

Stephanie C. Weber

Canada Research Chair in Spatial Organization of Living Systems
Associate Professor, Department of Biology
Associate Member, Department of Physics
McGill University
<https://weberlab.ca>

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Education

Ph.D. Biochemistry, Stanford University 2011
B.S. Biology, B.S. Chemistry, *summa cum laude*, Duke University 2006

Appointments

Associate Professor, Department of Biology, McGill University 2022-present
Associate Member, Department of Physics, McGill University 2018-present
Assistant Professor, Department of Biology, McGill University 2016-2022
Adjunct Lecturer, Department of Biology, Santa Clara University 2015-2016
Postdoctoral Fellow, Department of Chemical and Biological Engineering,
Princeton University 2011-2015

Honors and awards

Canada Research Chair in Spatial Organization of Living Systems, Tier 2 2021-present
Nominated for the Principal's Prize for Outstanding Emerging Researchers 2021
Department of Biology nominee
Nominated for the Principal's Prize for Excellence in Teaching 2020, 2021
Faculty of Science nominee, Assistant Professor level
Damon Runyon Postdoctoral Fellowship 2012-2015
Jane Coffin Childs Memorial Fund Postdoctoral Fellowship (declined) 2012
Life Sciences Research Foundation Postdoctoral Fellowship (declined) 2012
Bioengineering Outstanding Teaching Assistant Award 2011
Harold M. Weintraub Graduate Student Award 2011
National Science Foundation Graduate Research Fellowship 2008-2011

Research

Overview

The Weber lab uses quantitative live-cell imaging and physical modeling to understand how biological systems establish and dynamically regulate spatial organization. Currently, we are focused on the process of intracellular phase separation, which governs the assembly and function of various membraneless organelles. We study this process in three distinct but complementary systems: clusters of RNA polymerase in the bacterium *Escherichia coli*; nucleoli in the nematode *Caenorhabditis elegans*; and condensed chromosomes in the symbiotic alga *Breviolum minutum*. Ultimately, we are interested in determining how these condensed-phase organelles affect the growth, size and health of individual cells, multicellular organisms, and ecological communities.

Research funding

Currently held

Blue-Sky Seed Funding, Centre de Recherche en Biologie Structurale Multi-scale tomographic imaging of dinoflagellate chromosomes PI: Weber, S. C. ; Co-PI: Reznikov, N. Amount: \$40,000 total; \$20,000 to Weber lab	2023-2024
Team Grant, Fonds de recherche du Québec - Nature et technologies Quantifier les contributions fonctionnelles des condensats à la transcription et à la replication PI: Weber, S. C. ; Co-PIs: Reyes-Lamothe, R., Francois, P. Amount: \$190,202 total; \$50,000 to Weber lab	2023-2026
Canada Research Chair, Tier 2 Spatial organization of living systems PI: Weber, S. C. Amount: \$600,000	2021-2026
Exploration Grant, New Frontiers in Research Fund Organization and function of the dinoflagellate genome PI: Weber, S. C. ; Co-PIs: Guse, A., Straight, A. F. Amount: \$250,000 total; \$100,000 to Weber lab	2020-2024
Project Grant, Canadian Institutes of Health Research Molecular mechanisms controlling the phase behavior and biosynthetic activity of the nucleolus PI: Weber, S. C. Amount: \$650,250	2018-2023
Discovery Grant, Natural Sciences and Engineering Research Council Biophysical mechanisms driving spatial organization in bacterial cells PI: Weber, S. C. Amount: \$315,000	2017-2024

Previously held

- Team Grant, Fonds de recherche du Québec - Nature et technologies 2020-2023
 Design, synthesis and evaluation of upconverting nanoparticles
 for *in vivo* applications
 PI: Stochaj, U.; Co-PIs: Capobianco, J. A., **Weber, S. C.**
 Amount: \$190,500 total; \$0 to Weber lab
- Établissement de nouveaux chercheurs universitaires, 2018-2020
 Fonds de recherche du Québec - Nature et technologies
 Cellular control of phase separation and organelle assembly
 PI: **Weber, S. C.**
 Amount: \$64,873
- John R. Evans Leaders Fund, Canada Foundation for Innovation 2018-2019
 Assembly and function of membraneless organelles
 PI: **Weber, S. C.**
 Amount: \$350,000
- Start-Up Funding, McGill University 2016-2019
 Spatial organization of living systems: from organelles to organisms
 PI: **Weber, S. C.**
 Amount: \$120,000

