

Curriculum Vitæ – Shirin Golchi

June 5, 2025

* Please see final page for a list of acronyms for funding agencies and societies *

A. IDENTIFICATION

Name: Shirin Golchi
Address: Department of Epidemiology, Biostatistics, and Occupational Health (EBOH)
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B. EDUCATION

2014 Ph.D. (Statistics)
Simon Fraser University, Vancouver BC, Canada
Ph.D. thesis title: Bayesian Computational Methods and Applications
2009 Master of Science (Statistics)
Allameh Tabatabaie University, Tehran, Iran
M.Sc. thesis title: Inverse Sampling and Adaptive Cluster Sampling
2002 Bachelor of Science (Statistics)
University of Tehran, Tehran, Iran

C. APPOINTMENTS

2025 – Associate Professor, Department of Epidemiology, Biostatistics,
and Occupational Health, McGill University
2019 – 2025 Assistant Professor, Department of Epidemiology, Biostatistics,
and Occupational Health, McGill University
2017 – 2019 Senior Statistician, MTEK Sciences
2015 – 2017 Postdoctoral Research Fellow, Unit 5 - Statistics, University of British Columbia –
Okanagan campus
2014 – 2015 Postdoctoral Research Officer, Department of Statistics, Columbia University

D. SPECIAL HONOURS, AWARDS, RECOGNITION

Career Awards

2022–2026 FRQS Chercheurs-boursiers Junior 1
Statistical Methods for the Design and Analysis of Clinical Trials (\$267,401)

Recognitions

2020 The Lawrence Joseph Award for Teaching Excellence in Epidemiology
Granted by EBOSS, McGill University

E. TEACHING

1. Graduate courses

EBOH, McGill University

Course title	Course no.	In-class hours	Credits	Year	No. students
Advanced Generalized Linear Models	BIOS 612	26	2	2024	10
		52	4	2023	3
Design of Randomized Clinical Trials	EPIB 635	39	3	2024	9
				2023	12
				2022	15
				2021	12
				2020	13
Data Analysis for Health Sciences	EPIB 621	52	4	2023	70
				2022	80
				2021	70
				2020	71
Substantive Epidemiology (Clinical Trials)	EPIB 642	13	1	2019	2

2. Short Courses and Tutorials

Year	Course Title	Location	In-class hours	No. Students
2021	Bayesian Adaptive Clinical Trials	McGill Summer School in Health Data Analytics	2	~20
2022	Introduction to Bayesian Statistics	McGill CDSI	2	~20
2024	Bayesian Adaptive Designs for Clinical Trials	CANTRAIN (online)	1.5	~50

3. Invited Lectures

Year	Course Title	Lecture title	Location	No. hours
2024	Randomized Clinical Trials – Clinicians’ perspective (Instructor: Richard Menzies)	Bayesian Adaptive Clinical Trials	McGill University	1

4. Research Trainees Supervised **Indicates primary supervisor.*

Post-doctoral trainee supervision

- 2024 – Luke Hagar
NSERC Postdoctoral Fellowship (\$70,000/year, 2 years)
- 2023 – *Lara Maleyeff (Co-supervisor: Erica Moodie)
CRM StatLab-CANSSI Postdoctoral Fellowship (\$42,000 in 2024 - declined)
CANSTAT Fellowship (\$70,000 in 2024; clinician co-mentor: Marie Hudson)

Graduate students: Doctoral degree supervision

Sole supervision

- 2022 – Xianglin Zhao, PhD Biostatistics
SSC Case Studies Award (\$750, shared)
FRQNT doctoral training award (\$25,000/year, 3 years + 4 months)
GREAT Award (\$1000 in 2025)
SSC Student Travel Award (\$?? in 2025)

Co-supervision

- 2020 – 2024 *James Joseph Willard, PhD Biostatistics (Co-supervisor: Erica Moodie)
SSC Case Studies Award (\$750, shared)
FRQNT doctoral training award (\$21,000/year, three years + 4 months)
2022 SSC Best Oral Presentation Award
McGill Faculty of Medicine doctoral fellowship (\$12,000), declined
2023 ASA Section on Bayesian Statistical Science (SBSS) student paper competition award
GREAT Award (\$1000 in 2023)
2024 ASA Biopharmaceutical Section student paper competition honorable mention (\$500)
- 2020 – 2024 Junwei Shen, PhD Biostatistics (Co-supervisor: Erica Moodie)
MITACS Accelerate Internship (August-December, 2020)
SSC Case Studies Award (\$750, shared)
FRQNT doctoral training award (\$25,000/year, 1 year + 4 months)
- 2022 – Mariana Carmona Baez, PhD Biostatistics (Co-Supervisor: Alexandra Schmidt)
- 2023 – *Nam-Anh Tran, PhD Biostatistics (Co-Supervisor: Laura Richert, University of Bordeaux)

