Dr. Landon J. Getz

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Education

Department of Biochemistry, University of Toronto, Postdoctoral Fellow — 2022 - *Present*
Supervisor: Dr. Karen Maxwell, *Department of Biochemistry*

Faculty of Medicine, Dalhousie University, Ph.D. (Microbiology & Immunology) — 2017 - 2022
Supervisor: Dr. Nikhil Thomas, Department of Microbiology and Immunology

Cold Spring Harbor Laboratory, Advanced Bacterial Genetics Course — 2019

Faculty of Science, Dalhousie University, B.Sc. Honours (Microbiology & Immunology) — 2013 - 2017
First Class Honours - cGPA > 3.7
Department of Microbiology and Immunology Honours Student Research Prize

Faculty of Science, Dalhousie University, Certificate in Genetics — 2017

Publications

424 citations, H-index: 12 (Google Scholar, October 2026)

Career Total (Published): 19

Peer-Reviewed Journal Articles

Corresponding Author[#] | Equal Contribution[*] (ordered alphabetically by last name)

20. Vander Zee, A., Taylor, V.L., Kim, M.B., Natarajan, A., Myers, C., Kion-Crosby, W., **Getz, L.J.**, Wackenreuter, J., Arampatzi, P., Gräfenham, T., Faber, F., Barquist, L., Maxwell, K.L. (2026). Bacterial antiviral immunity is a coordinated population-level response. *Nature Communications*. *Under review*

19. **Getz, L.J.**, Fairburn, S.R., Maxwell, K.L.[#] (2026). Molecular control of bacterial immunity. *Nature Structural and Molecular Biology*. DOI: 10.1038/s41594-026-01901-9

18. **Getz, L.J.***, Qian, A.L.*, Liu, Y.V., Fairburn, S.R., Butt, M.S., Lee, Y-J., Weigele, P.R., Maxwell, K.L.[#] (2026). Antiviral defence is a conserved function of diverse bacterial DNA glycosylases. *Nature Microbiology*. DOI: 10.1038/s41564-026-02441-0

17. Patel, P.H., McCarthy, M., Taylor, V.L., Cole, G., Zhang, C., Edghill, M., **Getz, L.J.**, Fung, B., Moraes, T.F., Davidson, A.R., Norris, M.J.[#], Maxwell, K.L.[#] (2026). A pore-forming antiphage defence is activated by oligomeric phage proteins. *Nature*. DOI: 10.1038/s41586-025-10075-1

16. Serrador, D., **Getz, L.J.**, Cao, K.Y., Campbell, J.R., Kaul, R., Navarre, W.W.[#] (2025). Complete genome sequences of six *Lactobacillus iners* strains isolated from Kenyan women. *Microbiology Resource Announcements*. DOI: 10.1128/mra.00759-25

15. Serrador, D., Campbell, J.R., **Getz, L.J.**, Cheung, D., Shefraw, G., Kaul, R., Navarre, W.W.[#] (2025). Practical media formulations for rapid growth of *Lactobacillus iners* and other vaginal bacteria. *Applied and Environmental Microbiology*. DOI: 10.1128/aem.00183-25

14. **Getz, L.J.***, Patel, P.*, Maxwell, K.L.[#] (2025). A Solution to the Post-Antibiotic Era: Phages as Precision Medicine. *Current Opinion in Microbiology*. DOI: 10.1016/j.mib.2025.102613

13. **Getz, L.J.***, Robinson, O.*, Thomas, N.A.[#] (2025). Functional genomics of chitin degradation by *Vibrio parahaemolyticus* reveals finely integrated metabolic contributions to support environmental fitness. *PLoS Genetics*. DOI: 10.1371/journal.pgen.1011370

12. **Getz, L.J.**, Fairburn, S.R., Liu, Y.V., Qian, A.L., Maxwell, K.L.[#] (2025). Integrons are anti-phage defence libraries in *Vibrio parahaemolyticus*. *Nature Microbiology*. DOI: 10.1038/s41564-025-01927-7

11. **Getz, L.J.**, Maxwell, K.L.# (2024). Diverse anti-phage defences are widespread among prophages and mobile genetic elements. *Annual Review of Virology*. DOI: 10.1146/annurev-virology-100422-125123

10. Patel, P.H., Taylor, V.L., Zhang, C., **Getz, L.J.**, Fitzpatrick, A.D., Davidson, A.R., Maxwell, K.L.# (2024). Anti-phage defence through inhibition of virion assembly. *Nature Communications*. DOI: 10.1038/s41467-024-45892-x

9. **Getz, L.J.**, Brown, J.M., Sobot, L., Chow, A., Mahendrarajah, J., Thomas, N.A.# (2023). Attenuation of a DNA Cruciform by a Conserved Regulator Directs T3SS-1 Mediated Virulence in *Vibrio parahaemolyticus*. *Nucleic Acids Research*. DOI: 10.1093/nar/gkad370

8. **Getz, L.J.***, Kratzer, K.*, Peterlini, T., Masson, J-Y.#, Dellaire, G.# (2022). Addressing the dark matter of gene therapy: technical and ethical barriers to clinical application. *Human Genetics*. DOI: 10.1007/s00439-021-02272-5

7. **Getz, L.J.#**, Dellaire, G.# (2020). Back to Basics: Application of the Principles of Bioethics to Heritable Genome Interventions. *Science and Engineering Ethics*. DOI: 10.1007/s11948-020-00226-0

6. **Getz, L.J.**, Runté, C., Rainey, J., Thomas, N.A.# (2019). Tyrosine phosphorylation as a widespread regulatory mechanism in prokaryotes. *Journal of Bacteriology*. DOI: 10.1128/JB.00205-19

