Gabriela Cohen Freue

Contact Information

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Education

Postdoctoral Fellow	University of British Columbia, 2005-2007 Statitical Proteomics, Department of Statitics Biomarkers in Transplantation
Ph.D.	University of Maryland at College Park, 1999-2004 Statistics, Department of Mathematics
B.Sc	Universidad de Buenos Aires, 1994-1998 Mathematical Education, Department of Mathematics

Employment

Assistant Professor	University of British Columbia, 2012-present Statitical Genomics, Department of Statitics Canada Research Chair, Tier II
Research Associate	University of British Columbia, 2008-2012 Statitical Proteomics, Department of Statitics NCE CECR Prevention of Organ Failure Centre of Excellence
Instructor	University of Maryland at College Park, 2001-2003 Department of Mathematics
Teaching Assistant	University of Maryland at College Park, 1999-2000 Department of Mathematics
Teaching Assistant	Universidad de Buenos Aires, 1993-1998 Department of Mathematics

Leaves of Absences

Maternity leaves: September 2004-September 2005, and January 2007-September 2008

Research Interest

My research work is interdisciplinary merging components from mathematical statistics, genomics and medical sciences. In particular, I am interested in developing new statistical methods that are robust to outliers and feasible for the anlaysis of high-dimensional datasets usually encountered in genomics and protoemics studies. I am currently working on extensions of classical estimation approaches to address problems related to data science and the analysis of big data, e.g, sparsity, measurement errors, confounding factors, collinearity. I have published both methodological and applied work related with these areas of study. I collaborate in different interdisciplinary research projects, including proteomics in multiple sclerosis, proteomics in cardiovascular diseases, and –omics in asthmatic patients, among others.

Referred Publications

Additional notes about impact and authorship contribution are added to selected articles. Unless otherwise specified, the citation convention is that the most significant contributor appears first and the senior author last in multi-authored publications. The name of students that work under my supervision are underlined.

a) work submitted

Mandeep Takhar, Mayu Sasaki, Zsuzsanna Hollander, W. Robert McMaster, Raymond T. Ng, **Gabriela Cohen Freue**. PGCA: A New Algorithm to Link Protein Groups Created from MS/MS Data. Submitted to *PLoS One* on September 23rd, 2016. Invited to revise and resubmit before February 28th, 2017. **Senior author.**

Nikolaus Fortelny , Christopher Overall , Paul Pavlidis, **Gabriela V. Cohen Freue**. Pitfalls in protein prediction from mRNA. Submitted to *Nature* on March 16th, 2016. Resubmitted on November 2nd, 2016. **Senior author.**

Daisuke Ennishi, Ali Bashashati, Saeed Saberi, Christoffer Hother, Anja Mottok, Merrill Boyle, Barbara Meissner, Pedro Farinha, Graham Slack, Susana Ben Neriah, Daniel Lai, Allen Zhang, Hennady Shulha, Fong Chun Chan, Robert Kridel, Derek Chiu, Sara Mostafavi, **Gabriela Cohen Freue**, Alina Gerrie, Diego Villa, Laurie Sehn, Kerry Savage, Andrew Mungall, Ryan Morin, Joseph Connors, Christian Steidl, Marco Marra, Sohrab Shah, Randy Gascoyne, David Dominguez-Sola. Cell of origin-specific genetic alterations and chromosomal instability have therapeutic and immunologic impact in diffuse large B-cell lymphoma. Submitted to *Nature Communications* on December 2nd, 2016. Invited to revise and resubmit. Contributed with one of the statistical methodologies and analysis in the paper.

Singh, Amrit, Shannon, Casey, Kim, Young Woong, Yang, Chen Xi, Balshaw, Robert, **Cohen Freue, Gabriela**, Gauvreau, Gail, FitzGerald, J Mark, Boulet, Louis-Philippe, O'Byrne, Paul, Tebbutt, Scott. Novel blood-based transcriptional biomarker panels predict the late phase asthmatic response. *American Journal of Respiratory and Critical Care Medicine.* Submitted on January 13th, 2017.

b) 2012-present: 228 citations in Google Scholar

Tremlett H, Dai DLY, Hollander Z, Kapanen A, Aziz T, Wilson-McManus JE, Tebbutt SJ, Borchers CH, Oger J, **Cohen Freue GV**. (2015) Serum proteomics in multiple sclerosis disease progression, *Journal of Proteomics* **118**, 2-11.