Publications (Trainees' names are underlined)**Peer-reviewed journal articles**

1. Mouland, A. J., Parent, L., **Weber, S. C.**, and Holehouse, A. S. (2023) Virus Induced Membraneless Organelles and Biomolecular Condensates, *Journal of Molecular Biology* 435, 168213.
2. Boeynaems, S., Chong, S., Gsponer, J., Holt, L., Milovanovic, D., Mitrea, D. M., Mueller-Cajar, O., Portz, B., Reilly, J. F., Reinkemeier, C. D., Sabari, B.R., Sanulli, S., Shorter, J., Sontag, E., Strader, L., Stachowiak, J., **Weber, S. C.**, White, M., Zhang, H., Zweckstetter, M., Elbaum-Garfinkle, S., and Kriwacki, R. (2023) Phase Separation in Biology and Disease; Current Perspectives and Open Questions, *Journal of Molecular Biology* 435, 167971.
3. Sagan, S. M. and **Weber, S. C.** (2022) Let's phase it: viruses are master architects of biomolecular condensates, *Trends in Biochemical Sciences*, In Press.
4. Swain, P. and **Weber, S. C.** (2020) Dissecting the complexity of biomolecular condensates, *Biochemical Society Transactions* 48, 2591.
5. Ladouceur, A.-M.*, Parmar, B. S.*, Biedzinski, S., Wall, J., Tope, S. G., Cohn, D., Kim, A., Soubry, N., Reyes-Lamothe, R. and **Weber, S. C.** (2020) Clusters of bacterial RNA polymerase are biomolecular condensates that assemble through liquid-liquid phase separation, *Proceedings of the National Academy of Sciences* 117, 18540. *Equal contributions (Recommended by Faculty Opinions)

6. Samhadaneh, D. M., Mandl, G. A., Han, Z., Mahjoob, M., **Weber, S. C.**, Tuznik, M., Rudko, D. A., Capobianco, J. A. and Stochaj, U. (2020) Evaluation of lanthanide-doped upconverting nanoparticles for in vitro and in vivo applications, *ACS Applied Bio Materials* 3, 4358.
7. A, P. and **Weber, S. C.** (2019) Evidence for and against liquid-liquid phase separation in the nucleus, *Non-Coding RNA* 5, 50. (Journal cover)
8. **Weber, S. C.** (2017) Sequence-encoded material properties dictate the structure and function of nuclear bodies, *Current Opinion in Cell Biology* 46, 62.

Prior to appointment at McGill

9. Uppaluri, S., **Weber, S. C.**, and Brangwynne, C. P. (2016) Hierarchical size scaling during multicellular growth and development, *Cell Reports* 17, 345. (Recommended by Faculty Opinions)
10. Berry, J. M.*, **Weber, S. C.***, Vaidya, N., Haataja, M. and Brangwynne, C. P. (2015) RNA transcription modulates phase transition-driven nuclear body assembly, *Proceedings of the National Academy of Sciences* 112, E5237. *Co-first authors
11. **Weber, S. C.**, and Brangwynne, C. P. (2015) Inverse size scaling of the nucleolus by a concentration-dependent phase transition, *Current Biology* 25, 641. (Recommended by Faculty Opinions)
12. **Weber, S. C.**, and Brangwynne, C. P. (2012) Getting RNA and protein in phase, *Cell* 149, 1188.
13. **Weber, S. C.**, Thompson, M. A., Moerner, W. E., Spakowitz, A. J. and Theriot, J. A. (2012) Analytical tools to distinguish the effects of localization error, confinement and medium elasticity on the velocity autocorrelation function, *Biophysical Journal* 102, 2443.
14. **Weber, S. C.**, Spakowitz, A. J. and Theriot, J. A. (2012) Nonthermal ATP-dependent fluctuations contribute to the *in vivo* motion of chromosomal loci, *Proceedings of the National Academy of Sciences* 109, 7338.
15. **Weber, S. C.**, Theriot, J. A. and Spakowitz, A. J. (2010) Subdiffusive motion of a polymer composed of subdiffusive monomers, *Physical Review E* 82, 011913.
16. **Weber, S. C.**, Spakowitz, A. J. and Theriot, J. A. (2010) Bacterial chromosomal loci move subdiffusively through a viscoelastic cytoplasm, *Physical Review Letters* 104, 238102.

Book chapters

1. Parmar, B. S. and **Weber, S. C.** (2023) Single molecule tracking of RNA polymerase in and out of condensates in live bacterial cells, *Methods in Molecular Biology* 2563, 371.

