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)

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

   Swimming motility and chemotaxis control the spatial organization, persistence, and inflammatory activity of a model intestinal pathobiont, under review (*bioRxiv* (2019) **doi**: https://doi.org/10.1101/779983)

2. **Brandon H. Schlomann*** and Raghuveer Parthasarathy*

   Timescales of gut microbiome dynamics, Current Opinion in Microbiology, in press [review],

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

   Sublethal antibiotics collapse gut bacterial populations by enhancing aggregation and expulsion, *PNAS*, in press. (*bioRxiv* (2019) **doi**: https://doi.org/10.1101/565556)

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

   Bacterial cohesion predicts spatial distribution in the zebrafish intestine, *Biophysical Journal* **115**, 22712277 (2018)

5. 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* **9**, 5, e01877-18 (2018)

6. **Brandon H. Schlomann**

   Stationary moments, diffusion limits, and extinction times for logistic growth with random catastrophes, *Journal of Theoretical Biology* **454**, 154-163, (2018)

7. 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) DOI:10.1371/journal.pbio.1002517

Conference Talks

1. *Live imaging of gut bacterial communities in zebrafish: spatial structure, fast dynamics, and antibiotic perturbations*, 2nd International Fish-Microbiota Workshop, Eugene, OR, September 4, 2019
2. *Live imaging of gut bacterial communities in zebrafish: spatial structure, fast dynamics, and antibiotic perturbations*, PacNow Quantitiative Biology Meeting, Portland OR, August 22, 2019
3. *Bacterial cohesion predicts spatial distribution in the zebrafish intestine*, American Physical Society March Meeting, Boston, MA, March 5, 2019
4. *Swim/stick tradeoffs for gut bacterial symbionts*, American Physical Society March Meeting, Los Angeles, CA, March 7, 2018
5. *Catastrophe and fast dispersal dynamics of the zebrafish gut microbiota following sublethal antibiotics*, International Fish-Microbiota Workshop, Trondheim, Norway, June 20, 2017
6. *Visualizing the response of a gut bacterial population to antibiotic perturbations*, American Physical Society March Meeting, New Orleans, LA, March 13, 2017
7. *Response dynamics of gut bacterial communities*, META Center Symposium, Eugene, OR, June 16, 2016

Teaching and Outreach Summary

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