5. Thornbury, M.*, Sicheri, J.*, Slaine, P.D., **Getz, L.J.**, Finlayson-Trick, E.C.L., Cook, J., Guinard, C., Boudreau, N., Jakeman, D., Rohde, J.R., McCormick, C.# (2019). Characterization of novel lignocellulose-degrading enzymes from the porcupine microbiome using synthetic metagenomics. *PLoS One*. DOI: 10.1371/journal.pone.0209221

4. **Getz, L.J.**, Dellaire, G. (2018). Angels and Devils: Dual-Use in Biotechnology. *Trends in Biotechnology*. DOI: 10.1016/j.tibtech.2018.07.016

3. Runté, C., Jain, U., **Getz, L.J.**, Secord, S., Kuwae, A., Abe, A., Leblanc, J., Stadnyk, A.W., Kaper, J.B., Hansen, A.M., Thomas, N.A.# (2018). Tandem tyrosine phosphosites in the enteropathogenic *Escherichia coli* chaperone CesT are required for differential type III effector translocation and virulence. *Molecular Microbiology*. DOI: 10.1111/mmi.13948

2. **Getz, L.J.**, Thomas, N.A.# (2018). The Transcriptional Regulator HlyU is a Positive Regulator for Expression of *exsA* Leading to Type III Secretion System-1 Activation in *Vibrio parahaemolyticus*. *Journal of Bacteriology*. DOI: 10.1128/JB.00653-17

1. Finlayson-Trick, E.C.L.*, **Getz, L.J.***, Slaine, P.D.*, Thornbury, M., Lamourerux, E., Cook, J., Langille, M.G.I., Murray, L.E., McCormick, C., Rohde, J.R., Cheng, Z.# (2017). Taxonomic differences of gut microbiomes drive cellulolytic enzymatic potential within hind-gut fermenting mammals. *PLoS One*. DOI: 10.1371/journal.pone.0189404

Preprints

5. **Getz, L.J.***, Qian, A.L.*, Liu, Y.V., Fairburn, S.R., Butt, M.S., Lee, Y-J., Weigele, P.R., Maxwell, K.L. (2025). Antiviral defence is a conserved function of diverse DNA glycosylases. *BioRxiv*.

4. **Getz, L.J.***, Robinson, O.*, Thomas, N.A. (2024). Functional Genomics of chitin degradation by *Vibrio parahaemolyticus* reveals finely integrated metabolic contributions to support environmental fitness. *BioRxiv*.

3. **Getz, L.J.**, Brown, J.M., Sobot, L., Chow, A., Mahendrarajah, J., Thomas, N.A. (2022). Attenuation of a DNA Cruciform by a Conserved Regulator Directs T3SS-1 mediated virulence in *Vibrio parahaemolyticus*. *BioRxiv*.

2. Thornbury, M.*, Sicheri, J.*, Slaine, P., **Getz, L.J.**, Finlayson-Trick, E., Cook, J., Guinard, C., Boudreau, N., Jakeman, D., Rohde, J., McCormick, C. (2018). Discovery and Characterization of Novel Lignocellulose-Degrading Enzymes from the Porcupine Microbiome. *BioRxiv*.

1. Runté, C., Jain, U., **Getz, L.J.**, Secord, S., Kuwae, A., Abe, A., Leblanc, J., Stadnyk, A.W., Kaper, J.B., Hansen, A.M., Thomas, N.A. (2018). Tandem tyrosine residues in the EPEC multicargo chaperone CesT support differential type III effector translocation and early host colonization. *BioRxiv*.

Theses

2. **Getz, L.J.** (2022). Genome-wide Investigation of *Vibrio parahaemolyticus* Type III Secretion System-1 Regulation and Chitin Metabolism. *Ph.D.*, Dalhousie University, Halifax, NS, Canada.

1. **Getz, L.J.** (2017). A Genetic Switch Controls the Type III Secretion System Master Regulator, ExsA, in *Vibrio parahaemolyticus* RIMD2210633. *B.Sc. (Hons)*, Dalhousie University, Halifax, NS, Canada.

Science Policy and Public Scholarship

21. di Cologna, N.M., Barnes, K.L., **Getz, L.J.**, Pérez-López, E., de Oliveira, B.F.R. (2026). Cultivating the Pride in Microbiology Network. *Trends in Microbiology*. DOI: 10.1016/j.tim.2026.05.005

20. **Getz, L.J.** (2024). Data Collection Bolsters Inclusivity of 2SLGBTQIA+ Scientists. *American Society for Microbiology*.

19. de Oliveira, B.F.R., **Getz, L.J.**, Pérez-López, E. (2023). The Pride in Microbiology Network: empowering 2SLGBTQIA+ microbiologists. *Applied Microbiology International's The Microbiologist*.

18. **Getz, L.J.**, de Oliveira, B.F.R., Pérez-López, E. (2023). We need a Pride in Microbiology Network. *Nature Microbiology*. DOI: 10.1038/s41564-023-01394-y

17. Qaiser, F., Laventure, A., Rilling, M., King, M., Johnson, C., Jakac-Sinclair, N., **Getz, L.J.**, Cartile, A., Boulanger, M.E., Ammendolia, J. (2023). When youth voices are heard, science shines brighter. *University Affairs*.

16. Baylis, F., **Getz, L.J.** (2021). Challenge studies for COVID-19: Now is still not the time. *JME Blog*.

15. **Getz, L.J.**, Baylis, F. (2021). Challenge studies for COVID-19: Now is not the time. *JME Blog*.

14. **Getz, L.J.**, Baylis, F. (2020). Canada should reject the idea of deliberately infecting vaccine volunteers. *PolicyOptions.ca*.

13. Baylis, F., **Getz, L.J.** (2020). Why federal government should reject human challenge trials for COVID-19 vaccine. *CBC Opinion*.

