

# Harlan Campbell, PhD.

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## EDUCATION

University of British Columbia, PhD - Statistics Supervisor: Prof. Paul Gustafson	Sept, 2015 - June, 2019
Simon Fraser University, Master of Science - Statistics Supervisor: Prof. Charmaine Dean	Sept, 2009 - Dec, 2011
McGill University, Bachelor of Science - Mathematics Minor concentration in music	Sept, 2004 - Dec, 2008

## EMPLOYMENT

<b>Postdoctoral Research Fellow</b> Funding provided by ReCoDID (EU Horizon 2020, CIHR) and the WHO	July, 2019 -
<b>EMMES Canada CRO</b> –Statistician Providing statistical services as a partner to clinicians and scientists	July, 2012 - Oct, 2017
<b>Cardiome Pharma</b> –Statistics Intern	Sept - Dec, 2011
<b>Independent Environmental Consulting</b> Clients include: Taking Root (2015 - 2017) SFU Glaciology Research (2015) Culex Environmental (2011 - 2012)	

## TEACHING

<b>Instructor</b> – UBC Dept. of Statistics Teaching (and coordinator) of STAT 306 for 145 undergraduates. <a href="#">link</a>	Jan - May, 2018
<b>Graduate Teaching Assistant</b> – UBC Dept. of Statistics Teaching, grading, and coordinating labs for SCIE 300 and STAT 404	2017 - 2018
<b>Graduate Teaching Assistant</b> – SFU Dept. of Statistics and Actuarial Science Teaching and grading for various courses	2009 - 2010

## RESEARCH

### Statistics Publications

1. The world of research has gone berserk: modeling the consequences of requiring “greater statistical stringency” for scientific publication, H Campbell and P Gustafson, accepted to The American Statistician, special issue on Statistical Inference in the 21st Century, 73.sup1 (2019): 358 - 373. [link](#)

2. Is it even rainier in North Vancouver? A non-parametric rank-based test for semicontinuous longitudinal data, H Campbell, *Journal of Applied Statistics*, 46:7 (2019): 1155 - 1176. [link](#)
3. The validity and efficiency of hypothesis testing in observational studies with time-varying exposures, H Campbell and P Gustafson, *Observational Studies*, (2018). [link](#)
4. Conditional equivalence testing: an alternative remedy to publication bias, H Campbell and P Gustafson, *PLoS ONE* 13(4): e0195145 (2018). [link](#)
5. Twin data that made a big difference, and that deserve to be better-known and used in teaching, H Campbell, JA Hanley, *Journal of Statistical Education*, 25.3 (2017): 131-136. [link](#)
6. The consequences of proportional-hazards based model selection, H Campbell and CB Dean, *Statistics in Medicine*, 33.6, (2014): 1042-1056. [link](#)
7. Model-based clustering of longitudinal data: application to modeling disease course and gene expression trajectories, A Ciampi, H Campbell, A Dyachenko, B Rich, J McCusker, and MG Cole, *Communications in Statistics-Simulation and Computation*, 41.7 (2012): 992-1005. [link](#)

### Applied Publications

1. Comparison of hemoglobin A1c results based on at-home and in-lab dried blood spot sampling to routine venous blood sampling in-lab in adult patients with type 1 or type 2 diabetes, TG Elliott, KC Dooley, M Zhang, H Campbell, DJS Thompson, *Canadian Journal of Diabetes*, 42.4 (2018): 426-432.e1. [link](#)
2. Sleep assessments for a mild traumatic brain injury trial in a military population, JM Walker, NT James, H Campbell, SH Wilson, S Churchill, LK Weaver, *Undersea and Hyperbaric Medicine Journal*, 43.5, (2016). [link](#)
3. Comparison of reducing epicardial fat by exercise, diet or bariatric surgery weight loss strategies: A systematic review and meta-analysis, S Rabkin and H Campbell, *Obesity Reviews*, 16.5 (2015): 406-415. [link](#)
4. Impact on diabetes care of access to an online patient portal, M Lau, H Campbell, T Tang, DJS Thompson, and T Elliott, *Canadian Journal of Diabetes*, 38.1 (2014): 17-21. [link](#)
5. Modelling factors that affect the presence of larval mosquitoes (diptera: culicidae) in stormwater drainage systems to improve the efficacy of control programmes, MJ Jackson, JL Gow, MJ Evelyn, TJS McMahon, H Campbell, J Sheppard, TJ Howay, D Fladmark, A Thielman, *The Canadian Entomologist*, 145.06 (2013): 674-685. [link](#)
6. An evaluation of the effectiveness of a commercial mechanical trap to reduce abundance of adult nuisance mosquito populations, MJ Jackson, JL Gow, MJ Evelyn, TJS McMahon, TJ Howay, H Campbell, J Blancard, and A Thielman, *Journal of the American Mosquito Control Association*, 28.4 (2012): 292-300. [link](#)