NOTE: As the principal investigator and senior author in this paper, my role was to lead this collaboration with Dr. Tremlett's group. Further, I designed and supervised the proteomics experiment, directed and supervised the statistical analysis conducted by Darlene Dai (UBC MSc student in Statistics), wrote several sections of the manuscript, and led the revision process. Cited 5 times (Google Scholar, January 25th, 2017).

Hollander Z, Lazarova M, Lam KKY, Ignaszewski A, Oudit GY, Dyck J, Schreiner G, Pauwels J, Chen V, **Cohen Freue GV**, Ng RT, Wilson-McManus J, Balshaw R, Tebbutt S, McMaster R, Keown PA, McManus BM. (2014) Proteomic Biomarkers of Recovered Heart Function. *Eur J Heart Fail.* **5**, 551-559.

Gabriela Cohen Freue, Hernan Ortiz Molina, and Ruben H. Zamar. (2013) A Natural Robustification of the Ordinary Instrumental Variables Estimator. *Biometrics* **69**, 641-650.

NOTE: An R-package to apply the proposed estimator is available in CRAN (riv). I was the main contributor to methodology, analysis and manuscript preparation. *Biometrics* is a top-journal in Statistics. The paper has been cited 8 times (Google Scholar, January 25th, 2017).

Gabriela V. Cohen Freue, Anna Meredith, Derek Smith, Axel Bergman, Mayu Sasaki, Karen K.Y. Lam, Zsuzsanna Hollander, Nina Opushneva, Mandeep Takhar, David Lin, Janet Wilson-McManus, Robert Balshaw, Paul Kewon, Christoph H. Borchers, Bruce McManus, Raymond T. Ng, W. Robert McMaster. (2013) Computational biomarker pipeline from discovery to clinical implementation: plasma proteomic biomarkers for cardiac transplantation. *PLoS Computational Biology* **9**(4): e1002963.

NOTE: I developed the computational pipeline proposed in the manuscript, performed the statistical analysis of the case studies, and wrote most of the manuscript. *PLoS Computational Biology* is an open-access, peer-reviewed, and leading journal in the field (impact factor 4.6). Cited 16 times (Google Scholar, January 25th, 2017).

Lin D[#], **Cohen Freue G**[#], Hollander Z, Mancini GBJ, Sasaki M, Mui A, Wilson-McManus J, Ignaszewski A, Imai C, Meredith A, Balshaw R, Ng RT, Keown PA, McMaster R, Carere R, Webb JG, McManus BM. (2013) Plasma protein biosignatures for detection of cardiac allograft vasculopathy. *The Journal of Heart and Lung Transplantation* **7**, 723-733. [#]Equal contributors.

NOTE: I am a first author, jointly with David Lin. I have conducted all the statistical analysis, wrote and supervised many sections of the paper. Cited 13 times (Google Scholar, January 25th, 2017).

Hollander Z, Chen V, Lin D, Ng R.T., Balshaw R, **Cohen Freue G**, Ignaszewski A, Imai C, Kaan A, Wilson-McManus J, McMaster R, Keown P, McManus BM. (2013) Predicting acute cardiac allograft rejection using donor and recipient gene expression. *J Heart Lung Transplant* **32**, 259-65.

Oliver P. Günther, Virginia Chen, **Gabriela Cohen Freue**, Robert F. Balshaw, Scott. J. Tebbutt, Zsuzsanna Hollander, Mandeep Takhar, W. Robert McMaster, Bruce M. McManus, Paul A. Keown, Raymond T. Ng. (2012) A computational pipeline for the development of multi-marker biosignature panels and ensemble classifiers. *BMC Bioinformatics* **13**:326.

NOTE: I developed and wrote the section of the pipeline and manuscript related to proteomics. Cited 7 times (Google Scholar, January 25th, 2017).

Singh, Amrit; **Cohen-Freue, Gabriela**; Oosthuizen, Jean; Kam, Sarah; Ruan, Jian; Takhar, Mandeep; Gauvreau, Gail; O'Byrne, Paul; Fitzgerald, Mark; Boulet, Louis-Philippe; Borchers, Christoph; Tebbutt, Scott. (2012) Plasma proteomics can discriminate isolated early from dual responses in asthmatic individuals undergoing an allergen inhalation challenge. *Proteomics Clinical Applications* **6**, 476-485.

