

Michael J. Sieler Jr.

Department of Microbiology
Oregon State University
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EDUCATION

Oregon State University, Corvallis, OR <i>Ph.D. Microbiology, minor: Biological Data Sciences. GPA: 3.95</i>	Expected June 2025
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Oregon State University, Corvallis, OR <i>B.S. Bioresource Research, options: Bioinformatics and Genomics. GPA: 3.82</i>	June 2020
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RESEARCH APPOINTMENTS

Graduate Student Researcher , Mentor: Thomas J. Sharpton Research focus in zebrafish gut microbiome ecology and bioinformatics Department of Microbiology, Oregon State University	2020-Present
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Phd Intern , Mentor: Lisa Bramer and Kelly Stratton Research focus in metabolomic data science and bioinformatics Pacific Northwest National Laboratory	2023-2024
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Undergraduate Student Researcher , Mentor: Thomas J. Sharpton Research focus in zebrafish microbiome ecology and bioinformatics Department of Microbiology, Oregon State University	2018-2020
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Undergraduate Student Researcher , Mentor: Taifo Mahmud Research focus in identifying novel antibiotic compounds Department of Pharmacy, Oregon State University	2017-2018
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TEACHING APPOINTMENTS

Graduate Teaching Assistant General Microbiology Lab (MB 303, Spring)	2022-2023
Human Microbiome (MB 436, Spring)	2021
Introduction to Microbiology (MB 230, Spring)	2021

SERVICE & VOLUNTEERING

Pernot Microbiology Summer Camp - Camp Mentor <i>Department of Microbiology, Oregon State University</i> Supervised 20 high school students from historically disadvantaged backgrounds laboratory techniques.	2024
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Science Communication Fellow <i>Oregon Museum of Science and Industry</i> Present scientific research and concepts in the form of live demonstrations to lay audiences.	2020 – Present
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FELLOWSHIPS & AWARDS

NMDC Ambassador

2024 – Present

National Microbiome Data Collaborative

Recognized and received training for early career contributions to promoting findable, accessible, interoperable and reusable microbiome research data and workflows

ODFW Fish Health Graduate Research Fellowship

2023 – 2025

Oregon Department of Fish and Wildlife

Recognized for research in Microbiology at Oregon State University, focusing on fish health issues to benefit Oregon's fish populations

Science Communication Fellow

2020 – Present

Oregon Museum of Science and Industry

Received certified training in informal science education and engagement with public audiences

ARCS Scholar

2020 – 2023

ARCS Foundation

Recognized for early significant contributions to scientific research

SCIENTIFIC PUBLICATIONS

Keaton Stagaman, Alexandra Alexiev, **Michael J. Sieler Jr.**, Austin Hammer, Kristin D. Kasschau, Lisa Truong, Robyn L. Tanguay & Thomas J. Sharpton (2024). "The zebrafish gut microbiome influences benzo[a]pyrene developmental neurobehavioral toxicity" *Sci Rep*.

Austin Hammer, Christopher Gaulke, Manuel Garcia-Jaramillo, Connor Leong, **Michael J. Sieler Jr.**, Jeff Morré, Yuan Jiang, Claudia Maier, Michael Kent, Thomas Sharpton, and Jan Fred Stevens (2024). "Gut microbiota metabolically mediate intestinal helminth infection in Zebrafish". *In-review*.

Damon T. Leach, **Michael J. Sieler Jr.**, Kelly G. Stratton, Rachel E. Richardson, Jennifer E. Kyle, Young-Mo Kim, Josie G. Eder, Kristin M. Engbrecht, Athena A. Schepmoes, Bobbie-Jo M. Webb-Robertson, Lisa Bramer (2024). "Analyzing batch effect correction algorithms for small molecule data using ground truth from a designed experiment." *In review*.

Michael J. Sieler Jr., Colleen E Al-Samarrie, Kristin D Kasschau, Zoltan M Varga, Michael L Kent, Thomas J Sharpton (2023). "Disentangling the link between zebrafish diet, the gut microbiome succession and *Mycobacterium chelonae* infection." *Anim. Microbiome*.

Joseph A Szule, Lawrence R Curtis, Thomas J Sharpton, Christiane V Löhr, Susanne M Brander, Stacey L Harper, Jamie M Pennington, Sara J Hutton, **Michael J. Sieler Jr.**, Kristin D Kasschau (2022). "Early Enteric and Hepatic Responses to Ingestion of Polystyrene Nanospheres from Water in C57BL/6 Mice." *Front. Water*.

Maude M David, Christine Tataru, Quintin Pope, Lydia J Baker, Mary K English, Hannah E Epstein, Austin Hammer, Michael Kent, **Michael J. Sieler Jr.**, Ryan S Mueller, Thomas J Sharpton, Fiona Tomas, Rebecca Vega Thurber, Xiaoli Z Fern (2022). "Revealing General Patterns of Microbiomes That Transcend Systems: Potential and Challenges of Deep Transfer Learning." *Msystems*.

Thomas J. Sharpton, Keaton Stagaman, **Michael J. Sieler Jr.**, Holly K. Arnold, Edward W. Davis II (2021). "Phylogenetic integration reveals the zebrafish core microbiome and its sensitivity to environmental exposures." *Toxics*.

PRESENTATIONS

9th Conference on Beneficial Microbes

2024

University of Wisconsin

Madison, Wisconsin

"Modelling the Gut Microbiome's Resistance and Resilience to Climate Change and Infection in Zebrafish"

5th Annual MANA Conference

Metabolomics Association of North America (MANA)

"Choice of batch correction method is an important factor in small molecule study"

2023

Columbia, Missouri

Zebrafish Husbandry Workshop

Aquaculture

"Effects of diet on growth and the microbiome"

2022

San Diego, CA (virtual)

3rd International Fish Microbiota Workshop

Chinese Academy of Agriculture Sciences

"Zebrafish laboratory diets differentially alter gut microbiota composition"

2021

Beijing, China (virtual)

PANELS

9th Conference on Beneficial Microbes

University of Wisconsin

"The Importance of Inclusive Practices in Microbiome Science"

2024

Madison, Wisconsin

POSTERS

ARCS Annual Scholar Event

ARCS Foundation

"How do external environmental factors impact the gut microbiome to influence host health?"

2022

Portland, OR

2nd International Fish Microbiota Workshop

University of Oregon

"The gut microbiome drives Benzo(a)pyrene's impact on zebrafish behavioral development"

2019

Eugene, OR

College of Agriculture Science Showcase

Oregon State University

"The gut microbiome drives Benzo(a)pyrene's impact on zebrafish behavioral development"

2019

Corvallis, OR

PROFESSIONAL AFFILIATION & SERVICE

Food and Nutrition Special Interest Group	2023-Present
Advocate	
<i>Oregon Public Health Association</i>	<i>Portland, OR</i>
 Microbes and Social Equity Working Group	 2022-Present
Member	
 Microbiology Graduate Student Association	 2022 – 2023
President	
<i>Oregon State University</i>	<i>Corvallis, OR</i>