

THE LOBE AND MAIL

EVENTS Save the Date!

April 10, 2019 | 12pm Vaisakhi-Nowruz Celebration Gourlay Conference Room St. Paul's Hospital

April 30, 2019 | 10 am **CPR Seminar - Career Spotlight** Kasia Wojcik, PhD, PMP Medical Scientific Liaison, **Novartis** Gourlay Conference Room St. Paul's Hospital

June 20, 2019 **HLI Trainee Research Day UBC** Robson Square

August 23, 2019 Summer Student Research Day **UBC** Robson Square

Fridays | 11:30 am **HLI Friday Seminar Series** Gourlay Conference Room St. Paul's Hospital

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Centre for Heart Lung Innovation (HLI)

HLI HEADLINE

HLI investigator leads blood test policy change in BC

As of 2019, fasting is no longer required for lipid blood tests in BC. This policy change was spearheaded by HLI lipid investigator, Dr. Gordon Francis, and both positively impacts patient experience and better informs clinicians. The non-fasting results are better predictors of heart disease, stroke, and overall mortality. Dr. Francis was interviewed on this subject by Global TV, City TV, and the Canadian Press.



RESEARCH REPORTS

Characterizing molecular changes in newborns

Published in Nature Communications, HLI and PROOF researchers co-led a study with Boston's Children's Hospital to molecularly phenotype newborns in their first week of life. The researchers successfully extracted transcriptomic, proteomic, metabolomic, cytokine/chemokine, and single cell immune phenotyping data from <1 mL of blood. Using innovative integrative computational methods, the study characterized key molecular changes in newborns and discovered that two independent cohorts of newborns shared a common developmental trajectory. This publication was co-first authored by PROOF Computational Biologist, Casey Shannon, co-authored by HLI trainees, Daniel He and Dr. Amrit Singh, and co-senior authored by HLI investigator, **Dr. Scott Tebbutt**.

A novel approach to identify at-risk COPD patients

Drs. Dragos Vasilescu, Tillie Hackett, and James Hogg at HLI and collaborators in the United States and Japan have validated a novel non-invasive imaging biomarker that identifies airway damage in the smallest airways in the lung. This novel technique can identify at-risk COPD patients before symptoms arise and offer new insights for the development of COPD and other lung diseases. This work was published in the American Journal of Respiratory and Critical Care Medicine and was made possible by an ultra-high resolution micro CT scanner at HLI and a unique software developed by the team.

STAFF SPOTLIGHT



Dragos M. Vasilescu, PhD Research Associate | Hogg Lab Associate Director | Cellular Imaging and Biophysics Core

Research Interests:

- visualization and quantification of 3D lung structures
- understanding the pathogenesis of lung disease
- development of image processing and analysis tools

CONGRATULATIONS! Faculty and Trainee Achievements

Dr. Liam Brunham CIHR Project Grant

Dr. Pat Camp CIHR Operating Grant: Transitions in Care

Dr. Andrew Krahn Rare Disease Foundation: Innovative Therapies Program

Dr. Gurpreet Singhera Michelle Harkness Mentorship Award | AllerGen National Research Conference Poster Award

Mitacs Accelerate (supervisors)
Dr. Tillie Hackett | Dr. Ma'en Obeidat | Dr. Pascal Bernatchez | Dr.
Don Sin

Cystic Fibrosis Canada Joint Research and Clinical Fellowship Dr. Grace Lam

ASIP Trainee Travel Award
Dr. Paul Hanson

ASPET Travel Award Arash Tehrani

BIG 2019 Research Day Poster Award Al Rohet Hossain

COMMUNITY CONNECTIONS

HLI tours Aurora Biomed



A team of HLI staff and researchers were recently invited to tour Aurora Biomed, a local company with a team of 30 personnel and over 25 years of expertise in designing and developing customizable lab automation solutions. Our hosts, Director of Marketing, Sophia Liang MBA, and Product Specialist, Grant McNair PhD, demonstrated their flagship high throughput automated liquid handling instru-

ment, the Versa 1100 Workstation, and showcased their patented technologies. Aurora Biomed was founded as a UBC spin-off company and belong to an esteemed group of longstanding, Vancouver-based biotech companies.

Training surgeons in Uganda

The Division of Otolaryngology at St. Paul's Hospital, under the guidance of Dr. Brian Westerberg, has been involved in outreach programs in Uganda for well over a decade. In January, HLI investigator, **Dr. Andrew Thamboo**, together with

Dr. Gigi Osler, current President of the Canadian Medical Association, visited Mbarara University of Science and Technology (MUST) in Uganda. They gave multiple lectures and spent a considerable amount of time doing hands on dissection with participants from Uganda, Somolia, Kenya, Nigeria, and Ethiopia. Through this well-received course, ENT doctors will likely begin performing endoscopic sinus surgery in Africa. This is Dr. Thamboo's second trip to Mbarara and he looks forward to another visit in January 2020.



HLI celebrates Pink Shirt Day



HLI researchers and staff came out in record attendance and in various shades of pink to support Pink Shirt Day, on February 27th, 2019. This worthy event was initiated in 2007 in Berwick, Nova Scotia, and has since become an international campaign raising anti-bullying awareness in schools and in the workplace.

FACULTY FEATURE



Andrew Thamboo, MD, FRCSC, MHSC
Clinical Assistant Professor | UBC Department of Surgery
Research Director | St. Paul's Sinus Centre

Research Interests:

- understanding the connection between upper and lower airways
 - understanding the extent of surgery required for non-disease sinus tissues
 - personalized medicine