NOTE: Amrit Singh and Mandeep Takhar worked under my supervision on the statistical analysis of the paper. Cited 10 times (Google Scholar, January 25th, 2017).

Dominik Domanski, Andrew J. Percy, Juncong Yang, Andrew G. Chambers, John S. Hill, **Gabriela V. Cohen Freue**, and Christoph H. Borchers. (2012) MRM-based Multiplexed Quantitation of 67 Putative Cardiovascular Disease Biomarkers in Human Plasma. *Proteomics* **12***,* 1222-1243.

Dominik Domanski[#], **Gabriela V. Cohen Freue**[#], Luis Sojo, Michael A. Kuzyk, Leslie Ratkay, Carol E. Parker, Y. Paul Goldberg, and Christoph H. Borchers. (2011) The Use of Multiplexed MRM for the Discovery of Biomarkers to Differentiate Iron-deficiency Anemia from Anemia of Inflammation. *Journal of Proteomics* JPROT-D-11-00502. [#]Equal contributors.

NOTE: Cited 12 times (Google Scholar, January 25th, 2017).

Gabriela V. Cohen Freue and Christoph H. Borchers. (2012) Multiple Reaction Monitoring (MRM) – Principles and Application to Coronary Artery Disease. *Circulation: Cardiovascular Genetics* **5**, 378.

NOTE: We were invited to write this paper. Cited 18 times (Google Scholar, January 25th, 2017).

c) Before 2012: 522 citations in Google Scholar.

David Lin, Zsuzsanna Hollander, Anna Meredith, Ellamae Stadnick, Mayu Sasaki, **Gabriela Cohen Freue**, Pooran Qasimi, Alice Mui, Raymond T. Ng, Robert Balshaw, Janet E. Wilson-McManus, David Wishart, David Hau, Paul A. Keown, Robert McMaster, Bruce M. McManus. (2011) Molecular Markers of End-stage Heart Failure. *Journal of Cardiac Failure* **17**, 867-874.

Dominik Domanski, Derek S. Smith, Christine A. Miller, Yanan Yang, Angela M. Jackson, **Gabriela Cohen Freue**, John S. Hill, Carol E. Parker, Christoph H. Borchers. (2011) High-Flow Multiplexed MRM-Based Analysis of Proteins in Human Plasma Without Depletion or Enrichment. *Clinics in Laboratory Medicine* **31**, 371-384.

Bobak Heydari, Jonathon Leipsic, G.B. John Mancini, James K. Min, Troy LaBounty, C. Taylor, **Gabriela V. Cohen Freue**, Brett Heilbron. (2011) Diagnostic Performance of High Definition Coronary Computed Tomography Angiography Performed with Multiple Radiation Dose Reduction Strategies. *Canadian Journal of Cardiology* **27**, 606-612.

Gabriela V. Cohen Freue, Mayu Sasaki, Anna Meredith, Oliver P. Günther, Axel Bergman, Mandeep Takhar, Alice Mui, Robert F. Balshaw, Raymond T. Ng, Nina Opushneva, Zsuzsanna Hollander, Guiyun Li, Christoph H. Borchers, Janet Wilson-McManus, Bruce M. McManus, Paul A. Keown, W. Robert McMaster. (2010) Proteomic signatures in plasma during early acute renal allograft rejection. *Mol Cell Proteomics* **9** 1954-1967.

> **NOTE:** MCP is the top Journal in Proteomics (impact factor of 8.35). Cited 64 times (Google Scholar, January 25th, 2017).

Hollander, Zsuzsanna; Lin, David; Chen, Virginia; Ng, Raymond; Wilson-McManus, Janet; Ignaszewski, Andrew; **Cohen Freue, Gabriela**; Balshaw, Rob; Mui, Alice; McMaster, Robert; Keown, Paul A.; McManus, Bruce M. (2010) Whole Blood Biomarkers of Acute Cardiac Allograft Rejection: Double-Crossing the Biopsy. *Transplantation* 90, 1388-93.

Günther, Oliver P.; Balshaw, Robert F.; Scherer, Andreas; Hollander, Zsuzsanna; Mui, Alice; Triche, Timothy J.; Freue, **Gabriela Cohen**; Li, Guiyun; Ng, Raymond T.; Wilson-McManus, Janet; McMaster, W Robert; McManus, Bruce M.; Keown, Paul A. (2009) Functional Genomic Analysis of Peripheral Blood During Early Acute Renal Allograft Rejection. *Transplantation* 88, 942-951.