12. Qaiser, F., Morriseau, T., Rilling, M., Cartile, A., Sung, M., **Getz, L.J.**, Boulanger, M-E. (2020). Envisioning A Post-Pandemic Future in the Canadian Science Community: A Youth Perspective. *Canadian Science Policy Conference 2020*.

11. Baylis, F., **Getz, L.J.** (2020). Rush to risky challenge trials is unethical. *HealthyDebate.ca*.

10. **Getz, L.J.** (2020). Rushing coronavirus vaccines and treatments could do more harm than good. *TheConversation.ca*. Republished in Everything Zoomer and Dal News

9. Kofler, N., **Getz, L.J.**, Baylis, F., Dellaire, G. (2019). Genetically modifying mosquitoes to control the spread of disease carries unknown risks. *TheConversation.ca*. Republished in Salon, HalifaxToday.ca, SaltWire Newspapers, and Gannett Newspapers

8. **Getz, L.J.**, Dellaire, G. (2019). Moratorium on Human Genome Editing: Time to Get It Right. *The Hastings Center Forum Blog*.

7. **Getz, L.J.**, Dellaire, G. (2019). CRISPR gene editing: Why we need Slow Science. *TheConversation.ca*.

6. **Getz, L.J.** (2019). The 'Value' of Consumer DNA Sequencing. *Impact Ethics at Novel Tech Ethics*.

5. **Getz, L.J.**, Dellaire, G., Baylis, F. (2018). Jiankui He: A Sorry Tale of High-Stakes Science. *The Hastings Center Forum Blog*.

4. Baylis, F., Dellaire, G., **Getz, L.J.** (2018). Why we are not ready for genetically designed babies. *TheConversation.ca*. Reprinted in National Post and Halifax Chronicle Herald

3. **Getz, L.J.** (2018). Thicker Than Water: Slow Movement on Blood Policy. *Impact Ethics at Novel Tech Ethics*.

2. **Getz, L.J.** (2018). The Privacy Implications of Human DNA Sequencing. *Impact Ethics at Novel Tech Ethics*.

1. **Getz, L.J.** (2017). A Reflection on Blood Donation Policy in Canada. *Impact Ethics at Novel Tech Ethics*. Reprinted at the Kennedy Institute of Ethics Bioethics Blog

Abstracts

23. **Getz, L.J.***, Qian, A., Liu, Y.V., Fairburn, S., Butt, M., Lee, Y.-J., Weigele, P., Maxwell, K.L. (October, 2026). Structure-Guided Mining of *Vibrio* Integrons Reveals Novel Antiviral Immunity. Vibrio2026: The International Meeting on the Biology of Vibrios, Berlin, Germany.

22. **Getz, L.J.***, Qian, A., Liu, Y.V., Fairburn, S., Butt, M., Lee, Y.-J., Weigele, P., Maxwell, K.L. (June 2026). Structure-guided discovery of novel antiphage defence glycosylases. Annual Meeting of the Canadian Society of Microbiologists, CSM 2026, Edmonton, AB.

21. Mukund, V., **Getz, L.J.**, Maxwell, K.L, Frederickson, M. (2026). Adaptation for Phage Resistance Reduces Symbiotic Effectiveness of Rhizobia. 2026 Annual Conference of the Canadian Society for Ecology and Evolution, Toronto, ON.

20. **Getz, L.J.**, Fairburn, S.R., Liu, Y.V., Qian, A.L., Maxwell, K.L. (2025). Integrons are Anti-Phage Defence Libraries in *Vibrio parahaemolyticus*. 74th Annual Canadian Society of Microbiologists Annual Conference, Montreal, QC.

19. **Getz, L.J.**, Fairburn, S.R., Liu, Y.V., Qian, A.L., Maxwell, K.L. (2024). Integrons are anti-phage defence libraries in *Vibrio parahaemolyticus*. EMBO Workshop: The Immune System of Bacteria, Paris, France.

18. **Getz, L.J.**, Robinson, O., Thomas, N.A. (2024). Discovery of a novel single channel chitoporin required for *Vibrio* spp. environmental fitness. Vibrio2024: The International Meeting on the Biology of Vibrios, Lima, Peru.

17. **Getz, L.J.**, Qian, A.L., Fairburn, S.R., Liu, Y.V., Maxwell, K.L. (2024). *Vibrio parahaemolyticus* integrons encode novel antiphage defences. Vibrio2024: The International Meeting on the Biology of Vibrios, Lima, Peru.

16. **Getz, L.J.**, Fairburn, S.R., Liu, Y.V., Qian, A.L., Maxwell, K.L. (2024). Identification of a Novel Phage Defence Hotspot in *Vibrio parahaemolyticus*. 73rd Annual Conference of the Canadian Society of Microbiologists, London, ON.

15. Qian, A.L., **Getz, L.J.**, Maxwell, K.L. (2024). Novel DNA glycosylase-based enzyme restricts phage replication in *Vibrio parahaemolyticus*. 73rd Annual Conference of the Canadian Society of Microbiologists, London, ON.

14. **Getz, L.J.**, Fairburn, S.R., Liu, Y.V., Qian, A.L., Maxwell, K.L. (2024). Identification of a Novel Phage Defence Hotspot in *Vibrio parahaemolyticus*. 2024 Symposium on the Immune System of Bacteria, Boston, USA.

13. Robinson, O., **Getz, L.J.**, Thomas, N.A. (2023). Transposon Sequencing Identifies a Genetic Paradigm for Chitin Utilization in *Vibrio parahaemolyticus*. 72nd Annual Conference of the Canadian Society of Microbiologists, Halifax, NS.

12. **Getz, L.J.**, Maxwell, K.L. (2023). Understanding the Global Antiphage Defence Arsenal of a Pandemic Foodborne Pathogen. 72nd Annual Conference of the Canadian Society of Microbiologists, Halifax, NS.

