

Kevin McGregor — Curriculum Vitae

CONTACT INFORMATION kevin.mcgregor@mail.mcgill.ca

RESEARCH INTERESTS Statistical genetics, analysis of microbiome data, epigenomics, high-dimensional data

EDUCATION **McGill University**, Montréal, QC

Ph.D., Biostatistics, *Expected*: Summer 2019

- Thesis Topic: *A penalized approach to estimating network changes in the human microbiome*
- Supervisors: Celia M.T. Greenwood, Ph.D. and Aurélie Labbe, Ph.D.

M.Sc., Biostatistics, November 2015

- Topic: *Methods for estimating changes in DNA methylation in the presence of cell type heterogeneity*
- Supervisors: Aurélie Labbe, Ph.D. and Celia M.T. Greenwood, Ph.D.

University of Saskatchewan, Saskatoon, SK

B.Sc. (Hons), Statistics, June 2013

- *Graduated with high honours*

RESEARCH EXPERIENCE **Undergraduate Research Assistant** May 2011 - August 2013
Department of Mathematics and Statistics,
University of Saskatchewan
Supervisors: Christine Soteros, Ph.D., and Michael Szafron, Ph.D.

- REFEREED JOURNAL PUBLICATIONS
1. Arabzadeh, Azadeh, **Kevin McGregor**, Valérie Breton, Lauren Van Der Kraak, Uri David Akavia, Celia MT Greenwood, and Nicole Beauchemin. “EphA2 signaling is impacted by carcinoembryonic antigen cell adhesion molecule 1-L expression in colorectal cancer liver metastasis in a cell context-dependent manner.” *Oncotarget* 8, no. 61 (2017): 104330.
 2. **Kevin McGregor**, Sasha Bernatsky, Ines Colmegna, Marie Hudson, Tomi Pastinen, Aurélie Labbe, Celia MT Greenwood (2016). An evaluation of methods correcting for cell type heterogeneity in DNA methylation studies. *Genome Biology*, 2016 17(84).
 3. Azadeh Arabzadeh, Jeremy Dupaul-Chicoine, Valerie Breton, Sina Haftchenary, Sara Yumeen, Claire Turbide, Maya Saleh, **Kevin McGregor**, Celia M T Greenwood, Uri David Akavia, Richard S Blumberg, Patrick T Gunning, Nicole Beauchemin (2015). Carcinoembryonic Antigen Cell Adhesion Molecule 1 long isoform modulates malignancy of poorly differentiated colon cancer cells. *Gut*, gutjnl-2014.
 4. Cheston, M. A., **McGregor, K.**, Soteros, C. E., Szafron, M. L. (2014). New evidence on the asymptotics of knotted lattice polygons via local strand-passage models. *Journal of Statistical Mechanics: Theory and Experiment*, 2014(2), P02014.

- PUBLICATIONS IN REVISION OR SUBMITTED
1. Howard Steiger, Linda Booij, Esther Kahan, **Kevin McGregor**, Lea Thaler, Aurelie Labbe, Ridha Joobor, Mimi Isral, Moshe Szyf, Luis B. Agellon, Emilie Fletcher, Lise Gauvin, Annie St-Hilaire, Erika Rossi. A longitudinal, epigenomewide study of DNA methylation in Anorexia Nervosa: Results in actively ill, partially weight restored, long-term remitted, and non-eating-disordered women *Submitted to Journal of Psychiatry and Neuroscience*.

CORRESPONDENCE	<ol style="list-style-type: none"> 1. Chloé Anderson, Kevin McGregor, and James A. Hanley. Cranberry Capsules for Bacteriuria Plus Pyuria in Nursing Home Residents. <i>Letter to the editor of JAMA - March 2017</i> 2. Kevin McGregor, Aurélie Labbe, and Celia M.T. Greenwood. Response to: Correcting for cell-type effects in DNA methylation studies: reference-based method outperforms latent variable approaches in empirical studies. <i>Correspondence in Genome Biology - January 2017</i>
TEACHING EXPERIENCE	<p>Instructor</p> <ul style="list-style-type: none"> • <i>EPIB 521 Regression Analysis for Health Sciences</i> Jan-Apr 2018 Department of Epidemiology, Biostatistics, and Occupational Health McGill University • <i>Seminar Series in Biostatistics (5 lectures)</i> Sept-Oct 2017 Lady Davis Institute for Medical Research Montréal, Québec <p>Teaching Assistant</p> <ul style="list-style-type: none"> • <i>EDPE 676 — Intermediate Statistics</i> Fall 2015, 2016 Department of Educational and Counselling Psychology, McGill University <p>Grader</p> <ul style="list-style-type: none"> • <i>STAT 100 — Elementary Statistics for Applications</i> Winter 2013 University of Regina (Saskatoon Campus) <p>Help Desk Advisor</p> <ul style="list-style-type: none"> • Computer Science Help Desk May-June 2010 Department of Computer Science, University of Saskatchewan
REVIEWER WORK	<ul style="list-style-type: none"> • Article co-reviewed for Genome Biology 2017 • Article reviewed for International Journal of Epidemiology 2017
OTHER ACADEMIC ACTIVITIES	<ul style="list-style-type: none"> • Local Arrangement Chair June 2018 Canadian Statistics Student Conference Statistical Society of Canada • Biostatistics Academic Representative 2017-18 Department of Epidemiology, Biostatistics, and Occupational Health McGill University • Biostatistics Academic Representative 2016-17 Department of Epidemiology, Biostatistics, and Occupational Health McGill University • Co-organized successful CANSSI Distinguished Visitor application March 2017 Department of Epidemiology, Biostatistics, and Occupational Health McGill University Speaker: Hilary Parker Ph.D.
OTHER PROJECTS	<p>Statistical analysis for master's thesis in Educational Psychology July 2017</p> <ul style="list-style-type: none"> • Project on parental attachment measures in homeless youth in Montréal. <p>Statistical analysis for master's thesis in Educational Psychology May 2017</p> <ul style="list-style-type: none"> • Project on employment outcomes for former students of the Summit School in Montréal. <p>Statistical analysis for pilot study in Emergency Medicine Sept 2016</p> <ul style="list-style-type: none"> • Study title: <i>The utility of repeat head imaging in patients with a traumatic intracranial hemorrhage and GCS 15</i>