- Dual-degree program with University of Bordeaux
- GREAT Award (\$500 in 2024)
- 2023 – Maureen Churipuy, PhD Epidemiology (Co-Supervisor: Dimitra Panagiotoglou)
- 2024 – *Jiayin Chen, PhD Biostatistics (Co-supervisor: Erica Moodie)
- FRQNT doctoral training award (\$25,000/year, 4 years)
- 2024 – *Xinyu Chen, PhD Biostatistics (Co-supervisor: Anna Heath (University of Toronto))
- FRQNT doctoral training award (\$25,000/year, 4 years)

Graduate students: Master's degree supervision

- 2021 – 2022 *Lily Chafetz, MSc (NT) Biostatistics (Co-supervisor: Alexandra Schmidt)
- 2021 – 2023 *Tasneem Fatima Alam, MSc (NT) Biostatistics (Co-supervisor: Alexandra Schmidt)
- 2023 – 2024 *Maureen Churipuy, CANSTAT Fellow (Co-supervisor: Marie Hudson)

Thesis committee member

- 2021 – Paritosh Kumar Roy, PhD Biostatistics (Supervisor: Alexandra Schmidt)
- 2021 – 2022 Jingyan Fu, MSc Biostatistics (Co-Supervisors: Sahir Bhatnagar, James Brophy)
- 2022 – 2023 Margaret Logel, MSc Epidemiology (Supervisor: Eduardo Franco)
- 2023 – 2024 Nora Morrison, MSc Epidemiology (Supervisors: Rebecca Fuhrer, Srividya Iyer)
- 2024 – Sebastien Garneau, PhD Biostatistics (Supervisor: Alexandra Schmidt)

5. Mentoring activities

- 2023 – CANSTAT biostatistician mentor
- 2023 – 2024 Telemachus Scholars (peer mentorship) Program

F. Other Contributions

1. Journals

Journal Editorship

- 2024 (July) – Associate Editor, Biometrics

Reviewer of Journal Articles (4-7 papers per year)

American Journal of Epidemiology, Biometrics, Biometrical Journal, Canadian Journal of Statistics, Computational Statistics and Data Analysis, Data Base, Journal of the American Statistical Association, Statistical methods in Medical Research, Statistics in Medicine, Technometrics, SIAM/ASA Journal of Uncertainty Quantification, Statistica Sinica, Nature Communications, Pharmacoepidemiology and Drug Safety, Philosophical Transactions A, Preventive Medicine Reports, The American Statistician, Stat

2. Grant Reviews

Reviewer for Granting Agencies

2024	New Zealand Health Research Council
2021 – 2022	NSERC Discovery Grant
2020	CIHR, COVID-19 May 2020 Rapid Research Funding Opportunity
2018	Medical Research Council (United Kingdom)
2015	US Army Research

Reviewer for Fellowships and Award

2022 – 2023	CRM CANSSI-StatLab Postdoctoral Fellowship
2022	National Killam Program
2023	FMHS Studentship competition
2023	Pragmatic Trials Training Program Awards
2023 – 2024	CANSTAT Fellowship

3. Examination committees

Comprehensive exam

2021 – 2022	Member, Applied comprehensive exam (BIOS 701)
2022 –	Member, Theoretical comprehensive exam (BIOS 700)
2023 – 2024	Member, Applied comprehensive exam (BIOS 701)

Theses and thesis protocols examination

Year	PhD thesis	PhD thesis protocol	MSc thesis
2019	0	0	0
2020	0	2	1
2021	1	0	1
2022	3	2	0
2023	2	3	0
2024	2	1	1

4. Administrative Responsibilities and Committees

Department of Epidemiology, Biostatistics, and Occupational Health

2019 –	Member, Biostatistics Program Committee
2019 –	Member, Biostatistics Admissions Committee
2019 – 2020	Co-Organizer and chair, Biostatistics Seminar Series

