

Brandon H. Schlomann

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Education

2020 (expected)	Ph.D.	Physics, University of Oregon Advisor: Dr. Raghuveer Parthasarathy Research: Biophysics of zebrafish gut microbiota
2013	B.A.	Physics, with Honors, University of Montana Advisor: Dr. Andrew Ware Research: Plasma theory and design of fusion reactors

Awards and Fellowships

2016 – 2019	NIH Molecular Biology and Biophysics Training Grant, U. Oregon
2016	NSF GRFP Honorable Mention
2014	First Year Academic Award, Institute of Theoretical Science, U. Oregon
2009	Cal-Murphy Scholarship, U. Montana

Publications (* = equal contributors)

In preparation/ under review

1. **Brandon H. Schlomann*** and Raghuveer Parthasarathy*
Dynamics of intestinal microbiota [review], in prep
2. Travis J. Wiles*, **Brandon H. Schlomann***, Elena S. Wall, Raghuveer Parthasarathy, Karen Guillemin
Toggling motility of gut bacteria in situ controls population stability and host inflammation, in prep
3. **Brandon H. Schlomann***, Travis J. Wiles*, Elena S. Wall, Karen Guillemin, Raghuveer Parthasarathy
Low dose antibiotics can collapse gut bacterial populations via a gelation transition, *bioRxiv* (2019) doi: 10.1101/565556, under review

Published

1. **Brandon H. Schlomann***, Travis J. Wiles*, Elena S. Wall, Karen Guillemin, Raghuveer Parthasarathy

Bacterial cohesion predicts spatial distribution in the zebrafish intestine, *Biophysical Journal* (2018)

2. Travis J. Wiles, Elena S. Wall, **Brandon H. Schlomann**, Edouard A. Hay, Raghuveer Parthasarathy, Karen Guillemin

Modernized tools for streamlined genetic manipulation and comparative study of wild and diverse proteobacterial lineages, *mBio* (2018)

3. **Brandon H. Schlomann**

Stationary moments, diffusion limits, and extinction times for logistic growth with random catastrophes, *Journal of Theoretical Biology* (2018)

4. Travis J Wiles, Matthew Jemielita, Ryan P Baker, **Brandon H Schlomann**, Savannah L Logan, Julia Ganz, Ellie Melancon, Judith S Eisen, Karen Guillemin, Raghuveer Parthasarathy

Host gut motility promotes competitive exclusion within a model intestinal microbiota, *PLoS Biology* (2016)

Conference Talks

1. *Bacterial cohesion predicts spatial distribution in the zebrafish intestine*, American Physical Society March Meeting, Boston, MA, March 5, 2018
2. *Swim/stick tradeoffs for gut bacterial symbionts*, American Physical Society March Meeting, Los Angeles, CA, March 7, 2018
3. *Catastrophe and fast dispersal dynamics of the zebrafish gut microbiota following sublethal antibiotics*, International Fish-Microbiota Workshop, Trondheim, Norway, June 20, 2017
4. *Visualizing the response of a gut bacterial population to antibiotic perturbations*, American Physical Society March Meeting, New Orleans, LA, March 13, 2017
5. *Response dynamics of gut bacterial communities*, META Center Symposium, Eugene, OR, June 16, 2016

Teaching and Outreach Summary

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| 2014–2018 | Summer Academy to Inspire Learning, University of Oregon
<i>Led small group demonstrations for high school students</i> |
| 2014–2015 | PHYS 204/205/206, University of Oregon
<i>Taught algebra-based physics lab</i> |
| 2007–2009 | Physics Study Jam, University of Montana
<i>Served as peer tutor</i> |