11. **Getz, L.J.**, Maxwell, K.L. (2022). The Best Defence is a Good Offence: Understanding Antiphage Defence in *V. parahaemolyticus* for more Effective Phage Therapy. 2022 QAtCanSTEM Colloquium, Halifax, NS.

10. **Getz, L.J.**, Brown, J.M., Sobot, L., Chow, A., Mahendrarajah, J., Thomas, N.A. (2021). DNA Cruciforms Regulate Virulence in Pathogenic *Vibrio* Species. 70th Annual Conference of the Canadian Society of Microbiologists, Remote.

9. **Getz, L.J.**, Thomas, N.A. (2020). Functional genomics of *Vibrio* pathogenesis and environmental persistence. 2020 Canadian Student Health Research Forum, Winnipeg, MB.

8. **Getz, L.J.**, Brown, J., Thomas, N.A. (2019). Type III Secretion System Gene Expression and Virulence is Regulated by a DNA Cruciform Structure at the *exsA* promoter in *Vibrio parahaemolyticus*. Genomes to Biology: the 8th International Conference on the Biology of Vibrios, McGill University, Montreal, QC.

7. **Getz, L.J.**, Brown, J., Thomas, N.A. (2019). A DNA junction superstructure regulates Type III Secretion System gene expression and virulence in *Vibrio parahaemolyticus*. The 69th Annual Conference of the Canadian Society of Microbiologists, Université de Sherbrooke, Sherbrooke, QC.

6. **Getz, L.J.**, Thomas, N.A. (2019). Flipping the Switch on Bacterial Pathogenesis: How the Leading Cause of Seafood-borne Gastroenteritis - *Vibrio parahaemolyticus* - Regulates Virulence. LGBTSTEMinar 2019, Institute of Physics, London, UK.

5. **Getz, L.J.**, Comeau, A., Langille, M.G.I., Thomas, N.A. (2018). Linking Phenotype and Pathogen Genomics: Tn-Seq and Next Generation DNA Sequencing. PREP Graduate Student Research Day, Dalhousie University, Halifax, NS.

4. **Getz, L.J.**, Comeau, A., Langille, M.G.I., Thomas, N.A. (2018). Linking Phenotype and Pathogen Genomics: Tn-Seq and Next Generation DNA Sequencing. 23rd Annual Infectious Disease Research Day, Dalhousie University, Halifax, NS.

3. **Getz, L.J.**, Thomas, N.A. (2017). HlyU and H-NS Act as a Genetic Switch for Transcriptional Control of the Type III Secretion System-I Master Regulator *exsA*. ASM Vibrio2017: The Biology of Vibrios, Chicago, IL.

2. **Getz, L.J.**, Thomas, N.A. (2017). Discovery of a Genetic Switch in *Vibrio parahaemolyticus* that Contributes to Host Cell Death During Infection. 22nd Annual Infectious Disease Research Day, Dalhousie University, Halifax, NS.

1. **Getz, L.J.**, Finlayson-Trick, E.C.L., Hagar, M., Slaine, P.D., Thornbury, M., Lamourerux, E., Cook, J., Langille, M.G.I., Murray, L.E., McCormick, C., Rohde, J.R., Cheng, Z.A. (2016). 'Spike' in biofuel production: mining the porcupine microbiome to engineer a softwood feedstock platform. iGEM Giant Jamboree, Boston, MA.

Conference Presentations

Invited Talks

8. Phage Therapy: Solutions in a Post-Antibiotic Era. 2nd Annual Antimicrobial Resistance Symposium, Emerging Pandemic Infections Consortium, University of Toronto, Toronto, ON. November 2023.

7. 2023 Connell Award for Best All Round Post Doctoral Fellow Award Talk. Annual Biochemistry Retreat 2023, University of Toronto, Toronto, ON. October 2023.

6. Pride in Microbiology, A Community Resource Also for Plant Biologists. Canadian Society of Plant Biology Annual Meeting, Université Laval, Quebec City, QC. June 2023.

5. 2022 Armand Frappier Outstanding Graduate Student Award - Attenuation of DNA Cruciform Structures by a Conserved Regulator Directs Virulence Gene Expression in Pandemic *Vibrio*. 71st Annual Conference of the Canadian Society of Microbiologists, University of Guelph, Guelph, ON. June 2022.

4. 2022 Al Downe Memorial Lecture - Editing Nature: Genetically Modified Mosquitoes and a Case for Slow Science. Al Downe Memorial Lecture, Queen's University, Kingston, ON. March 2022.

3. Transposon Sequencing: Functional Genomics for Probing Bacterial Pathogenesis. Genomics in Medicine - Emerging Technologies and Bioinformatic Challenges, Dalhousie University, Halifax, NS. December 2019.

2. *Vibrio parahaemolyticus* and infection: A complex relationship between environment and host. Graduate Student Research Day Excellence in Research Award Keynote, Dalhousie University, Halifax, NS. May 2019.

1. The Multimodal Lifestyle of Marine *Vibrio*. Natural History Museum Life Science Seminar Series, Natural History Museum, London, UK. January 2019.

Conference Talks

14. Integrons are Anti-Phage Defence Libraries in *Vibrio parahaemolyticus*. 74th Annual Conference of the Canadian Society of Microbiologists, Montreal, QC. June 2025. **Awarded Knowles Postdoctoral Research Award**

13. *Vibrio parahaemolyticus* integrons encode novel antiphage defences. Vibrio2024: The International Meeting on the Biology of Vibrios, Lima, Peru. October 2024.