Non-refereed publications

1. Stochaj, U. and **Weber, S. C.** (2020) Nucleolar organization and functions in health and disease, *Cells* 9, 526.
2. Biedzinski, S.* , Parmar, B. S.* , and **Weber, S. C.** (2020) Beyond equilibrium phase diagrams: Enzymatic activity shakes up bacterial condensates, *Molecular Cell* 79, 205.
*Equal contributions

Prior to appointment at McGill

3. **Weber, S. C.** and Theriot, J. A. (2010) Mu gets in the loop, *Molecular Cell* 39, 1.

Invited Talks**Research conferences and workshops**

1. Biology and Physics of the Prokaryotic Chromosome, Lorentz Center Workshop, Leiden, the Netherlands 2023
2. Mechanisms of Microbial Transcription, Gordon Research Conference, Manchester, US
3. The Physical Basis of Cellular Memory and Adaptation, Bellairs Research Institute, Holetown, Barbados
4. Biomolecular condensates: Emerging cellular and biophysical roles, Keystone Symposium, Vancouver, Canada
5. Fluctuations and Disorder in Condensed Matter, Canadian Association of Physicists, Hamilton, Canada 2022
6. Structure and Organization in Biology, Carnegie Institution for Science, Baltimore, USA
7. Phase transitions in Biology and Disease, Telluride, USA
8. Microbial Transcription Seminar, Virtual
9. Condensate Colloquium Series, Virtual
10. Biological Assemblies: Phase transitions and more, Seville, Spain 2021
11. Gordon Research Conference, Stochastic Physics in Biology, Ventura, USA
12. Active Coacervates Workshop, New York, USA
13. Single-Molecule Bacteriology Symposium, Oxford, UK
14. Biology and Physics of Bacterial Chromosome Organization, Leiden, The Netherlands
15. Phase Separated Systems in the Nucleus, Indian Institute of Science Education and Research, Pune, India
16. Liquid Phases, Spatial Genome Organization, and Transcription, American Physical Society March Meeting, USA

17. Quantitative Biology Canada, Canada
18. Bacterial and Archaeal Cell Organization, Cell Bio Virtual 2020, USA 2020
19. Dynamic Modes of Cellular Compartmentalization,
Cell Bio Virtual 2020, USA
20. Chromosomes, Condensates and Transcriptional Control,
Center for the Physics of Biological Function, New York, USA
21. On Being the Right Size, Theory and Modeling of Living Systems,
Emory University, Atlanta, USA
22. Next Generation Biophysics Symposium,
MRC Laboratory of Molecular Biology, Cambridge, UK
23. Physical Biology of the Cell, Marine Biological Laboratory, Woods Hole, USA
- Cancelled due to COVID-19:*
Spatial Organization of Biological Functions, Bangalore, India
Single Molecule Approaches to Biology, Castelldefels, Spain
Canadian Developmental Biology Conference, Banff, Canada
Phase Separation in Biology and Disease, Telluride, USA
24. Japanese-American-German Frontiers of Science Symposium, Kyoto, Japan 2019
25. MechanoChemBio Conference, Montreal, Canada
26. Dresden International PhD Program Retreat, Prague, Czech Republic
27. Cellular Dynamics and Models, CSH Laboratory, Cold Spring Harbor, USA
28. Key Challenges in Biophysics, Munich, Germany 2018
29. Liquid Liquid Phase Separation in Cells,
Centre Européen de calcul atomique et moléculaire, Lausanne, Switzerland
30. The Physical Basis of Cellular Memory and Adaptation,
Bellairs Research Institute, Holetown, Barbados
31. Building the Cell, American Society for Cell Biology, Philadelphia, USA 2017
32. Montreal Area Phase Separation Seminar and Discussion Series,
Montreal, Canada
33. q-bio Conference, Rutgers University, New Brunswick, USA
34. The Physical Basis of Cellular Memory and Adaptation,
Bellairs Research Institute, Holetown, Barbados
35. Cell Organization and Behavior at Multiple Length Scales, 2016
Allen Institute for Cell Science, Seattle, USA
36. Nucleation Phenomena in Cell Biology, 2015
American Society for Cell Biology, San Diego, USA