2020 – 2022 Organizer and chair, Biostatistics Seminar Series
 2020 – 2022 Judge, EBOH Research Day
 2021 – 2022 Member, Epidemiology Programs Committee
 2021 – 2022 Member, Biostatistics Faculty Search Committee
 2023 – 2024 Member, Biostatistics Faculty Search Committee
 2023 – EBOH Faculty Council representative (Tenure stream)
 2023 – 2024 Chair, Biostatistics Admissions Committee

McGill University

2022 – 2023 External member, Mathematics and Statistics Faculty Search Committee

Other

2020 Member, PROTECT Trial Steering Committee
 2020 – 2023 Member, AID-ME Trial (led by Aifred Health) Steering Committee
 2022 – Member, CANSTAT Executive Committee
 2022 – Chair, CANSTAT Admissions Committee
 2023 – 2024 Member, CanTreatCOVID Trial DSMC
 2024 – 2027 Member and Liaison to the EDI Committee, SSC Women in Statistics Committee
 2024 – 2027 Member, SSC Membership Committee

Organization of conferences and sessions

Conferences and events

2022 Co-chair, local organization committee, BAYSM, Montreal, Canada
 2023 Member, organizing committee, International Women in Mathematics Day CRM event, Montreal
 2024 Member, scientific committee, Adaptive Platform Trials Workshop, Toronto
 2025 Chair, invited and contributed posters, JSM (Annual Meeting of the ASA), Nashville, USA

Invited sessions at conferences

2022 Organizer, ISBA, Montreal, Canada
 2023 Organizer, SSC, Ottawa, Canada
 2023 Organizer and chair, ENAR, Nashville TN, USA
 2024 Organizer, ISBA, Venice, Italy
 2024 Organizer, IBC Atlanta Georgia, USA

5. Professional Associations

2012 – SSC
 2012 – ASA

2020 – CRM/StatLab
 2021 – ISBA
 2022 – IBS (ENAR)
 2023 – ISCB

G. RESEARCH

1. Research Activities

My primary research interest lies at the interface of Bayesian modelling/computation and clinical trials with a specific focus on Bayesian adaptive clinical trial designs. My current research program comprises the following components: (a) development of automated design optimization procedures for efficient exploration of a wide range of assumption and trial design parameters at the planning stage; (b) Innovative design and analysis of clinical trials to address challenging research questions; (c) Bayesian analysis and computation in health applications.

2. Grants Obtained

*As Principal Investigator (PI) or co-PI: Program, Title, NPI/co-PIs if applicable, total (years). * Indicates sole investigator/applicant.*

1. FRQNT-NSERC NOVA for Emerging Researchers, Statistical methods for design and analysis of precision clinical trials, Co-Investigators: Erica Moodie, Alexandra Schmidt, and Anna Heath, \$244,889 (2024 – 2027).
2. CIHR Pan-Canadian Network for HIV/AIDS and Sexually Transmitted and Blood Borne Infections (STBBI) Clinical Trials Research Network (CTN), NPI: Marina Klein, \$25,000,000 (2024–2029).
3. Diabetes Canada End Diabetes Awards, Application ID: OG-3-23-5723-KD; NPI: Kaberi Dasgupta, \$300,000 (2024–2027).
4. CIHR Training Grant: Clinical Trials Training Platforms, Canadian Network for Statistical Training in Trials (CANSTAT), NPI: Sameer Parpia, \$2,542,143 (2023–2026).
5. CANSSI Collaborative Research Teams Grant, Statistical Design of Bayesian Adaptive Clinical Trials, Co-Lead Investigators: Anna Heath and Haolun Shi, \$210,000 (2023–2026).
6. *FRQS Établissement de jeunes chercheurs, Statistical Methods for the Design and Analysis of Clinical Trials, \$80,000 (Operating funds, 2022–2026).
7. *NSERC – Discovery Grant, Modern Techniques in Design and Analysis of Bayesian Adaptive Clinical Trials, \$138,000 (2020–2025 + 2026 ECR extension).
8. *NSERC – Discovery Launch Supplement, ECR, \$12,500 (2020).