12. DNA Cruciforms Regulate Virulence Gene Expression in Pathogenic *Vibrio* Species. 70th Annual Conference of the Canadian Society of Microbiologists, Remote. June 2021. **Awarded CCM Student Symposium Award**

11. Build Back Better: The Chief Science Advisor's Youth Council's Roundtables to Envision A Post-Pandemic Future in the Canadian Science Community. Canadian Science Policy Conference, University of Ottawa, Ottawa, ON. October 2020.

10. Functional genomics of *Vibrio* pathogenesis and environmental persistence. Canadian Student Health Research Forum, University of Manitoba, Winnipeg, MB. August 2020. **Awarded CIHR Silver Award**

9. A DNA Cruciform Structure Regulates Virulence Gene Expression in Human Pathogenic *Vibrio* species. Professional Research and Education Program Graduate Student Research Day, Dalhousie University, Halifax, NS. June 2020.

8. A Regulator of Sugar Metabolism Implicated in the Secretion and Virulence of *Vibrio parahaemolyticus*. Professional Research and Education Program Graduate Student Research Day, Dalhousie University, Halifax, NS. May 2019. **Awarded Graduate Student Research Day Platform Presentation Award**

7. Type III Secretion System Gene Expression and Virulence is Regulated by a DNA Cruciform Structure at the *exsA* promoter in *Vibrio parahaemolyticus*. Genomes to Biology: The 8th International Conference on the Biology of Vibrios, McGill University, Montreal, QC. November 2019. **Awarded People's Choice Award**

6. Creating LGBTQ+ Inclusive Spaces for Equitable Active Learning. Dalhousie Conference on University Teaching and Learning, Dalhousie University, Halifax, NS. May 2019.

5. The Multimodal Lifestyle of Marine *Vibrios*. Microbiology and Immunology Seminar Series, Dalhousie University, Halifax, NS. January 2019.

4. Flipping the Switch on Bacterial Pathogenesis: How the Leading Cause of Seafood-borne Gastroenteritis - *Vibrio parahaemolyticus* - Regulates Virulence. LGBTSTEMinar 2019, Institute of Physics, London, UK. January 2019.

3. Linking Phenotype and Pathogen Genomics: TnSeq and Next Generation DNA Sequencing. Professional Research and Education Program Graduate Student Research Day, Dalhousie University, Halifax, NS. May 2018.

2. *Vibrio parahaemolyticus*: A Versatile Pathogen Living a Dual-Lifestyle. Microbiology and Immunology Graduate Student Seminar, Dalhousie University, Halifax, NS. February 2018.

1. Biofuel Production set to Spike: Identification of Biofuel Producing Enzymes in the Porcupine Microbiome. 2016 iGEM Giant Jamboree, iGEM, Boston, MA. October 2016.

Conference Poster Presentations

Poster Presenter*

22. **Getz, L.J.***, Qian, A., Liu, Y.V., Fairburn, S., Butt, M., Lee, Y.-J., Weigele, P., Maxwell, K.L.. Structure-Guided Mining of *Vibrio* Integrons Reveals Novel Antiviral Immunity. Vibrio2026: The International Meeting on the Biology of Vibrios, Berlin, Germany. October, 2026.

21. **Getz, L.J.***, Qian, A., Liu, Y.V., Fairburn, S., Butt, M., Lee, Y.-J., Weigele, P., Maxwell, K.L.. Structure-guided discovery of novel antiphage defence glycosylases. Annual Meeting of the Canadian Society of Microbiologists, CSM 2026, Edmonton, AB. June 2026.

20. **Getz, L.J.***, Qian, A.L., Fairburn, S.R., Liu, Y.V., Maxwell, K.L.. *Vibrio parahaemolyticus* integrons encode novel antiphage defences. Third Annual Antimicrobial Resistance Symposium, Toronto, ON. November 2024.

19. Qian, A.L.*, **Getz, L.J.**, Lee, Y-J, Weigele, P.R., Maxwell, K.L.. *Vibrio parahaemolyticus* Defence Hotspot Encodes Two Novel DNA Glycosylase-Based Enzymes Restricting Phage Replication. Third Annual Antimicrobial Resistance Symposium, Toronto, ON. November 2024.

18. **Getz, L.J.***, Qian, A.L., Fairburn, S.R., Liu, Y.V., Maxwell, K.L.. *Vibrio parahaemolyticus* integrons encode novel antiphage defences. Annual Biochemistry Department Retreat, Toronto, ON. October 2024.

17. Fairburn, S.R.*, **Getz, L.J.**, Maxwell, K.L.. Identifying and Characterizing Novel Anti-Phage Defense Systems in *Vibrio parahaemolyticus*. BCH/MGY Summer Student Research Session, Toronto, ON. July 2024.

16. Liu, Y.V.*, **Getz, L.J.**, Maxwell, K.L.. Survive or Succumb: Exploring anti-phage defence in *V. parahaemolyticus*. BCH/MGY Summer Student Research Session, Toronto, ON. July 2024. **Awarded Top Poster Award**

15. **Getz, L.J.***, Fairburn, S.R., Liu, Y.V., Qian, A.L., Maxwell, K.L.. Identification of a Novel Phage Defence Hotspot in *Vibrio parahaemolyticus*. 73rd Annual Conference of the Canadian Society of Microbiologists, London, ON. June 2024.

14. Qian, A.L.*, **Getz, L.J.**, Maxwell, K.L.. Novel DNA glycosylase-based enzyme restricts phage replication in *Vibrio parahaemolyticus*. 73rd Annual Conference of the Canadian Society of Microbiologists, London, ON. June 2024.

13. **Getz, L.J.***, Fairburn, S.R., Liu, Y.V., Qian, A.L., Maxwell, K.L.. Identification of a Novel Phage Defence Hotspot in *Vibrio parahaemolyticus*. 2024 Symposium on the Immune System of Bacteria, Boston, USA. April 2024.