Departmental seminars

1. Department of Biochemistry, McGill University, Montreal, Canada 2023
2. Department of Biology, Indiana University, Bloomington, USA
3. Department of Physics, Concordia University, Montreal, Canada 2022
4. Department of Molecular Biosciences, University of Texas, Austin, USA
5. Department of Biology, Syracuse University, Syracuse, USA
6. Institut de Recherches Cliniques de Montréal, Montreal, Canada
7. Bio-Kolloquium, Karlsruhe Institute of Technology, Karlsruhe, Germany
8. Department of Genetics, University of Cambridge, Cambridge, UK 2021
9. Institute of Systems, Molecular and Integrative Biology,
University of Liverpool, Liverpool, UK
10. Department of Molecular Biology and Biochemistry,
Simon Fraser University, Burnaby, Canada
11. Basel Computational Seminar, Biozentrum, Basel, Switzerland
12. Department of Molecular Biology and Biophysics,
University of Connecticut Health, Farmington, USA
13. Department of Biology, Saint Louis University, Saint Louis, USA
14. Quantitative Biology, University of California San Diego, San Diego, USA
15. Department of Cell Biology, University of Alberta, Edmonton, Canada
16. Lady Davis Institute for Medical Research, Montreal, Canada
17. Department of Pharmacology, McGill University, Montreal, Canada 2020
18. Department of Physics, University of Illinois at Chicago, Chicago, USA
19. Department of Biology, New York University, New York, USA
20. Department of Biological Sciences, Wayne State University, Detroit, USA
21. Department of Chemistry, McGill University, Montreal, Canada
22. Department of Biology, University of Rochester, Rochester, USA 2019
23. Department of Biophysics and Biophysical Chemistry,
Johns Hopkins University, Baltimore, USA
24. Chemical and Physical Sciences, U of T Mississauga, Mississauga, Canada 2018
25. Cell and Systems Biology, University of Toronto, Toronto, Canada
26. Physics Colloquium, McGill University, Montreal, Canada
27. Cellular and Molecular Medicine, University of Ottawa, Ottawa, Canada
28. Department of Physics, University at Buffalo, Buffalo, USA
29. Institute for Research in Immunology and Cancer,
Université de Montréal, Montreal, Canada

30. Molecular Medicine, The Hospital for Sick Children, Toronto, Canada 2017
31. Department of Biology, Concordia University, Montreal, Canada
32. Center for Applied Mathematics in Bioscience and Medicine,
Montreal, Canada
33. Department of Biochemistry and Molecular Biology,
University of Miami, Miami, USA
34. Département de Biochimie, Université de Montréal, Montreal, Canada 2016
35. Department of Anatomy and Cell Biology, McGill University,
Montreal, Canada

Trainee presentations

1. McGuinness, B., The Ecological Society of America, Portland, US, talk 2023
2. Baldini, L., International *C. elegans* Conference, Glasgow, Scotland, poster
3. Zdanovskis, S., International *C. elegans* Conference, Glasgow, Scotland, poster
4. Baldini, L., 2023 Québec *C. elegans* Meeting, Montréal, Canada, poster
5. McGuinness, B., Higher Order Interactions in Ecological Networks, Paris,
France, talk
6. A, P., Workshop on Cellular Memory and Adaptation, Holetown, Barbados, talk
7. McGuinness, B., Department Day, Montreal, Canada, talk
8. Philipp, L., Department Day, Montreal, Canada, talk
9. Baldini, L., Molecular retreat, Montreal, Canada, poster
10. Zdanovskis, S., Montreal Area Worm Meeting, Montreal, Canada, talk 2022
11. A, P., Ribosome Synthesis, EMBO Workshop, Engelberg, Switzerland, poster
(The RNA Society Poster Award)
12. A, P., Interdisciplinary Origin of Life Meeting, Montreal, Canada, talk
13. Parmar, B. S., Single Molecule Approaches to Biology,
Gordon Research Conference, Castelldefels, Spain, talk
14. Philipp, L., Workshop on Cellular Memory and Adaptation,
Holetown, Barbados, talk
15. Philipp, L., Blue Sky Day, Montreal, Canada, poster
16. Parmar, B. S., Biophysical Society of Canada, Halifax, Canada, talk 2021
(Trainee Paper Award)
17. A, P., American Society for Cell Biology, International/remote, poster 2020
18. Wall, J., American Society for Cell Biology, International/remote, poster
19. Parmar, B. S., Intrinsically Disordered Proteins Special Interest Group,
International/remote, invited talk