As Co-Investigator: Program, Title, PI, total (years)

1. RI-MUHC ACT-CTU Flagship Clinical Trial Feasibility Project. Improving post operative lung resection outcomes with eosinophil guided inhaled corticosteroids, NPI: Nicole Ezer, \$50,000 (2024).
2. CIHR Operating Grant: Clinical Trials Projects. Finding the right balance: An adaptive trial to identify the safest regimen with the shortest duration for TB prevention (treatment of TB Infection), NPI: Richard Menzies, \$5,772,119 (2024-2026).
3. CIHR Project Grant. Randomized Double-Blind Placebo-Controlled Clinical Trial to Assess the Efficacy of Mycophenolate Mofetil in Subclinical Interstitial Lung Disease Associated with Systemic Sclerosis: a Feasibility Study. Sabrina Anh-Tu Hoa, \$346,640 (2022–2025).
4. MITACS Accelerate. New designs for Bayesian adaptive cluster randomized trials for an individualized clinical support tool with capacity to support distance follow up and treatment of depression. Internship Supervisor: Erica Moodie, \$30,000 (2020-2021).
5. CIHR COVID-19 Rapid Research Funding Opportunity. PRevention of COVID-19 with high dose Oral Vitamin D supplemental Therapy in Essential healthCare Teams (PROTECT). Francine M. Ducharme; Cécile L. Tremblay , \$4,224,996 (2020).
6. The Bill and Melinda Gates Foundation. Investment ID OPP1192472, Synbiotics for the Early Prevention of Severe Infections in Infants (SEPSiS) trial, Daniel Roth (Hospital for Sick Children, Toronto), \$15,356,759, \$84,000 (2020-2022).

Other Funding

1. Collaborative Research Agreement with PharmaLex Belgium, \$42,000 (2023).
2. Faculty of Medicine and Health Sciences Start-up fund, \$60,000 (2019-2022).

3. Publications (bolded authors indicate trainees under my supervision)

Position in the author list may be interpreted as follows. For statistics/biostatistics papers led by students, the student takes first authorship and I am the second or third author as the primary or co-supervisor. In substantive publications where I provide statistical consultation I am listed as a middle author. * Indicates co-first authorship.

Published/accepted for publication

1. **J. Shen**, E. E. M. Moodie, S. Golchi. Sparse two-stage Bayesian meta-analysis for individualized treatments. *Biometrics*. Accepted, May 2025.
2. D. Benrimoh, K. Whitmore, M. Richard, G. Golden, K. Perlman, S. Jalali, T. Friesen, Y. Barkat, J. Mehlretter, R. Fratila, C. Armstrong, S. Israel, C. Popescu, J. Karp, S. Parikh, S. Golchi, E. Moody, J. Shen, A. Gifuni, M. Ferrari, M. Sapra, S. Kloiber, G. Pinard, B. Dunlop, K. Looper, M. Ranganathan, M. Enault, S. Beaulieu, S. Rej, F. Hersson-Edery, W. Steiner, A. Anacleto, S. Qassim, R. McGuire-Snieckus, H. Margolese. Artificial Intelligence in Depression – Medication Enhancement (AID-ME): A Cluster Randomized Trial of a Deep Learning Enabled Clinical Decision Support System for Personalized Depression Treatment Selection and Management. *Journal of Clinical Psychiatry*. Accepted , 2025.