David Lin, Zsuzsanna Hollander, Raymond T. Ng, Carol Imai, Andrew Ignaszewski, Robert Balshaw, **Gabriela Cohen Freue**, Janet E. Wilson-McManus, Pooran Qasimi, Anna Meredith, Alice Mui, Tim Triche, Robert McMaster, Paul A. Keown, Bruce M. McManus. (2009) Whole blood genomic biomarkers of acute cardiac allograft rejection. *Journal of Heart and Lung Transplantation* **28**, 927-935.

Gabriela V. Cohen Freue, Zsuzsanna Hollander, Enqing Shen, Ruben H. Zamar, Robert Balshaw, Andreas Scherer, Bruce McManus, Paul Keown, W. Robert McMaster, and Raymond T. Ng. (2007) MDQC: a new quality assessment method for microarrays based on quality control reports. *Bioinformatics* **23**, 3162-3169.

> **NOTE:** I proposed and developed a new quality assessment method for microarrays, performed the statistical analysis of the cases, and wrote most of the manuscript. RTN was the senior author. *Bioinformatics* is a top-tier Journal in Bioinformatics with 5- years impact factor of 5.8. Cited 29 times (Google Scholar, January 25th, 2017) including citations in top journals (e.g., *Bioinformatics*, *Genomics*, *BMC Bioinformatics*, *Genomics*, *Proteomics & Bioinformatics*).

Gabriela V. Cohen Freue. "The Pitman Estimator of the Cauchy Location Parameter", *Journal of Statistical Planning and Inference* **137** (2007) 1900-1913.

> **NOTE:** Solo-authored paper. Cited 11 times (Google Scholar, January 25th, 2017).

Cohen-Freue, G; Holzer, TR; Forney, JD; McMaster, WR. (2007) Global Gene Expression in Leishmania. *International Journal for Parasitology* **37** (2007) 1077-1086.

NOTE: Cited 99 times (Google Scholar, January 25th, 2017).

Leifso, K; **Cohen-Freue, G**; Dogra, N; Murray, A; McMaster, WR. (2007) Genomic and Proteomic Expression Analysis of *Leishmania* Promastigote and Amastigote Life Stages: The *Leishmania* Genome is Constitutively Expressed. *Molecular and Biochemical Parasitology* **152**, 35-46.

NOTE: Cited 162 times (Google Scholar, January 25th, 2017).

Book Chapters

Mayrand-Chung, S., **Cohen Freue**, **G.V.,** and Hollander, Z. Models for Collaborations and Computational Biology. In: Ekins S, Hupcey MAZ, and Williams AJ, eds. (2011) *Collaborative Computational Technologies for Biomedical Research.* Willey, New Jersey.

Ohlund, L. B., Hardie, D. B., Elliott, M. H., Smith, D. S., Reid, J. D., **Cohen-Freue, G. V.**, bergman, A. P., Sasaki, M., Robertson, L., Balshaw, R. F., Ng, R. T., Mui, A., McManus, B. M., Keown, P. A., McMaster, W. R., Parker, C. E., and Borchers, C. H. Standard Operating Procedures and Protocols for the Preparation and Analysis of Plasma Samples using the iTRAQ Methodology. In: Aivanov, A., and Lazarev, A., eds. (2010) *Sample Preparation in Biological Mass Spectrometry*, Springer, New York.

Patents

Robert Balshaw; Gabriela Cohen Freue; Zsuzsanna Hollander; Paul Keown; David Lin; Bruce McManus; Robert McMaster; Raymond Ng; Janet Wilson-McManus. Methods of Diagnosing Chronic Cardiac Allograft Rejection (PCT/CA2009/000514). Date 4/9/2009

Robert Balshaw; Axel Bergman; Gabriela Cohen Freue; Zsuzsanna Hollander; Paul Keown; David Lin; Bruce McManus; Robert McMaster; Alice Mui; Raymond Ng; Pooran Qasimi; David Wishart. Methods of Diagnosing Acute Cardiac Allograft Rejection (PCT/CA2009/000516). Date 4/9/2009.

Robert Balshaw; Gabriela Cohen Freue; Oliver Gunther; Paul Keown; Bruce McManus; Robert McMaster; Anna Meredith; Alice Mui; Raymond Ng; Andreas Scherer. Methods of Diagnosing Rejection of a Kidney Allograft Using Genomic or Proteomic Expression Profiling (PCT/CA2009/000744).