20. Couture, M., Departmental retreat, Montreal, Canada, poster
21. A, P., Departmental retreat, Montreal, Canada, poster
22. Parmar, B. S., Departmental retreat, Montreal, Canada, talk
23. Couture, M., Departmental retreat, Montreal, Canada, poster 2019
24. Parmar, B. S., Montreal Area Phase Separation Symposium, Montreal, Canada, talk
25. A, P., Innovation Incubator, Molecular and Cellular Biophysics Center, Montreal, Canada, talk
26. Parmar, B. S., Innovation Incubator, Molecular and Cellular Biophysics Center, Montreal, Canada, talk (Best Talk Award)
27. Mohapatra, L., American Physical Society, Boston, USA, poster
28. Parmar, B. S., Gordon Research Conference, Ventura, USA, poster
29. Kim, A., Montreal Area Phase Separation Symposium, Montreal, Canada, poster (Best Poster Award) 2018
30. Parmar, B. S., Workshop on Cellular Memory and Adaptation, Holetown, Barbados, talk
31. Ladouceur, A.-M., Departmental retreat, Montreal, Canada, talk
32. Mohapatra, L., American Society for Cell Biology, Philadelphia, USA, poster 2017
33. Ladouceur, A.-M., American Society for Cell Biology, Philadelphia, USA, poster
34. Ladouceur, A.-M., Biophysical Society of Canada, Montreal, Canada, poster

Teaching

Undergraduate courses

Course	Role	Term	Enrollment	Hours
BIOL/BIEN 219	Instructor	F2022	97	14
Introduction to Physical Molecular and Cellular Biology	Coordinator	F2021	137	14
	Coordinator	F2020	135	13
	Coordinator	F2018	56	11
	Instructor	F2017	57	11

BIOL 313	Coordinator	W2023	55	39
Eukaryotic Cell Biology	Coordinator	W2022	53	39
	Coordinator	W2021	37	39
	Coordinator	W2020	44	39
	Coordinator	W2019	42	39
	Coordinator	W2018	33	39
	Instructor	W2017	41	20
BIOL 395	Guest Lecturer	F2022	49	1
Quantitative Biology Seminar	Guest Lecturer	F2021	37	1
	Guest Lecturer	F2020	74	1
	Guest Lecturer	F2018	55	1
	Guest Lecturer	F2017	16	1
	Guest Lecturer	F2016	13	1
BIOL 551	Guest Lecturer	W2020	18	1
Principles of Cellular Control	Guest Lecturer	W2018	15	1

Graduate courses

Course	Role	Term	Enrollment	Hours
BIOL 601	Guest Lecturer	F2022	36	2
Introduction to Graduate Studies in Biology	Guest Lecturer	F2021	35	1
BIOL 602	Guest Lecturer	W2023	17	1
Molecular Biology Research and Professional Skills				

Course development

BIOL/BIEN 219 Introduction to Physical Molecular and Cellular Biology

Created content for two learning modules (13 lectures)

Designed computational notebooks for tutorial

Developed new assessments, including quizzes, problem sets and case studies

BIOL 313 Eukaryotic Cell Biology

Redesigned 26 lectures by replacing textbook figures with primary data

Developed literature assignments and peer assessments

BIOL 601 Introduction to Graduate Studies in Biology

Consulted on syllabus and course design

Created content on Networking and Supervision (2 lectures)

Research supervision

Undergraduates

Student	Position	Year(s)
Alyssa Wu	COMP 400 Project in Computer Science	2023
Ruby Wei	BIOL 396 Independent Research	2023
Julia Forestell	BIOL 413 Independent Reading	2022
Anthony Miller-Smith	BIOL 413 Independent Reading	2022
Brooke Baker	BIOL 413 Independent Reading	2022
Cyril Haller	Undergraduate Research Trainee	2021-2022
Dylan Stermer	BIOL 413 Independent Reading	2021
Sara Zdanovskis	NSERC Undergraduate Student Research Award, BIOL 479 Honours Research, Science Undergraduate Research Award	2021-2022
Bora Dirilgen	Casual Research Assistant	2021
Dawson Phan	BIOL 413 Independent Reading	2021
Nathael Javorcik	BIOL 479 Honours Research	2020-2021
Lucas Philipp	Casual Research Assistant	2020
Krishiv Shah	BIOL 466 Independent Research, co-supervised by Chris Barrett	2020
Maja Milinkovic	Work Study	2020
James Wall	Casual Research Assistant, NSERC Undergraduate Student Research Award	2019-2021
Nitika Bikraj	Casual Research Assistant	2019-2021
Laura Wu	Volunteer	2019
Alyssa Trantino	BIOL 466 Independent Research	2019
Nester Nebesio	BIOL 413 Independent Reading	2019
Philip Siekierski	PHYS 449 Independent Research	2018
George Perlman	Volunteer, BIOL 466 Independent Research	2018-2019
Furaha Damien	Work Study	2018
Alice Lambert	BIOL 413 Independent Reading	2018
Matias Claus	Volunteer	2018-2019
Paul Pouzet	BIOL 413 Independent Reading	2017
Yichen He	BIOL 377 Independent Reading	2017
Hannah Burr	BIOL 468 Independent Research	2017
David Cohn	Science Undergraduate Research Award, NSERC Undergraduate Student Research Award	2017-2018
James Goldberg	Volunteer, BIOL 396 Independent Research, NSERC Undergraduate Student Research Award	2017-2018
Graydon Tope	Volunteer, BIOL 466 Independent Research	2016-2018
Albright Kim	Volunteer	2016-2018
Megan Couture	Volunteer, BIOL 468 Independent Research	2016-2018