3. S. N. Iyer, P. Boksa, R. Joobar, J. Shah, R. Fuhrer, N. Andersson, S. Lal, G. D'Andrea, N. Morrison, V. Noel, D. Rabouin, T. Cowan, M. A. Levasseur, F. Poukhovski, Sheremetyev, A. Abdel-Baki, L. C. Augustine, K. Friese, I. Godin, K. Hay, D. Hutt-MacLeod, V. Plourde, N. Rabbitskin, P. Reaume-Zimmer, C. Rousseau, H. Rudderham, A. Abba-Aji, D. Aubin, L. Urichuk, H. Vallianatos, S. Golchi, I. Winkelman, J. Chisholm-Nelson, A. Malla. (2025) Improving access to and timeliness of youth mental health services in diverse settings: Results from the pan-Canadian ACCESS Open Minds initiative. *JAMA Psychiatry*. Published online February 26, 2025. doi:10.1001/jamapsychiatry.2024.4880.
4. N. Germain, Ma. Audet, L. Graves, S. Murthy, S. L. McLeod, J. Khangura, S. Golchi, A. D. McRae, C. M. Hohl, I. Cheng, G. O. Chevrier, J. Marshall, and P. Archambault, and the APTs in EM Group. (2025) CAEP 2024 Academic Symposium: Adaptive Platform trials in Emergency Medicine in Canada. *Canadian Journal of Emergency Medicine*. <https://doi.org/10.1007/s43678-025-00874-w>.
5. **L. Maleyeff**, S. Golchi, E. E. M. Moodie, M. Hudson. (2024) An adaptive enrichment design using Bayesian model averaging for selection and threshold-identification of tailoring variables. *Biometrics*. 80(4), ujae141
6. **J. J. Willard**, S. Golchi, E. E. M. Moodie, B. Boulanger, B. P. Carlin. (2024) Bayesian Optimization for Personalized Dose-Finding Trials with Combination Therapies. *Journal of the Royal Statistical Society, Series C*. qlae058.
<https://arxiv.org/abs/2310.17334>
7. C. Prosty, M. Le, Y. Lu, L. Khoury, M. Cormier, M. Cheng, R. Fowler, S. Murthy, J. Tsang, D. Lejtenyi, M. Ben-Shoshan, E. Rahme, S. Golchi, N. Dendukuri, T. Lee, E. Netchiporouk. (2024) Effect of Omalizumab on Inflammatory Markers in COVID-19: An Exploratory Analysis of the COVID-19 Immunologic Antiviral therapy with Omalizumab (CIAO) Trial. *Frontiers in Medicine*. 11, 1437322.
8. **M. Churipuy**, S. Golchi, M. Hudson, and S. Hoa. (2024) A Bayesian adaptive feasibility design for rare diseases. *Contemporary Clinical Trials communications*. 42: 101392.
<https://doi.org/10.1016/j.conctc.2024.101392>
9. S. Golchi and **J. J. Willard** (2024) Estimating the Sampling Distribution of Posterior Decision Summaries in Bayesian Clinical Trials. *Biometrical Journal* , 66: e70002.
<https://doi.org/10.1002/bimj.70002>
10. **L. Maleyeff**, E. E. M. Moodie, S. Golchi (2024) Viewpoint –SMART designs: Bridging the gap. *Journal of Infectious diseases*. jiae493.
<https://doi.org/10.1093/infdis/jiae493>.
11. **M. Carmona-Baez**, A. M. Schmidt, S. Golchi, D. Buckeridge (2024) A joint temporal model for hospitalizations and ICU admissions due to COVID-19 in Quebec. *Stat*. 13: e70000.
<https://doi.org/10.1002/sta4.70000>
12. M. Le, L. Khoury, Y. Lu, C. Prosty, M. Cormier, M. P. Cheng, R. Fowler, S. Murthy, J. LY Tsang, E. Rahme, S. Golchi, N. Dendukuri, T. C. Lee, E. Netchiporouk. (2024) COVID-19 Immunologic Antiviral therapy with Omalizumab (CIAO) – A Phase II Randomized-Controlled Clinical Trial. *Open Forum Infectious Diseases*, ofae10.
<https://doi.org/10.1093/ofid/ofae102>.
13. **J. J. Willard**, S. Golchi, E. E. M. Moodie. (2024) Covariate Adjustment in Bayesian Adaptive Clinical Trials. *Statistical Methods in Medical Research*. 33(3):480–497.
<https://doi.org/10.1177/09622802241227957>