Work in Progress

David Kepplinger, Matias Salibian-Barrera, and **Gabriela Cohen Freue**. PENSE: a Penalized Elastic Net S-Estimator. Fifty percent completed. Equal contributors.

Ash Anwar, Darlene DL Dai, Janet Wilson-McManus, Bruce McManus, Gordon Francis, John Hill, Christoph Borchers, and **Gabriela Cohen Freue**. MRM Mass Spectrometry for Biomarkers Discovery of Cardiovascular Diseases. Seventy percent completed. **Senior author.**

Hao Luo, Alexandre Bouchard-Côté, **Gabriela Cohen Freue**, Paul Gustafson. The Constrained Maximum Likelihood Estimation For Parameters Arising From Partially Identified Models. 95% completed. [pdf]

Most Recent Presentations

12/2012 Addressing Confounding Factors Problems with Instrumental Variables, The 10the International Chinese Statistical Association Conference, Shanghai, China.

08/2016 Sparse robust regression estimators. Computational Statistics, Oviedo, Spain, August 2016.

08/2016 Sparse robust regression estimators. Statistics Seminar, University of Buenos Aires, Buenos Aires, Argentina.

12/2016 PENSE: a Penalized Elastic Net S-Estimator. Statistics Seminar, University of Leuven, Leuven, Belgium.

10/2015 Discovery of Cardiovascular Disease Biomarkers in Human Plasma using MRM-MS. HUPO 14th Human Proteome Organization, Vancouver, British Columbia, Canada.

06/2015 Borrowing Information from Genomics Data to Boost Proteomics Discoveries, Annual Meeting of the Statistical Society of Canada, Halifax, Nova Scotia, Canada.

12/2014 PENSE: a Penalized Elastic Net S-Estimator. 7th International Conference of the ERCIM Working Group on Computing & Statistics, Pisa, Italy.

07/2014 From Protein Quantitation to Instrumental Variables Estimators. International Biometric Conference, Florence, Italy.

05/2014 Can Genomics Help to Fill the Gap Between Proteomics & Phenotypes? 3rd Annual Canadian Human and Statistical Genetics Meeting. Victoria, British Columbia, Canada.

02/2014 Proteomics: finding the (therapeutic) needle in the haystack? ENGAGE Heart + Lung FEST 2014, Vancouver, British Columbia, Canada.

12/2013 Pitman Estimators of the Cauchy Parameters. Seminar Series, Department of Statistics, University of Victoria, Victoria, British Columbia, Canada.

05/2013 Instrumental Variables Estimators to Address Measurement Errors in Proteomics. 2nd International Conference and Exhibition on Biometrics & Biostatistics. Chicago, Illinois, USA.

04/2013 Can Genomics Help to Fill the Gap Between Proteomics & Phenotypes? 5th Symposium of the Canadian National Proteomics Network. Vancourver, British Columbia, Canada.

12/2012 The Use of Robust Instrumental Variables Estimators to Identify Proteomics Biomarkers. Seminar Series, Department of Statistics, University of Victoria. Victoria, British Columbia, Canada.

12/2012 From Proteomics Biomarkers to Instrumental Variables Estimators. Seminar Series, Department of Statistics, Carlos III University. Madrid, Spain.

12/2012 Robust Instrumental Variables Estimators in Proteomics. 5th International Conference of the ERCIM Working Group on Computing & Statistics. Oviedo, Asturias, Spain, December 2012. Session Organizer and Speaker.

08/2012 Robust Instrumental Variables Estimators in Proteomics. International Conference of Robust Statistics (ICORS), Burlington, Vermont, USA.

11/2012 From Proteomics to Biomarkers Discovery: Statistical Challenges and Solutions. Seminar Series, Statistics and Actuarial Science Department, Simon Fraser University. Burnaby, British Columbia, Canada.

06/2012 From Proteomics to Biomarkers Discovery: Statistical Challenges and Solutions. Statistics Seminar, University of Buenos Aires, Buenos Aires, Argentina.

02/2012 Discovery of Cardiovascular Disease Biomarkers in Human Plasma using MRM-based Multiplexed Quantitation. British Columbia Proteomics Network (BCPN) Annual Symposium, Victoria, British Columbia, Canada.

01/2012 Building Bridges: from Protein Quantitation to Instrumental Variables Estimators. Statistics Seminar, University of British Columbia, Vancouver, British Columbia, Canada.