12. Fairburn, S.R.*, **Getz, L.J.**, Maxwell, K.L.. The Development of a Natural Transformation-CRISPR-Cas9 genome editing system in *Vibrio parahaemolyticus*. Ontario Biology Day 2024, Toronto, ON. March 2024.

11. Liu, Y.V.*, **Getz, L.J.**, Maxwell, K.L.. Investigating *V. parahaemolyticus* defence against a novel jumbophage. Ontario Biology Day, Toronto, ON. March 2024. **Awarded Top 5 Poster Presentation Award**

10. Liu, Y.V.*, **Getz, L.J.**, Maxwell, K.L.. A Start to Phage Therapy: Characterization of Bacteriophages against a Marine Foodborne Pathogen. BCH/MGY Summer Student Research Session, Toronto, ON. July 2023.

9. Robinson, O.*, **Getz, L.J.**, Thomas, N.A.. Transposon Sequencing Identifies a Genetic Paradigm for Chitin Utilization in *Vibrio parahaemolyticus*. 72nd Annual Conference of the Canadian Society of Microbiologists, Halifax, NS. June 2023.

8. **Getz, L.J.***, Maxwell, K.L.. Understanding the Global Antiphage Defence Arsenal of a Pandemic Foodborne Pathogen. 72nd Annual Conference of the Canadian Society of Microbiologists, Halifax, NS. June 2023.

7. **Getz, L.J.***, Maxwell, K.L.. The Best Defence is a Good Offence: Understanding Antiphage Defence in *V. parahaemolyticus* for more Effective Phage Therapy. 2022 QAtCanSTEM Colloquium, Halifax, NS. October 2022.

6. **Getz, L.J.**, Brown, J.M., Thomas, N.A.*. A DNA junction superstructure regulates Type III Secretion System gene expression and virulence in *Vibrio parahaemolyticus*. 69th Annual Conference of the Canadian Society of Microbiologists, Université de Sherbrooke, Sherbrooke, QC. June 2019.

5. **Getz, L.J.***, Brown, J.M., Thomas, N.A.. Type III Secretion System Gene Expression and Virulence is Regulated by a DNA Cruciform Structure at the *exsA promoter* in *Vibrio parahaemolyticus*. Centre for Comparative Genomics and Evolutionary Bioinformatics Research Retreat, Dalhousie University, Halifax, NS. November 2019.

4. **Getz, L.J.***, Comeau, A., Langille, M.G.I., Thomas, N.A.. Linking Phenotype and Pathogen Genomics: TnSeq and Next Generation DNA Sequencing. 23rd Annual Infectious Disease Research Day, Centre for Vaccinology, Halifax, NS. April 2018.

3. **Getz, L.J.***, Thomas, N.A.. HlyU and H-NS act as a Genetic Switch for Transcriptional Control of the Type-III Secretion System I Master Regulator *exsA*. ASM Vibrio2017, American Society of Microbiology, Chicago, IL. November 2017.

2. **Getz, L.J.***, Thomas, N.A.. Discovery of a Genetic Switch in *Vibrio parahaemolyticus* that Contributes to Host Cell Death during Infection. 22nd Annual Infectious Disease Research Day, Dalhousie University, Halifax, NS. April 2017.

1. **Getz, L.J.***, Finlayson-Trick, E.C.L., Hagar, M., Slaine, P.D., Thornbury, M., Lamourerux, E., Cook, J., Langille, M.G.I., Murray, L.E., McCormick, C., Rohde, J.R., Cheng, Z.. Biofuel Production set to Spike: Identification of Biofuel Producing Enzymes in the Porcupine Microbiome. 2016 iGEM Giant Jamboree, iGEM, Boston, MA. October 2016.

Grants

2. Awareness and understanding of apheresis plasma donation and effectiveness of alternative donor screening questions for diverse gbMSM and trans populations, Canadian Blood Services

   * Role: Collaborator under Principal Investigator Dr. Jacqueline Gahagan
   * Total award: $200,500 CAD
   * Focus on plasma donation and policies surrounding LGBTQ+ donors.

1. Genomics Opportunity Review Program: Legacy Gold Mine Genomics, Genome Atlantic

* Role: Collaborator under Principal Applicants Dr. Linda Campbell and Dr. Josh Kurek
* Total award: $15,000 CAD
* Perform 16S rRNA and Metagenomic sequence on arsenic and mercury contaminated legacy gold mine sites.

Teaching, Course-Design, and Student Supervision

Courses Taught and Course Design

Lecturer, BIOL 3037: Life Rewritten — Winter 2022
Dalhousie University

Course Designer, MICI2100DE (Distance Education) — Winter 2021
Dalhousie University

Course Designer, CHEM 1011/1021 and CHEM 1012/1022 (Distance Education) — June 2020
Dalhousie University

Course Designer, BIOL3037: Life Rewritten — Winter 2020/Winter 2021
Dalhousie University

Lecturer, CHEM 1011/1021 and CHEM 1012/1022 — Fall/Winter 2018/2019
Dalhousie University

Teaching Assistant, CHEM 1011/1021 and CHEM 1012/1022 — Winter 2017 - Fall 2018
Dalhousie University

Teaching Assistant, MICI 2100 — Fall 2017
Dalhousie University

Teaching Assistant, CHEM 1011/1021 and CHEM 1012/1022 — Fall 2015 - Fall 2016
Dalhousie University

Student and Laboratory Supervision

Graduate Student Supervision

Martin Christian Munoz, University of Toronto, Biochemistry	Fall 2026
Sam Fairburn, University of Toronto, Biochemistry	Winter 2025 - Present
Valmic Mukund, University of Toronto, Ecology and Evolutionary Biology	Winter 2024 - Present
Amy Qian, University of Toronto, Biochemistry	Fall 2023 - Present
Nicholas Chen, University of Toronto, Biochemistry - Rotation	Fall 2023
Minseo (Bella) Kim, University of Toronto, Biochemistry - Rotation	Fall 2023
Surani Weerasundarage, University of Toronto, Biochemistry - Rotation	Winter 2023