14. F. M. Ducharme, C. L. Tremblay, S. Golchi, B. Hosseini, C. Longo, J. H. White, D. Coviello, C. Quach, L. Ste-Marie, R. W. Platt. (2023) Prevention of COVID-19 with Oral Vitamin D Supplemental Therapy in Essential Healthcare Teams (PROTECT trial): protocol for a multicentre randomized placebo-controlled, triple-blind trial. *BMJ Open*, 13(5).
doi: 10.1136/bmjopen-2022-064058
15. B. Hosseini, C. L. Tremblay, C. Longo, S. Golchi, J. H. White, D. Coviello, C. Quach, L. Ste-Marie, R. W. Platt, F. M. Ducharme. (2022) Oral vitamin D supplemental therapy to attain a desired serum 25-hydroxyvitamin D concentration in essential healthcare teams. *Trials*, 23(1):1019.
<https://doi.org/10.1186/s13063-022-06944-z>
16. **J. Shen**, S. Golchi, E. E. M. Moodie, D. Benrimoh. (2022) New Designs for Bayesian Adaptive Cluster-Randomized Trials. *Stat.* 11(1), e487.
<https://doi.org/10.1002/sta4.487>
17. S. Golchi, **J. J. Willard**, E. Pullenayegum, D. G. Bassani, L. G. Pell, K. Thorlund, and D. E. Roth. (2022) A Bayesian Adaptive Design for Clinical Trials of Rare Efficacy Outcomes with Multiple Definitions. *Clinical Trials*. 19(6):613–622.
<https://doi: 10.1177/17407745221118366>
18. S. Golchi. (2022) Estimating the Design Operating Characteristics in Bayesian Adaptive Clinical Trials. *Canadian Journal of Statistics*. 50(2):417–436.
19. S. Golchi, J. Fu, X. Liu, E. Yu, R. Forghani, S. Bhatnagar. (2021) Sparse Bayesian Predictive Modelling of Tumor Response Using Radiomic Feature. *Stat.* 11(1), e450.
<https://doi.org/10.1002/sta4.450>.
20. M. Miocevic, S. Golchi. (2021) Bayesian mediation analysis with power prior distributions. *Multivariate Behavioral Research*. 57(6):978–993.
<https://doi: 10.1080/00273171.2021.1935202>.
21. S. Golchi, K. Thorlund. (2020) Sequential Monte Carlo for Response Adaptive Randomized Trials. *Biostatistics*. Vol. 21, No. 2, pp. 287–301.
<https://doi.org/10.1093/biostatistics/kxy048>.
22. L. Dron*, S. Golchi*, G. Hsu, K. Thorlund. (2019). Minimizing control group allocation in randomized trials using dynamic borrowing of external control data: an application to second line therapy for non-small cell lung cancer. *Contemporary Clinical Trials Communications*. 16:100446.
<https://doi:10.1016/j.conctc.2019.100446>
23. K. Thorlund, S. Golchi, J. Haggstrom, E. Mills. (2019). Highly Efficient Clinical Trials Simulator (HECT): Software application for planning and simulating platform adaptive trials. *Gates Open Research*. 3:780.
<https://doi:10.12688/gatesopenres.12912.2>
24. S. Golchi. (2019) Informative Priors in Bayesian Inference and Computation. *Statistical Analysis and Data Mining: The ASA Data Science Journal*. 12(2):45–55.
<https://doi.org/10.1002/sam.11371>.
25. S. Golchi, R. Lockhart. (2018) A Frequency-Calibrated Bayesian Search for New Particles. *Annals of Applied Statistics*. 12(3):1939–1968.
<https://doi.org/10.1214/18-AOAS1138>.

26. E. Mills, A. Adhvaryu, P. Jakiela, J. Birungi, S. Okoboi, T. N. W. Chimulwa, J. Wanganisi, T. Achilla, E. Popoff, S. Golchi, D. Karlan. (2018) Unconditional cash transfers for clinical and economic outcomes among HIV-affected Ugandan households. *Aids*. Vol. 32, No. 14, pp. 2023–2031.
27. K. Thorlund, S. Golchi, E. Mills. (2017) Bayesian Adaptive Clinical Trials of Combination Treatments. *Contemporary Clinical Trials Communications*. 8, pp. 227-233.
28. S. Golchi (2016). Informative Priors and Bayesian Computation. *In The Proceedings of IEEE Data Science and Advanced Analysis 2016*.
29. S. Golchi, D.A. Campbell (2016). Sequentially Constrained Monte Carlo. *Computational Statistics and Data Analysis*. Vol. 97, pp. 98–113.
30. S. Golchi, D. Bingham, H. Chipman, D.A. Campbell (2015). Monotone Emulation of Computer Experiments. *SIAM/ASA Journal of Uncertainty Quantification*. Vol. 3, No 1, pp. 370-392.