Rotation students

Student	Program	Year
Lydia Hodgins	Quantitative Life Sciences	2023
Sean Moore	Quantitative Life Sciences	2023
Lucas Philipp	Quantitative Life Sciences	2022
Bianca Granato	Quantitative Life Sciences	2019
Brendon McGuinness	Quantitative Life Sciences	2018
Alex Diaz-Popkovich	Quantitative Life Sciences	2018

Graduate students

Student	Program	Years
Sara Zdanovskis	MSc, Biology	2022-present
	<i>Regulation of nucleolar assembly in early embryos</i>	
Lucas Philipp	PhD, Quantitative Life Sciences	2022-present
	<i>Chromosome structure in dinoflagellates</i>	
Carina Doyle	PhD, Biology (withdrawn)	2021-2022
	<i>Regulation of nucleolar assembly in dauer</i>	
Shadi Rajab	PhD, Biology	2021-present
	<i>Function of bacterial RNAP condensates</i>	
Brendon McGuinness	PhD, Quantitative Life Sciences	2019-present
	<i>Intracellular proteomic constraints on microbial communities</i>	
	Co-supervised by Fred Guichard	
Peng A	PhD, Biology	2019-present
	<i>Structure of the nucleolus during post-embryonic development</i>	
Megan Couture	MSc, Biology	2018-2020
	<i>Knockdown of the LINC complex perturbs nucleolar assembly</i>	
	Current position: Clinical Research Coordinator, Jewish General Hospital	
Baljyot Parmar	MSc, Biology; PhD, Physics	2017-present
	<i>Single molecule analysis of phase separation in bacteria</i>	

Postdoctoral fellows

Postdoc	Years
Omid Gholamalamdari, Ph.D.	2023-present
	<i>The role of nucleolar sub-compartmentalization in ribosome biogenesis</i>
Laeya Baldini, Ph.D.	2021-present
	<i>The nucleolus in aging and dormant worms</i>
Pinaki Swain, Ph.D.	2020-2021
	<i>Molecular dynamics simulations of biomolecular condensates</i>

Stefan Biedzinski, Ph.D. 2019-2021

Bacterial RNA polymerase condensates under acid stress

Anne-Marie Ladouceur, Ph.D. 2016-2019

Phase separation of RNA polymerase in E. coli

Current position: Assistant Director of Training & Education,
Advanced BioImaging Facility, McGill University

Graduate student supervisory committees

Student	Program	Years
Anthony Miller-Smith	Experimental Medicine, McGill	2023-present
Bao-An Chau	Microbiology and Immunology, McGill	2023-present
Cécilia Brancheriau	Biology, Concordia University	2023-present
Michelle Gut	Biozentrum, Universität Basel	2023-present
Larsen Iorgovits	Parasitology, McGill	2023-present
Nikolai Ho	Biology, McGill	2023-present
Ali Shariat-Panahi	Biochemistry, McGill	2022-present
Benjamin Rudski	Quantitative Life Sciences, McGill	2022-present
Priscila Medrano	Biology, McGill	2022-present
Nour Halaby	Biology, McGill	2022-present
Silma Subah	Biology, McGill	2022-present
Wendy Morgado-Gamero	Biology, McGill	2022-present
Maria Orozco	Biology, Concordia	2022-2023
Nada El Baba	Biology, McGill	2022-present
Hazel Shields	Biology, McGill	2022-present
Manolya Sag	Biochemistry, McGill	2022-present
Sonny Panichnantakul	Experimental Medicine, McGill	2021-present
Alexandra Paquette	Biology, McGill	2021-present
Tim Gemeinhardt	Experimental Medicine, McGill	2021-present
Madeline Shred	Biology, McGill	2020-present
Ibani Kapur	Experimental Medicine, McGill	2020-2022
Lisa Hanna	Biology, McGill	2020-present
Imge Ozugergin	Biology, Concordia University	2020-2022
Victoria Glynn	Biology, McGill	2020-present
Lucas Fisher	Biology, McGill	2020-2022
Siwei Chu	Physiology, McGill	2020-present
Celia Lopez	Biology, McGill	2019-present
Sofia Cruz Tetlalmatzi	Biomedical Engineering, McGill	2019-present
Aurelie Guisnet	Biology, McGill	2019-2022
Shannon Sim	Biology, McGill	2018-present
Weina Wang	Biology, McGill	2018-present

