

RESEARCH INTERESTS	Antimicrobial resistance, infectious disease epidemiology, public health policy, vector-borne diseases, species distribution modelling, mathematical modelling
EDUCATION	<p>University of Toronto, Toronto, ON, Canada September 2018 - Present PhD Epidemiology</p> <ul style="list-style-type: none">• Adviser: David N. Fisman <p>McGill University, Montreal, QC, Canada September 2016 - August 2018 MSc Epidemiology</p> <ul style="list-style-type: none">• Thesis: “Antibiotic resistance in urinary <i>Escherichia coli</i> in Quebec, Canada”• Advisers: David L. Buckeridge & Caroline Quach• CGPA: 4.0 <p>University of Ottawa, Ottawa, ON, Canada September 2011 - April 2016 Honours BSc in Biology (Ecology, Evolution, Behaviour Option), Minor in Mathematics</p> <ul style="list-style-type: none">• Thesis: “Ecological niche modelling of the tick vector of Lyme disease from passive surveillance data in Ottawa, Ontario” (John B. Armstrong Award for Best Thesis Poster)• Summa Cum Laude & Faculty Plaque (Highest standing in honours biology) (CGPA: 9.69/10)
RESEARCH & TEACHING EXPERIENCE	<p>University of Toronto, Toronto, ON January 2019 - April 2019 <i>Teaching assistant</i></p> <ul style="list-style-type: none">• Teaching assistant for a master’s level epidemiology methods course. Facilitated discussion-based tutorials, worked with students to develop a research protocol, and volunteered to teach an exam review session. <p>McGill University, Montreal, QC September 2016 - August 2018 <i>Graduate student</i></p> <ul style="list-style-type: none">• Obtained ethics board approval to study risk factors for antimicrobial resistance in urinary <i>E. coli</i> isolates using data from several Quebec hospitals. Studied temporal patterns of antimicrobial resistance in relation to antimicrobial use in Montreal. <p><i>Guest lecturer</i> October 2016</p> <ul style="list-style-type: none">• Delivered two guest lectures on the mathematical modelling of infectious diseases for a graduate-level infectious disease epidemiology course. <p>University of Ottawa, Ottawa, ON May 2014 - August 2016 <i>Research assistant</i></p> <ul style="list-style-type: none">• Conducted lab, field, and computer modelling research under four supervisors in the fields of infectious disease epidemiology, ecology, and evolutionary biology. Resulted in a first author publication on Lyme disease and a joint first author publication on bacterial ecology. <p><i>Teaching assistant</i> January 2016 - April 2016</p> <ul style="list-style-type: none">• Teaching assistant for a third-year population and community ecology course. Led lab exercises, graded exams, and answered student questions.

SCHOLARLY &
PROFESSIONAL
ACTIVITIES

Leadership

Doctoral Epidemiology Training Association, Toronto, ON

Education committee co-chair

April 2019 - Present

- Responsible for the organization of events to help develop the academic and professional skills of doctoral students in the epidemiology program.

Division of Epidemiology curriculum committee representative

April 2019 - Present

- Student representative for the epidemiology doctoral program to the curriculum committee.

First year representative

September 2018 - April 2019

- Assisted with the organization of a monthly journal club and other events.

McGill Epidemiology, Biostatistics, and Occupational Health Student Society, Montreal, QC

President

October 2017 - September 2018

- Represented a department of approximately 250 graduate students and postdoctoral fellows.
- Led council, attended departmental meetings, and advocated for students.
- Organized events including a departmental Research Day conference, a Career Day, and numerous seminars, social events, and other academic programs.

MSc Epidemiology program representative

October 2016 - September 2017

- Attended curriculum committee meetings, designed and distributed a program survey, organized a seminar, and assisted with planning the department's Research Day conference.

Current Events Epidemiology Journal Club, Montreal, QC

Organizer

March 2017 - August 2018

- Organized a monthly journal club exploring science communication through the examination of research behind recent epidemiology-related headlines.

Editorial Boards

McGill Journal of Medicine (McGill University)

September 2017 - August 2018

Section editor

- In the role of editor and proofreader, guided submitted articles through the editorial and peer-review processes using Open Journal Systems.

Reviewer

- CMAJ (2018)
- PLOS ONE (2017)

Student Seminars

- **Epidemiology, Biostatistics and Occupational Health Applied Methods Discussion Group** (McGill University, 2017–2018): Presenter (*Introduction to Time Series Analysis*) and participant in a monthly seminar/discussion group.

SCHOLARSHIPS &
AWARDS

Vanier Canada Graduate Scholarship: \$150,000 (2019–2022)

Ontario Graduate Scholarship: \$15,000 (2018–2019)

Max E. Binz Fellowship (McGill University, Faculty of Medicine): \$10,000 (2017–2018)

Canadian Institutes of Health Research Canada Graduate Scholarship - Master's: \$17,500 (2016–2017)

NSERC Undergraduate Student Research Award: \$6,000 per award (2014, 2015)

Undergraduate Research Opportunity Program (University of Ottawa): \$1,000 (2015)

REFEREED
PUBLICATIONS

Articles

Soucy, J-PR, Schmidt, AM, Frenette, C, Dolcé, P, Boudreault, AA, Buckeridge, DL, Quach, C. 2019. Joint modelling of resistance to six antimicrobials in urinary *Escherichia coli* isolates in Quebec, Canada. *Antimicrobial Agents and Chemotherapy*. 63 (7): e02531–18. doi: [10.1128/AAC.02531-18](https://doi.org/10.1128/AAC.02531-18).