Submitted/under revision

1. **Y. Zhang**, S. Golchi, H. Shi. Covariate-Adjusted Response-Adaptive Randomization in Clinical Trials Using MRI-Derived Prognostic Features. *Canadian Journal of Statistics*. Submitted Apr 16, 2025.
2. **L. Hagar**, S. Golchi. Design of Bayesian Clinical Trials with Clustered Data and Multiple Endpoints. *Statistics in Medicine*. Submitted, Apr 14, 2025.
<https://arxiv.org/abs/2501.13218>
3. **L. Hagar**, S. Golchi, M. Klein. Sequential Design with Posterior and Posterior Predictive Probabilities. *Journal of the American Statistical Association*. Submitted Mar 25, 2025.
4. **L. Maleyeff**, S. Golchi, E. E. M. Moodie. fkbma: An R Package for Detecting Tailoring Variables with Free-Knot B-Splines and Bayesian Model Averaging. *Journal of Statistical Computation and Simulation*. Submitted Mar 10, 2025.
5. **L. Maleyeff**, S. Golchi, E. E. M. Moodie, J. R. Kimoff. A precision medicine trial design to address heterogeneous treatment effects with application to obstructive sleep apnea. *Canadian Journal of Statistics -Applications and Case Studies*. Revisions invited, 2025.
6. S. Parpia, J. Dobinson, A. Heath, H. Wong, K. Thorpe, T. Sajobi, S. Golchi, L. Mbuagbaw, S. F. Lee, T. Ho, V. Bishop. Training the Next Generation of Clinical Trial Biostatisticians. *Clinical Trials*. Submitted Feb 20, 2025.
7. **M. Churipuy**, S. Golchi, S. Hoa., and M. Hudson. Use of Bayesian techniques in clinical trials for rheumatic diseases. *Arthritis & Rheumatology*. Revisions invited, 2025
8. **J. Shen**, E. E. M. Moodie, S. Golchi. Two-stage Bayesian network meta-analysis of individualized treatment rules for multiple treatments with siloed data. *Statistical Methods in Medical Research*. Revisions invited, 2024.

4. Presentations

Invited Conference Presentations

1. Bayesian Design Operating Characteristics in Clinical Trials, *IBC*, Atlanta, Georgia USA, December 2024.
2. Statistical Design of Bayesian Adaptive Trial Designs, *Greek Stochastics*, Folegandros, Greece, July 2024.
3. Bayesian Design Operating Characteristics in Clinical Trials, *ISBA World Meeting*, Venice, Italy, July 2024.
4. Estimating Probabilities of Errors; from Particle Physics to Clinical Trials, *Statistical Learning for Large Scale Data*, Simon Fraser University, Vancouver, June 2024.
5. Bayesian Model Averaging for Selection and Threshold-Identification of Tailoring Variables, *The 37th New England Statistics Symposium*, University of Connecticut, May 2024.
6. Estimating the Sampling Distribution of Test-Statistics in Bayesian Clinical Trials, *SSC Annual Meeting*, Ottawa, May 2023.
7. Current Approaches for Accelerating Drug Approvals in Rare Disease (Discussion), *ENAR Spring Meeting*, Nashville TN, March 2023.
8. Computationally Efficient Assessment of Design Operating Characteristics in Bayesian Adaptive Trials. *JSM*, Washington DC, August 2022.
9. Estimating Design Operating Characteristics in Clinical Trials. *ISBA World Meeting*, Montreal, June 2022.
10. Use of Historical Individual Patient Data in Analysis of Clinical Trials. *The 34th New England Statistics Symposium*, October 2021.
11. Assessment of Design Operating Characteristics for Bayesian Adaptive Trials. *6th Canadian Conference in Applied Statistics*, July 2021.
12. Assessment of Design Operating Characteristics for Bayesian Adaptive Trials. *SSC meeting*, June 2021.
13. Sparse Bayesian Predictive Modeling of Tumor Response from Radiomic Data. *2021 Symposium on Data Science and Statistics*, June 2021.
14. Individually weighted power priors for data synthesis. *ENAR Spring Meeting*, March 2021.
15. Informative Priors based on Individual Patient Data for Analysis of Clinical Trials. *ICSA-Canada Chapter 2019 Symposium*, Kingston, ON, Canada, 2019.
16. Designs of constrained computer experiments. *Conference on Frontiers of Big Data and Statistical Sciences; ICSA Canada Chapter*, Vancouver, 2017.
17. Informative priors and Bayesian computation. *3rd IEEE International Conference on Data Science and Advanced Analytics*, Montreal, October 2016.
18. Space-filling designs for constrained regions. *International conference on design of experiments ICODOE*, University of Memphis, 2016.
19. Sequentially Constrained Monte Carlo. *Association for Women in Mathematics Research Symposium*, University of Maryland, 2015.