Co-op Students

Samuel Miller, University of Guelph, Biochemistry	Summer 2026 - Summer 2027
Faie Shahbaz, University of Waterloo, Nanotechnology Engineering	Winter/Summer 2026
Mahnoor Butt, University of Waterloo, Computational Chemistry	Winter/Summer 2025
Lauren Bryan, University of Waterloo, Biology	Fall 2024
Sam Fairburn, University of Waterloo, Biochemistry	Winter/Summer 2024, Summer 2025

Undergraduate Thesis and Summer Students

Angela Qin, University of Toronto, Biochemistry	Fall/Winter 2026/2027
Vivian Liu, University of Toronto, Biochemistry	2023 - 2025
Alexandra Chow, Dalhousie University, Microbiology & Immunology	2021 - 2022
Justin Brown, Dalhousie University, Microbiology & Immunology	2019 - 2022

Kareem Abdelgabar, Dalhousie University, Microbiology & Immunology	2020
Lauren Sobot, Dalhousie University, Microbiology & Immunology	2020
Jastina Mahendrarajah, Dalhousie University, Microbiology & Immunology	2019
Phoebe Phonchareon, Dalhousie University, Microbiology & Immunology	2019
Divya Thomas, Dalhousie University, Microbiology & Immunology	2018

Awards and Fellowships

2026 Equality, Diversity, and Inclusion Prize - Microbiology Society	1000 GBP Prize
2025 Knowles Postdoctoral Research Prize - Canadian Society of Microbiologists	$500 CAD Prize
2024 Gray-Doolittle Awards for Research Excellence - Institute of Comparative Genomics	$300 CAD Prize
2023 Connell Award for Best All Round Post Doctoral Fellow	$500 CAD Award
2023 GSK-EPIC Convergence Postdoctoral Fellowship in Antimicrobial Resistance - EPIC	$120,000 CAD Award
2023 CIHR Postdoctoral Fellowship - Canadian Institutes of Health Research	$170,000 CAD Award
2022 Design2Learn (D2L) Innovation Award in Teaching and Learning - STLHE	$3000 CAD Award to Team
2022 Armand-Frappier Outstanding Graduate Student Award - CSM	$500 CAD Award
2021 Canadian College of Microbiologists Symposium Award - CSM	$500 CAD Award
2021 Educational Leadership Award for Collaborative Teaching - Dalhousie CLT	
2020 CIHR Silver Award - Canadian Student Health Research Forum	$250 CAD Award
2019 People's Choice Award - 8th International Conference on the Biology of Vibrios	$200 CAD Award
2019 President's Graduate Student Teaching Assistant Award - Dalhousie University	$500 CAD Award
2019 PREP Graduate Student Research Day Platform Presentation Award	$200 CAD Award
2019 Faculty of Medicine Excellence in Research Award - Dalhousie University	$1000 CAD Award
2019 Vanier Canadian Graduate Scholarship - NSERC	$150,000 CAD Award
2019 Killam Graduate Scholarship - Killam Foundation	$90,000 CAD Award
2019 Alexander Graham Bell Canadian Graduate Scholarship Doctoral - NSERC	$35,000 CAD Award
2019 HHMI Tuition Scholarship - Cold Spring Harbor Laboratories	$1500 USD Award
2018 Nova Scotia Health Research Foundation Scotia Scholars Award	$10,000 CAD Award
2018 Alexander Graham Bell Canadian Graduate Scholarship Masters - NSERC	$17,500 CAD Award
2018 Nova Scotia Graduate Scholarship	$10,000 CAD Award
2017 Award for Excellence in Undergraduate Honours Research	$100 CAD Award
2017 Nova Scotia Graduate Scholarship	$10,000 CAD Award
2017 Faculty of Science Undergraduate Research Prize	
2017 Honours Student Prize	$100 CAD Award
2016 NSERC University Summer Research Award	$6,000 CAD Award
2015 Dalhousie University In-Course Scholarship	$250 CAD Award
2013 Dalhousie University Entrance Scholarship	$750 CAD Award
2013 Alexander Rutherford Scholarship	$2,500 CAD Award

Scholarly and Professional Activities

Grant Panels

Peer Reviewer, Canadian Graduate Research Scholarship - Doctoral program 2026
Canadian Institutes of Health Research

EPIC Ignite Grants 2025
Emerging Pandemic Infections Consortium

EPIC Convergence Postdoctoral Fellowship 2024
Emerging Pandemic Infections Consortium

Youth Reviewer, Healthy Youth Catalyst Grant 2023
Canadian Institutes of Health Research

Peer Reviewer, CIHR Canadian Graduate Scholarship - Doctoral 2024 - 2025
Canadian Institutes of Health Research

Observer, NSHRF Peer-Review Panel 2018
Dalhousie University

Journal Referee

Nature Microbiology, Nature Communications, Microbial Genomics, PLoS Computational Biology, Nature Reviews Genetics, Biochemistry and Cell Biology, Microbiology Spectrum, mSystems, Microbiome

Service

Co-founder, Pride in Microbiology Network Present

Founder, Queer Atlantic Canadian STEM (QAtCanSTEM) 2019-2023

Board Member, Scientists of the Maritimes October 2019-December 2021

Graduate Student Representative, Institute for Comparative Genomics 2021 - 2022

Graduate Student Representative, Undergraduate Studies Committee, Department of Microbiology and Immunology, Dalhousie University 2017 - 2019

Conference Organization

External Advisor, 2SLGBTQ+ in STEM Conference 2024 - 2025
Toronto Metropolitan University

