innovation Grant \$21,972.00

Investigators: Drs. Julie Maggie, Najma Ahmed, S. Edwards and Molly Zirkle

This study seeks to identify the organizational influences that drive and mitigate fatigue in residents rotating through three distinct units within a large academic health sciences centre. Using text analysis, interviews, and ethnographic observation, we will conduct an institutional ethnography on resident fatigue in three units located in a large urban academic-teaching hospital. The findings and their dissemination, locally and nationally, will serve as an important step in the evolution towards comprehensive and contextually appropriate fatigue-management strategies.

## Rhinology Research

### John Lee

2015-2016 continued to be a year of growth in rhinology research at St. Michael's Hospital. The most exciting news is that the Nasal Physiology Lab has now acquired a portable nasal nitric oxide (nNO) detector. Combining this with our airflow and olfaction testing, we are able to comprehensively evaluate various sino-nasal conditions in patients being seen in the rhinology clinic. This will help build on our research agenda of investigating the role of nNO in patients with chronic rhinosinusitis. Our initial prospective study on this topic was published in the International Forum of Allergy & Rhinology in October 2015.

Six manuscripts were published this year; largely this research productivity is directly attributed to the dedication and hard work from our motivated residents. Topics ranged from steroid impregnated middle meatal spacers to the psychological morbidity of waiting for sinus surgery. A special thanks goes out to Drs. Jason Xu, Gordon Tsang, Gavin le Nobel, Jonathan Yip and Michael Au.

We are also excited to announce that the "Handbook of Skull Base Surgery" was published by Thieme Inc. in February 2016. With editors Drs. Michael Cusimano, Antonio Di Ieva and John Lee, all from St. Michael's Hospital, this was a large undertaking and produced a handbook that offers a step-by-step

approach in this complex field. Dr. Jennifer Anderson was author on two chapters as well.

Finally, the groundwork for a number of prospective multi-centered studies was established this past year. From in-clinic polypectomy to post-sinus surgery irrigations and novel adjuvant treatments for nasal polyposis, we are excited to recruit patients this upcoming year and continue the tradition of rhinology research at SMH.