Invited Presentations at Universities or Research Institutes and Organizations

1. Bayesian Design Operating Characteristics in Clinical Trials, University of Minnesota Division of Biostatistics & Health Data Science seminar series, Minneapolis, March 2024.
2. An Introduction to Bayesian Inference. Joint CIRS/SWB webinar series, July 2022.
3. An Introduction to Bayesian adaptive methods in clinical trials (Webinar). PharmaLex, June 2022.
4. Statistical Design of Bayesian Adaptive Trials. University of Sherbrooke, May 2022.
5. Assessment of Design Operating Characteristics for Bayesian Adaptive Trials. McGill University Health Centre – Glen site, April 2021.
6. Design and Analysis of Modern Clinical Trials. Jewish General Hospital, Epidemiology Seminar Series, September 2020.
7. Design and Analysis of Modern Clinical Trials. Département de mathématiques, Université du Québec à Montréal, March 2020.
8. Computational Techniques for Bayesian Adaptive Randomized Trials. Department of Epidemiology, Biostatistics and Occupational Health, McGill University, November 2018.
9. Constraints, priors, and Bayesian Computation. Department of Statistics and Actuarial Science Seminar, University of Waterloo, January 2017.
10. Sequentially Constrained Monte Carlo. Unit 5 Colloquium Talks, University of British Columbia - Okanagan, 2015.
11. Bayesian Inference for Social Networks using Aggregated Relational Data. eScience Institute, University of Washington, 2015.
12. Monotone Function Estimation for Computer Experiments. University of Victoria, Department of Mathematics and Statistics Seminar Series, 2013.

Contributed presentations and posters

1. Methods for assessment of frequentist operating characteristics in Bayesian clinical trials. *44th International Conference of the ISCB*, Milan, Italy, August 2023.
2. Assessment of Design Operating Characteristics in Bayesian Adaptive Designs for Clinical Trials. *31st International Biometric Conference*, Riga, Latvia, July 2022.
3. Assessment of Design Operating Characteristics for Bayesian Adaptive Trials. *ISBA World Meeting*, June/July 2021.
4. Sequential Monte Carlo for Response Adaptive Randomized Trials. *International Biometric Conference*, Barcelona, Spain, 2018.
5. Sequentially Constrained Monte Carlo. *SSC Meeting*, Toronto, 2014.
6. Monotone Emulation and Uncertainty Quantification (Poster). *CoDA*, Santa Fe, NM, 2014.
7. Monotone Computer Experiments. *JSM*, Montreal, 2013.
8. A Decision Theoretic Approach for Hypothesis Testing in Particle Physics. *SSC Meeting*, Edmonton, 2013.
9. A Parallel Tempering Algorithm to Sample from Constrained Posteriors. *SFU-UBC Joint Workshop*, 2012.

ACRONYMS

ASA	American Statistical Association
BAYSM	Bayesian Young Statisticians' Meeting
CANSTAT	The Canadian Network for Statistical Training in Trial
CANTRAIN	CANadian Consortium of Clinical Trial TRAINing platform
CDSI	Computational and Data Systems Initiative
CIHR	Canadian Institutes of Health Research
CIRS	Committee on International Relations in Statistics
CoDA	Conference on Data Analysis
CRM	Centre de recherches mathématiques
ECR	Early Career Researcher
ENAR	Eastern North American Region of the IBS
FMHS	Faculty of Medicine and Health Sciences
FRQS	Fond du Recherche de Québec - Santé
FRQNT	Fond du Recherche de Québec - Nature et technologies
IBS	International Biometrics Society
IBC	International Biometrics Conference
ICSA	International Chinese Statistical Association
ICODOE	International Conference on Design of Experiments
ISBA	International Society for Bayesian Analysis
ISCB	International Society for Clinical Biostatistics
JSM	Joint Statistical Meetings
MITACS	Mathematics of Information Technology and Complex Systems
NSERC	Natural Sciences and Engineering Research Council
RI-MUHC	Research Institute of the McGill University Health Centre
ACT-CTU	Accelerating Clinical Trials - Clinical Trials Unit
SIAM	Society for Industrial and Applied Mathematics
SWB	Statistics without Borders