ASM Young Ambassador, 73rd Annual Conference of the Canadian Society of Microbiologists 2023 - 2024
Western University

ASM Young Ambassador, 72nd Annual Conference of the Canadian Society of Microbiologists 2022 - 2023
Dalhousie University

External Advisor, 3rd Annual QAtCanSTEM Colloquium 2022
Mount Saint Vincent University

ASM Young Ambassador, 71st Annual Conference of the Canadian Society of Microbiologists 2021 - 2022
University of Guelph

Organizing Committee Member, CCfV/ID Research Day 2021 - 2022
Dalhousie University

Primary Conference Organizer, 1st Annual QAtCanSTEM Colloquium 2019 - 2020
Dalhousie University

Scientific Society Membership and Service

Member, Microbiology Society — 2025 - Present

Member, Applied Microbiology International — 2025 - Present

Member, Canadian Society of Microbiologists — 2021 - Present

Member, American Society for Microbiology — 2017 - Present

ASM Young Ambassador to Canada, American Society for Microbiology — 2022 - 2024

Student Member, Nova Scotia Institute of Science — 2017 - 2022

Governmental Consultation and Advising

Mentor, Chief Science Advisor of Canada's Youth Council — 2023 - Present
Office of the Chief Science Advisor, Government of Canada

Consultant, Tri-Agency Training Strategy External Advisory Committee — 2023
NSERC, on behalf of the Tri-Agency

Member, Chief Science Advisor's Youth Council — 2019 - 2022
Office of the Chief Science Advisor, Government of Canada

Participant, NSERC 2030: A Strategic Plan — 2021
Natural Sciences and Engineering Research Council of Canada

Participant, Chief Science Advisor of Canada's Open Science Dialogues — 2021
Office of the Chief Science Advisor, Government of Canada

Observer, Expert Advisory Committee on COVID-19: Zoonosis — 2020
Office of the Chief Science Advisor, Government of Canada

Consultant, CIHR Self-Identification Questionnaire Review — 2019 - 2020
Canadian Institutes of Health Research

Community Outreach/Justice and Belonging (EDI) Efforts

Co-Founder, Pride in Microbiology — 2023 - Present

Panelist, Brewing Change: A Coffee Chat on Inclusion and Equity in Science — December 2024
American Society of Microbiology IDEAA Committee

Panelist, Connecting, Inspiring and Advocating for LGBTQIA+ Researchers in Microbiology — November 2024
Applied Microbiology International

Board Member, Board of Directors, Scientists of the Maritimes — 2019 - 2021

Founder, Queer Atlantic Canadian Science, Technology, Engineering, and Mathematics (QAtCanSTEM) — 2019 - 2023

Knowledge Translation, Media, and News

UofT Medicine Magazine. Why Equity Matters. Winter 2026.
The Microbiologist. Pride in Microbiology Network: the road so far. November 17, 2025.
Emerging Pandemic Infections Consortium. Newly identified bacterial defence systems open avenues for treating drug resistant infections. February 25, 2025.
Microbiology Society. Introducing the Pride in Microbiology Network. August 24, 2023.
Emerging Pandemic Infections Consortium. Landon J. Getz receives inaugural GSK EPIC Convergence Postdoctoral Fellowship in Antimicrobial Resistance. June 15, 2023.
Canadian Society of Microbiologists. Meet the Microbiologist: Landon Getz. March 16, 2022.
Dal News. Making science a better place: Student-led group expands efforts to create community for LGBTQ+ in STEM. August 18, 2021.
Dal News. Excellence in education: Meet this year's Dalhousie teaching award winners. June 23, 2021.
Scientists in School. Spotlight with Scientists in School: Landon Getz, Award Winning Post-Secondary Educator. March 1, 2021.

Simcoe Reformer. Why deliberately infecting healthy young volunteers with COVID-19 virus can be done ethically. October 22, 2020.
CBC News. How microbes could help clean up Nova Scotia's abandoned mines. August 6, 2020.
980 CKNW - The Jill Bennett Show. Conversation on coronavirus vaccines and treatments. April 23, 2020.
570 NEWS: Kitchener Today with Brian Bourke. Conversation on coronavirus vaccines and treatments. April 16, 2020.
Dal News. Creating a deeper sense of community for LGBTQ+ scientists. January 30, 2020.
The Signal. Halifax event connects queer voices in STEM. January 20, 2020.
CBC Nova Scotia's Information Morning Radio Show. QAtCanSTEM Colloquium: Being Queer in STEM. January 17, 2020.
Halifax's The Coast. A first-of-its-kind queer STEM conference is in Halifax this weekend. January 16, 2020.
The National Post. Breakthrough or a threat? Research on genetics of same-sex behaviour ignites ethical debate. December 6, 2019.
HalifaxToday.ca. Halifax-based group building queer community in STEM fields. November 24, 2019.
The Sheldon McLeod Show. QAtCanSTEM and Being a Queer Scientist. November 22, 2019.
The Dalhousie Gazette. Urban Garden is one of Dalhousie's hidden gems. September 27, 2019.
Dal News. Pride in STEM. July 25, 2019.
Dal News. Teachers who inspire: Meet this year's recipients of Dal's university-wide teaching awards. June 20, 2019.
Current Exchange: A blog by CSHL Meetings and Courses. Visitor of the Week: Landon Getz. June 14, 2019.
Dal News. Government of Canada selects Dal PhDs and Postdocs for its most esteemed awards. May 16, 2019.
CBC Nova Scotia's Information Morning Radio Show. On the Call for a Moratorium on Germline Genome Editing. February 2019.
CBC Nova Scotia's Information Morning Radio Show. LGBTSTEMDAY: Inclusion and Diversity in STEM with Portia Clarke, live in studio. July 2018.
Halifax's The Coast. 10 urban gardens you need to know. August 3, 2017.