

Dr. Landon J. Getz

Postdoctoral Fellow

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Education

<i>Department of Biochemistry, University of Toronto</i> , Postdoctoral Fellow Supervisor: Dr. Karen Maxwell, <i>Department of Biochemistry</i>	2022 - Present
<i>Faculty of Medicine, Dalhousie University</i> , Ph.D. (Microbiology & Immunology) Supervisor: Dr. Nikhil Thomas, Department of Microbiology and Immunology	2017 - 2022
<i>Cold Spring Harbor Laboratory</i> , Advanced Bacterial Genetics Course	2019
<i>Faculty of Science, Dalhousie University</i> , B.Sc. Honours (Microbiology & Immunology) First Class Honours - cGPA > 3.7 Department of Microbiology and Immunology Honours Student Research Prize	2013 - 2017
<i>Faculty of Science, Dalhousie University</i> , Certificate in Genetics	2017

Publications

316 citations, H-index: 10 (Google Scholar, March 2026)

Career Total (Published): 17

PEER-REVIEWED JOURNAL ARTICLES

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

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 DNA glycosylases. *Nature Microbiology*. Under Revision
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](https://doi.org/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](https://doi.org/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](https://doi.org/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](https://doi.org/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](https://doi.org/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](https://doi.org/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 Reviews of Virology*. DOI: [10.1146/annurev-virology-100422-125123](https://doi.org/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](https://doi.org/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](https://doi.org/10.1093/nar/gkad370)
8. **Getz, L.J.**^{*}, Kratzer, K.^{*}, Peterlini, T., Masson, J-Y.[#], Dellaire, G.[#] (2021). Addressing the dark matter of gene therapy: technical and ethical barriers to clinical application. *Human Genetics*. DOI: [10.1007/s00439-021-02272-5](https://doi.org/10.1007/s00439-021-02272-5)
7. **Getz, L.J.**[#], Dellaire, G.[#] (2020). Back to Basics: Application of the 4-principle approach to bioethics to heritable genome editing. *Science and Engineering Ethics*. DOI: [10.1007/s11948-020-00226-0](https://doi.org/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](https://doi.org/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.[#] (2018). Characterization of novel lignocellulose-degrading enzymes from the porcupine microbiome using synthetic metagenomics. *PLoS One*. DOI: [10.1371/journal.pone.0209221](https://doi.org/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](https://doi.org/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](https://doi.org/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](https://doi.org/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](https://doi.org/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.

COMMENTARY

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*.
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

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. (2024). Integrons are Anti-Phage Defence Libraries in *Vibrio parahaemolyticus*. 73rd Annual Canadian Society of Microbiologists Annual Conference, Montreal, QC.

19. **Getz, L.J.**, Fairburn, S.R., Liu, V.L., 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, V.L., 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, V.L., 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, V.L., 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.**, 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.
8. **Getz, L.J.**, Thomas, N.A. (2020). Functional genomics of *Vibrio* pathogenesis and environmental persistence. 2020 Canadian Student Health Research Forum, Winnipeg, MB.
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*. 73rd 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*

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. 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.
12. 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**
11. **Getz, L.J.***, Fairburn, S.R., Liu, V.L., 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.
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 <i>Dalhousie University</i>	Winter 2022
Course Designer, MICI2100DE (Distance Education) <i>Dalhousie University</i>	Winter 2021
Course Designer, CHEM 1011/1021 and CHEM 1012/1022 (Distance Education) <i>Dalhousie University</i>	June 2020
Course Designer, BIOL3037: Life Rewritten <i>Dalhousie University</i>	Winter 2020/Winter 2021
Lecturer, CHEM 1011/1021 and CHEM 1012/1022 <i>Dalhousie University</i>	Fall/Winter 2018/2019
Teaching Assistant, CHEM 1011/1021 and CHEM 1012/1022 <i>Dalhousie University</i>	Winter 2017 - Fall 2018
Teaching Assistant, MICI 2100 <i>Dalhousie University</i>	Fall 2017

Teaching Assistant, CHEM 1011/1021 and CHEM 1012/1022
Dalhousie University

Fall 2015 - Fall 2016

STUDENT AND LABORATORY SUPERVISION

Graduate Student Supervision

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

Faie Shahbaz, University of Waterloo, Nanotechnology Engineering	Winter/Summer 2026
Mahnour 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

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 Dalhousie University Faculty of Medicine Excellence in Research Award	\$1,000 CAD Prize
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 <i>Canadian Institutes of Health Research</i>	2026
EPIC Ignite Grants <i>Emerging Pandemic Infections Consortium</i>	2025
Peer Reviewer, CIHR Canadian Graduate Scholarship - Doctoral <i>Canadian Institutes of Health Research</i>	2025
EPIC Convergence Postdoctoral Fellowship <i>Emerging Pandemic Infections Consortium</i>	2024
Youth Reviewer, Healthy Youth Catalyst Grant <i>Canadian Institutes of Health Research</i>	2023
Peer Reviewer, CIHR Canadian Graduate Scholarship - Doctoral <i>Canadian Institutes of Health Research</i>	2024 - 2025
Observer, NSHRF Peer-Review Panel <i>Dalhousie University</i>	2018

JOURNAL REFEREE

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

SERVICE

Founder, Pride in Microbiology Network	Present
Founder, Queer Atlantic Canadian STEM (QAtCanSTEM)	July 2019-September 2022
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 <i>Toronto Metropolitan University</i>	2024 - 2025
ASM Young Ambassador, 73rd Annual Conference of the Canadian Society of Microbiologists <i>Western University</i>	2023 - 2024
ASM Young Ambassador, 72nd Annual Conference of the Canadian Society of Microbiologists <i>Dalhousie University</i>	2022 - 2023
External Advisor, 3rd Annual QAtCanSTEM Colloquium <i>Mount Saint Vincent University</i>	2022
ASM Young Ambassador, 71st Annual Conference of the Canadian Society of Microbiologists <i>University of Guelph</i>	2021 - 2022
Organizing Committee Member, CCfV/ID Research Day <i>Dalhousie University</i>	2021 - 2022
Primary Conference Organizer, 1st Annual QAtCanSTEM Colloquium <i>Dalhousie University</i>	2019 - 2020

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 <i>Office of the Chief Science Advisor, Government of Canada</i>	2023 - Present
Consultant, Tri-Agency Training Strategy External Advisory Committee <i>NSERC, on behalf of the Tri-Agency</i>	2023
Member, Chief Science Advisor's Youth Council <i>Office of the Chief Science Advisor, Government of Canada</i>	2019 - 2022
Participant, NSERC 2030: A Strategic Plan <i>Natural Sciences and Engineering Research Council of Canada</i>	2021

Participant, Chief Science Advisor of Canada's Open Science Dialogues <i>Office of the Chief Science Advisor, Government of Canada</i>	2021
Observer, Expert Advisory Committee on COVID-19: Zoonosis <i>Office of the Chief Science Advisor, Government of Canada</i>	2020
Consultant, CIHR Self-Identification Questionnaire Review <i>Canadian Institutes of Health Research</i>	2019 - 2020

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 <i>American Society of Microbiology IDEAA Committee</i>	December 2024
Panelist, Connecting, Inspiring and Advocating for LGBTQIA+ Researchers in Microbiology <i>Applied Microbiology International</i>	November 2024
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.