Soucy, J-PR, Kutcher, SA, MacLean, E, Sewitch, MJ. 2019. You only die twice. *American Journal of Public Health*. 109 (1): e9. doi: [10.2105/AJPH.2018.304822](https://doi.org/10.2105/AJPH.2018.304822).

Soucy, J-PR, Slatculescu, AM, Nyiraneza, C, Ogden, NH, Leighton, PA, Kerr, JT, Kulkarni, MA. 2018. High-resolution ecological niche modelling of *Ixodes scapularis* ticks based on passive surveillance data at the northern frontier of Lyme disease emergence in North America. *Vector-Borne and Zoonotic Diseases*. 18 (5): 235–242. doi: [10.1089/vbz.2017.2234](https://doi.org/10.1089/vbz.2017.2234)

Soucy, J-PR. 2017. Cats, rabbits, birds, and viruses, oh my! Modelling the conservation implications of a complex virus release in a predator–prey system. *Society for Industrial and Applied Mathematics Undergraduate Research Online*. 10: 40–64. doi: [10.1137/16S015553](https://doi.org/10.1137/16S015553)

Kraemer, SA, **Soucy, J-PR**^{*}, Kassen, R. 2017. Antagonistic interactions of soil pseudomonads are structured in time. *FEMS Microbiology Ecology*. 93 (5): fix046. doi: [10.1093/femsec/fix046](https://doi.org/10.1093/femsec/fix046) [***Joint first author**]

Book Chapters

Soucy, J-PR, Tomayer, A, Veilleux-Gravel, E, Fleming, K. Part of Your World: Mermaids and Where to Find Them^{*}. In: E. Waters and RJ Smith? (eds), *Monster Math*, University of Ottawa Press, [in press](#). [***Introduction to species distribution modelling**]

ORAL
PRESENTATIONS

Soucy, J-PR. Joint modelling of resistance to six antimicrobials in urinary *Escherichia coli* isolates in Quebec, Canada. *Microbiology & Infectious Diseases Research Days*; 2019 June 3; University of Toronto; Toronto, CA.

Soucy, J-PR. Model-based methods for cumulative antibiograms with applications in urinary tract infections. *Epidemiology Doctoral Seminar Series*; 2019 February 28; University of Toronto; Toronto, CA.

Soucy, J-PR. Multivariate modelling of resistance to six antimicrobials in urinary *Escherichia coli* isolates in Quebec, Canada. *Research and Practice Day*; 2018 November 9; University of Toronto; Toronto, CA.

Soucy, J-PR. Modelling environmental risk of Lyme disease using passive tick surveillance in Ontario. *14th Annual EBOH Student Research Day*; 2018 March 17; Montreal Neurological Institute; Montreal, CA. [**2nd place oral presentation award**]

POSTER
PRESENTATIONS

Soucy, J-P, Kerr, J, Kulkarni, M. Ecological niche modelling of the tick vector of Lyme disease from passive surveillance data in Ottawa, Ontario. *Biology Honours Thesis Poster Session*; 2016 April 28; University of Ottawa; Ottawa, CA.

Soucy, J-P, Kraemer, S, Kassen, R. Spatial, temporal, and genetic factors influencing antagonistic interactions in *Pseudomonas* soil isolates. *Undergraduate Research Opportunity Symposium*; 2015 April 2; University of Ottawa; Ottawa, CA.

OTHER WRITING **Soucy, J-PR.** 2018. What makes ticks tick? Using your tick encounters to predict Lyme disease risk. [McGill Blogs](#).

OTHER PRESENTATIONS **Soucy, J-PR.** Let's Target Lyme: Busting Myths. Barrie Canoe And Kayak Club; 2019 April 8; Barrie, CA.

Soucy, J-PR. A conversation about Lyme Disease. Elora Cataract Trailway Association AGM; 2019 March 24; Elora, CA.

Soucy, J-PR. Lyme disease: Causes, prevention, detection, and treatment. Hike Ontario Summit; 2018 September 29; Orillia, CA.

Soucy, J-PR. Lyme disease: Panel discussion. Hike Ontario Summit; 2016 October 1; Perth Golf Course; Perth, CA.

Soucy, J-PR. What microbes do. Presentation to 4U biology class; 2015 February 17; Centre Wellington District High School; Fergus, CA.

VOLUNTEER EXPERIENCE

Children's Hospital of Eastern Ontario, Ottawa, ON **January 2016 - July 2016**

Clinical research assistant (SUPPORT program)

- Acted as a first point of contact for clinical research in the Emergency Department.
- 4 hrs/week: Screened patients for eligibility in clinical studies, spoke to families and patients about enrolment, and collected research data.

Language Aid Project Canada, Ottawa, ON **December 2015 - May 2016**

Language tutor

- Worked one-on-one with a recent immigrant to improve conversational language skills.

SKILLS & TRAINING Computer

- Programming & statistics: R, SQL. Some experience with Python, MATLAB, and Stata.
- GIS: ArcGIS, R, QGIS.
- Typesetting: LaTeX.

Writing

- Completed a 9 hour "Introduction to Science Journalism" course, taught by a science reporter for the Globe & Mail (2019)