Claire Edrington	Biology, McGill	2017-2022
Bijan Gakieh	Biology, McGill	2019-2021
Conrad Hall	Biology, McGill	2018-2019
Muhammad Tabassum	Biology, McGill	2018-2019
Brandon Payliss	Biomedical Engineering, McGill	2017-2018
Ryan Dawson	Biology, McGill	2017-2018

Ph.D. qualifying exams

Student	Program	Year
Katherine Morelli	Biology, McGill	2022
Sebastian Wittekindt	Integrated Program in Neuroscience, McGill	2022
Alison Kem-Seng	Biology, McGill	2022
Lidice Gonzalez	Biochimie, Université de Montréal	2018
Srivasthan Adivarahan	Biochimie, Université de Montréal	2017
Nitin Kapadia	Biology, McGill	2016
David Rozema	Biology, McGill	2016

Ph.D. thesis evaluations

Student	Program	Year
Nicolas Jolivet	Sciences de la Biologie, Institut National de la Recherche Scientifique	2023
Felix Proulx-Giraldeau	Physics, McGill	2023
Lidice Gonzalez	Biochimie, Université de Montréal	2022
James Dhaliwal	Biology, Concordia	2021
Stephanie Yee	Biology, McGill	2019
Kristian Shulist	Biology, McGill	2018

Ph.D. thesis defenses

Student	Program	Year
William Brothers	Experimental Medicine, McGill	2023
Matthew Frick	Physics, McGill	2023
Imge Ozugergin	Biology, Concordia	2022
Arjuna Rajakumar	Biology, McGill	2022
Yuki Kitahara	Microbiologie, Université de Montréal	2021
Sreeparna Pradhan	Integrated Program in Neuroscience, McGill	2020
Yony Bresler	Physics, McGill	2019
Kristine Bernard	Biology, McGill	2019

Pratik Kadekar	Biology, McGill	2018
Michelle Kowanda	Biology, McGill	2016

Service

Service to the department and faculty

Departmental committees

Equity, Diversity and Inclusion Committee Working to advance a departmental climate that is fair, open, diverse and equitable	2022-present
Graduate Experience Task Force Consulting with students and faculty to improve the recruitment, training and funding of Biology graduate students	2020-present
Biology Teaching Task Force Developed resources for remote teaching and provided support to faculty during the COVID-19 pandemic	2020-2022
Curriculum Revision Task Force Developed recommendations for changes to the content and organization of the Biology undergraduate curriculum	2018-2020
Graduate Training Committee Chaired qualifying exam committees; allocated prizes and awards; revised graduate program website	2017-2018

Faculty committees

Faculty of Science Inclusive Teaching Initiative Worked with a small group of instructors to learn and develop strategies to promote inclusive and anti-racist classroom environments	2022-2023
Canada Excellence Research Chair Search Committee Transient Astrophysics	2022
Fall 2020 Planning Committee Contributed to discussions and planning for remote delivery and assessment during the COVID-19 pandemic	2020

Non-committee service

McGill Biology Student Union Symposium Served as an invited speaker	2021
McGill Physics Hackathon Served as a project judge	2020

Ada Lovelace Day Brunch	2019
Served as an invited panelist for a discussion on women in STEM, sponsored by McGill Women in Physics and McGill Women in Computer Science	
Department Day	2019
Served as a poster judge for this student-organized research symposium	
Beer with a Prof	2018
Met with undergraduate students for a casual conversation as part of the McGill Biology Student Union's Career Week	
Scientists Talk about Research for Staff (STARS)	2018
Presented a research talk to McGill support staff	
Molecular Biology Student Symposium	2016, 2017
Served as a judge for posters and talks	
Soup and Science	2016, 2021
Presented a research talk and answered questions from undergraduate students	