## Working Papers

1. What to make of non-inferiority and equivalence testing with a post-specified margin?, H Campbell and P Gustafson, submitted to the Biopharmaceutical Statistics, 2019. [link](#)
2. Can we disregard the whole model? Omnibus non-inferiority testing for  $R^2$  in multivariable linear regression and  $\hat{\eta}^2$  in ANOVA., H Campbell and D Lakens, submitted to the British Journal of Mathematical and Statistical Psychology, 2019. [link](#)
3. The consequences of checking for overdispersion and zero-inflation, H Campbell, submitted to Methods in Ecology and Evolution. [link](#)
4. Equivalence testing for standardized effects in linear regression, H Campbell, in preparation for submission to British Journal of Mathematical and Statistical Psychology. [link](#)
5. Measurement error in individual participant data meta-analysis - a Bayesian framework for continuous outcome data, H Campbell and P Gustafson, working draft with ReCoDID team.
6. A critical assessment of the Bayes Factor Registered Reports policy, H Campbell, S Goodman, and P Gustafson, working draft.
7. Evidence over precision? Investigating the meta-analytic value of research studies, H Campbell, TD Stanley, H Doucouliagos, JPA Ioannidis, working draft.
8. Improving Registered Reports: the case for incorporating conditional equivalence testing, H Campbell and P Gustafson, working draft.

## Presentations

If Journals Embraced Conditional Equivalence Testing, Would Research be Better?  
Invited Seminar

- Department of Statistics and Actuarial Science, University of Waterloo, Jan. 30, 2019
- Mathematics Department, Reed College, Feb. 26, 2019
- Department of Mathematics and Statistics, University of Ottawa, Apr. 17, 2019

Can we disregard the whole model? Omnibus non-inferiority testing for  $R^2$  in multivariable linear regression and  $\hat{\eta}^2$  in ANOVA., H Campbell and D Lakens; The 47th Annual Meeting of the Statistical Society of Canada, Calgary, 2019.

Conditional equivalence testing, H Campbell, P Gustafson; The 46th Annual Meeting of the Statistical Society of Canada, Montreal, 2018. Invited talk.

What to make of non-inferiority and equivalence testing with a post-specified margin?, H Campbell; Joint Statistical Meetings (JSM), Vancouver, 2018.

A non-parametric rank based test for semicontinuous longitudinal data, H Campbell; The 44th Annual Meeting of the Statistical Society of Canada, St. Catharines, 2016.

The consequences of proportional-hazards based model selection, H Campbell, CB Dean; The Society for Clinical Trials 34th Annual Meeting, Boston, 2013.

Survival analysis of British Columbia wildland fires, H Campbell, CB Dean; GEOIDE Forestry Virtual Meeting, 2011.

Data visualization in R, H Campbell, SFU-UBC Joint Graduate Student Workshop in Statistics, Vancouver, 2011.

## SERVICE & AWARDS

### Leadership:

Organizer of the Constance van Eeden seminar (2017 and 2018). [link](#)

### Peer Review:

Nature Human Behaviour  
Statistical Methods & Applications  
Journal of Applied Statistics  
Journal of Statistical Education  
Canadian Journal of Diabetes  
Journal of Statistical Computation and Simulation  
Obesity Reviews

### Awards:

2019 Marshall Prize from UBC Statistics for “great distinction according to the professional and academic criteria.” [link](#)