	Statistical analysis for master's thesis in Educational Psychology	July 2016
	<ul style="list-style-type: none"> • Thesis title: <i>Medical Simulation: Guided Observation versus Active Participation: is there a Difference in Learning Outcomes?</i> 	
AWARDS	Travel Awards	
	<ul style="list-style-type: none"> • 2017 Microbiome Summer School: Big Data Analytics for Omcis Science (All conference expenses covered) 	2017
	<ul style="list-style-type: none"> • Workshop on Statistical Issues in Biomarkers and Drug Co-Development (\$500) 	2014
	Awards — McGill University	
	<ul style="list-style-type: none"> • FRQS Doctoral award (\$21,000/year) 	2018-2020
	<ul style="list-style-type: none"> • Faculty of Medicine Internal Studentship (\$12,000) 	2017
	<ul style="list-style-type: none"> • Faculty of Medicine Internal Studentship (\$12,000) 	2016
	<ul style="list-style-type: none"> • Graduate excellence award Ph.D. (\$10,000) 	2015
	<ul style="list-style-type: none"> • Graduate excellence award M.Sc. (\$4,000) 	2013
	Awards — University of Saskatchewan	
	<ul style="list-style-type: none"> • Most Outstanding Graduate in Statistics 	2013
	<ul style="list-style-type: none"> • Dean's List 	2013
	<ul style="list-style-type: none"> • Honours Scholarship (\$1500) 	2013
	<ul style="list-style-type: none"> • Saskatchewan Curling Association Athlete Assistance Award (\$1100) 	2009
	<ul style="list-style-type: none"> • Edgar Alexander Garton Scholarship (\$1000) 	2009
	<ul style="list-style-type: none"> • Entrance Scholarship (\$3000) 	2008
	Other Awards	
	<ul style="list-style-type: none"> • Statistical Society of Canada Student Conference Award for best undergraduate poster (co-authored with Marla Cheston) 	2013
PRESENTATIONS	Contributed talks:	
	<ul style="list-style-type: none"> • Statistical Society of Canada Annual Meeting, Montréal QC 	Jun 2018
	<ul style="list-style-type: none"> • (Bio)Statistics Student Research and Career Day, McGill University 	Sept 2017
	<ul style="list-style-type: none"> • Statistical Society of Canada Annual Meeting, Winnipeg MB 	Jun 2017
	<ul style="list-style-type: none"> • 4th Annual Human and Statistical Genetics Meeting, Vancouver, BC 	Apr 2015
	Posters	
	<ul style="list-style-type: none"> • Causal Challenge, Workshop on Statistical Causal Inference and Applications to Genetics, Montréal, QC 	Jul 2016
	<ul style="list-style-type: none"> • EBOH 50th anniversary conference, Montréal, QC 	Apr 2015
	<ul style="list-style-type: none"> • 4th Annual Human and Statistical Genetics Meeting, Vancouver, BC 	Apr 2015
	<ul style="list-style-type: none"> • Workshop on Statistical Issues in Biomarker and Drug Co-development Fields Institute, Toronto, ON 	Nov 2014
	<ul style="list-style-type: none"> • Statistical Society of Canada Annual Meeting Case Study Competition, Toronto, ON 	May 2014
	<ul style="list-style-type: none"> • Statistical Society of Canada Student Conference Student poster competition, Edmonton, AB 	May 2013
	Journal Club Presentations	
	<ul style="list-style-type: none"> • McGill Statistical Genetics Journal Club, Montréal QC 	Jan 2015
	<ul style="list-style-type: none"> • McGill Statistical Genetics Journal Club, Montréal QC 	Aug 2014