Service to the University

University committees

Quantitative Life Sciences (QLS) Steering Committee	2019-present
Contributing to discussions on the long-term vision of the interdisciplinary PhD program	
Molecular and Cellular Biophysics Center Executive Committee	2018-present
Organizing events to foster interactions among researchers and to spur interdisciplinary collaborations	
QLS Fellowships and Awards Committee	2017-2018
Reviewed and ranked student applications	

Non-committee service

Living Library, Office of Science Education	2020
Participated in a discussion on Strategies for the First Day of Class	
Education Champions, Faculty of Medicine	2020
Served as a guest speaker on creating whiteboard animations for remote delivery	
Pro-dean for Ph.D. thesis defenses	2019
Emily Grise, Urban Planning Prabakaran Balasubramanian, Mechanical Engineering	
Breakfast with female graduate students	2018
Participated in a networking event organized by students in the Quantitative Life Sciences program	

Office of Sponsored Research Information Session Served as an invited speaker on successful grant-writing strategies	2018
Science Undergraduate Society Wine and Cheese Served as an invited speaker for a networking cocktail	2018
Bellini Life Sciences Complex 10th Anniversary Symposium Served as a poster judge	2018
McGill Integrative Bioscience Society Research Symposium Served as a guest speaker	2017, 2021

Service to the wider scholarly community

Peer review

International funding agencies

European Research Council, External Referee Starting Grants (1 grant)	2021
National Science Foundation (USA), External Reviewer CAREER Award (1) Cellular Dynamics and Function (1)	2020 2017

National grant panels

CIHR Project Grant Program, External Reviewer Cell Biology (1)	2022
NSERC Discovery Grants Program, External Reviewer Genes, Cells and Molecules Evaluation Group (1) Physics Evaluation Group (1)	2021 2020
NSERC Scholarships & Fellowships Committee, Member Cellular and Molecular Biology (40-60 scholarships/competition)	2018-2022
CIHR Project Grant Peer Review Panel, Member Biochemistry & Molecular Biology - B (6-9 grants/competition)	2018-2021

Journals

Biochemistry (1 manuscript)
Biophysical Journal (4)
Cell (2)
Journal of Biological Chemistry (1)
Journal of Molecular Biology (3)
Molecular Cell (2)
Nature Physics (1)

Science (1)

Science Advances (1)

Soft Matter (1)

The EMBO Journal (1)

Trends in Biochemical Sciences (1)

Trends in Cell Biology (1)

Faculty Opinions

Faculty Member, Cellular Biological Physics Section 2020-present

Editorial work

Co-guest editor for the *Journal of Molecular Biology* 2022
 Special issue on Viruses and Phase Separation, with Andrew Mouland,
 Leslie Parent and Alex Holehouse

Co-guest editor for *Cells* 2019
 Special issue on the Nucleolus in Health and Disease, with Ursula Stochaj

Conference organization

BactoMontréal 2022
 Co-organized a local half-day meeting dedicated to research
 on the mechanisms of bacterial life

Bacterial Cell Organization 2019-2021
 Created and co-organized a special interest subgroup at the
 American Society for Cell Biology's Annual Meeting;
 Recruited and mentored early career scientists to run the subgroup
 in subsequent years

Building the Cell 2017
 Co-organized a special interest subgroup at the American Society
 for Cell Biology's Annual Meeting

Montreal Area Phase Separation Seminar and Discussion Series 2017-present
 Co-created a local meeting for investigators and trainees to share
 and discuss recent advances in the field

Mentorship and outreach

Win4Science 2022-present
 Serving as a mentor to female graduate students and postdocs

Physics Matters Lecture Series 2022
 Served as an invited speaker for a public lecture

STEMNet	2021-present
Serving as a mentor to undergraduate students	
The Soft Matter Show	2021
Served as an invited guest on a podcast featuring conversations with soft matter scientists	
Dialogue on Droplets	2020
Served as an invited speaker for a public lecture sponsored by the Center for Physics of Biological Function, a joint effort between the City University of New York and Princeton University	
Canadian Society for Molecular Biosciences	2019
Served as an invited panelist for a career workshop	
Science Literacy Week	2017-2019
Served as a mentor to female undergraduates in STEM fields	
Career Discussion and Mentoring Roundtables	2015, 2017
Served as a table leader at the American Society for Cell Biology's Annual Meeting, on the topics of Teaching and Research in PUIs and Applying for an Academic Faculty Position	