Workshop Participation and Organization

11/2018 BIRS Workshop, Statistical and Computational Challenges in High-Throughput Genomics with Application to Precision Medicine, Oaxaca, Mexico. Organizer. Proposal accepted.

11/2015 BIRS Workshop, Current and Future Challenges in Robust Statistics, Banff, Alberta, Canada. Invited Participant.

02/2015 Data Science Meets Personalized Medicine Workshop. Invited Participant.

11/2012 CIHR Team Grant Workshop. Co-organizer

Teaching

My teaching goals are to provide students a snapshot of real statistical work, both academic and non-academic, and that they learn by solving meaningful problems. I am passionate about effective teaching which I pursue by bringing to the classroom real world problems and tools to motivate the development and deep understanding of relevant concepts. In the past years, I have incorporated modern tools to ease and encourage communication with and among students (e.g., GitHub, Slack, and Google groups), exposed students to real problems (e.g., projects from other researchers on campus), and integrated hands-on activities during lecture times. I encourage students to participate in competitions. Last year, one group from my STAT450 course won an award at USCLAP competition with the study of a case I supervised.

I always talk about my research interests in the classroom to motivate and inspire students work. Some of my students have continued working with me as research assistant during the summer or have asked me to supervise their graduate research work.

Courses taught at UBC

STAT 450: Case Studies in Statistics. 2012-present.

STAT 550: Techniques of Statistical Consulting. 2014-present.

STAT 540: Statistical methods for high dimensional biology. 2012-2014.

Students Supervision

Graduate Students

Student Name	**Program**	**Year**		**Supervisory Role**	**Postgraduate Position**
		Start	**Finish**		
David Kepplinger	PhD Statistics	07/2015		Supervisor	
Derek Cho	MSc Statistics	07/2015		Supervisor	
Beryl Zhuang	MSc Bioniformatics	09/2015		Committee Member	
Yolanda Yang	MSc Experimenal Medicine	01/2015		Committee Member	
Nathaniel Lim	PhD GSAT	03/2015		Committee Member	
Derek Chiu	MSc Statistics	07/2014	05/2016	Supervisor	BC Cancer Research Centre
Chiara Gravio	MSc Statistics	09/2013	05/2015	Supervisor	Statistician at University of Southampton, UK

Hao Luo	PhD Statistics	09/2012	10/2016	Committee Member	Data Analyst at Rubylife, Canada
Nikolaus Fortelny	PhD Biochemistry	09/2012	05/2016	Committee Member	CeMM Research Institute, Austria
Amrit Singh	PhD Experimental Medicine	09/2012	05/2016	Committee Member	Postdoctoral Fellow at PROOF Centre
Dai LiYing	MSc Statistics	09/2010	05/2012	Co-supervisor with Dr. Raymond Ng (CS)	Data Analyst at GenomeDx Bioscience

Undergraduate Students

- Grace Hsu, Geoff Roeder, Andrew Lee (for USCLAP competition)
- Derek Cho (USRA funded, summer 2014, MSc in Statistics, UBC)
- Daniel Liu (USRA funded, summer 2013, MSc in Statistics, University of Chicago)

Grants and Awards (since 2012)

Genome Canada Biomarkers Project, invited to apply and lead the computational group

CFI Innovation Fund for Systems Immunology, applied

NSERC Undergraduate Student Research Award (USRA), 2013 and 2014

NSERC Discovery Grant, 2013-2018

Canada Research Chair in Statistical Genomics, 2012-2017

Canada Research Chair Infrastructure Funds, Canada Foundation for Innovation, 2012

Selected Academic Activities

Journal Reviewer for *Nature, Bioinformatics, Journal of the American Statistical Association, Journal of the Royal Statistical Association, Serie B, Bernoulli Journal, Computational Statistics and Data Analysis, Statistics in Medicine, Computational Statistics, Statistics and Computing, Journal of Proteome Research, Proteomics, IEEE Transactions on Knowledge and Data Engineering, International Journal of Biological Macromolecules, American Journal of Transplantation, International Journal of Control*

Grant Reviewer, 2015

Judge at USCLAP Competition, 2017

Affiliated Faculty with the Data Science Institute at UBC

Peer Teaching Evaluation Committee. Department of Statistics. July-January 2014

Data Science Committee. Department of Statistics. 2014

Mentor of female graduate students in Software Carpentry, March 2015