



**The O'Brien Institute for Public Health &  
the Department of Community Health Sciences present:**

**Calibrate, Good Times - Come on!**

**A Tutorial on Developing and Assessing Clinical Prediction Models with Applied Examples**

**Speakers: Devon Boyne & Darren Brenner**

**Friday, November 16, 2018 - 12:00 to 12:50 p.m.  
G500 - Health Sciences Centre, 3330 Hospital Dr NW**

Clinical prediction models are health technologies that allow one to estimate an individual's probability of having or of developing a condition of interest. Despite the proliferation of clinical prediction model studies, multiple systematic reviews have noted methodologic shortcomings in this area of research. The purpose of this presentation is to provide an overview of the steps involved in developing and assessing the performance of a clinical prediction model. Applied examples regarding the screening and treatment of colorectal cancer will be presented and strategies for avoiding common pitfalls will be discussed.

Devon Boyne is a Doctoral Candidate in the Department of Community Health Sciences at the University of Calgary. He holds an M.Sc. degree in Epidemiology from Queen's University and a Certificate in Data Analysis from the SAS Institute. His research interests include the development and validation of clinical prediction models and the identification of optimal dynamic treatment regimes using real-world evidence. In addition to having several peer-reviewed publications in oncology, Devon has helped to teach numerous graduate-level courses in quantitative epidemiology and biostatistics. Devon is also a classically trained pianist and he enjoys running and playing the piano in his spare time.

Darren Brenner is an Assistant Professor in Oncology and Community Health Sciences and a Research Scientist in the Department of Cancer Epidemiology and Prevention Research of Alberta Health Services. He holds the Armstrong Investigatorship in Molecular Epidemiology at the University of Calgary and a Canadian Cancer Society Research Early Career Award in Cancer Prevention. Darren currently serves as the Academic Advisor on the Canadian Cancer Society's Canadian Cancer Statistics Committee. His research is focused on addressing important questions regarding epidemiologic trends in colorectal, breast and lung cancers using molecular epidemiology and causal inference approaches.

**Objectives:**

1. Introduce prediction models and their application within clinical settings
2. Overview the three types of clinical prediction model studies
3. Describe and contrast measures of discrimination and calibration

**This event is a self-approved group learning activity (Section 1) as defined by the Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada. This seminar is also available via an online AdobeConnect session:** To attend the seminar from another location via your computer, click on this link:

<https://connectmeeting.ucalgary.ca/oiph-nov16-18/>



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Enter as a guest. You may join the session at any time. It is advisable to test your audio before the seminar starts. The AdobeConnect session will be archived and accessible for later viewing at:  
<https://www.obrieniph.ucalgary.ca/events/chsobrien-institute-seminar-series>