KATIE M. SAUND

katiephd@umich.edu • 313.418.3016 • linkedin.com/in/katiesaund • katiesaund.com • github.com/katiesaund/

EDUCATION

University of Michigan PhD candidate in Microbiology & Immunology, Ann Arbor, MI 2015 – 2020 *expected*

- **Awards**: ASM Richard & Mary Finkelstein Travel Award (2019), UM Rackham Conference Travel Grant (2019), UM Rackham Professional Development Award (2019), NIH Predoctoral Training Grant in Genetics (2016 – 2018), & UM Benard Maas Fellowship (2015).

California Institute of Technology B.S. Biology, Pasadena, CA 2008 – 2012

- **Awards**: Doris Everhart Service Award (2012), Frank Teruggi Memorial Award (2011), Paul Studenski Memorial Fund Prize (2010), & Don Shepard Award (2009).

RESEARCH

PhD candidate in Microbiology & Immunology University of Michigan, Ann Arbor, MI 2015 – 2020 *expected*
Advisor: Evan Snitkin, Ph.D.

- Thesis project: Apply statistical approaches to identify & validate genetic variants associated with *in vitro* phenotypes and patient outcomes during *Clostridium difficile* infection.
- **Software**:
  - hogwash. Open source R package. Three genome-wide association study methods to identify genetic loci correlated with bacterial phenotypes. http://github.com/katiesaund/hogwash
- **Papers:**
  - T. Mau, S. Eckley, I. Bergin, K. Saund, J. Villano, K. Vendrov, E. Snitkin, V. Young, & R. Yung. Outbreak of murine infection with *C. difficile* associated with the administration of a methyl-donor diet. mSphere. 2019.
  - C. M. Bassis, K. A. Bullock, D. E. Sack, K. Saund, A. Pirani, E. S. Snitkin, V. I. Alaniz, E. H. Quint, V. B. Young, J. D. Bell. Evidence that vertical transmission of the vaginal microbiota can persist into adolescence. Submitted to Microbiome. 2019.
- **External posters & talks:**
  - K. Saund & E. Snitkin. "Bacterial GWAS Identified Genetic Loci Linked to *C. difficile* Toxicity." American Society for Microbiology Microbe. San Francisco, CA. 2019. **Talk & poster**.
  - K. Saund & E. Snitkin. "Bacterial genome-wide association study to identify genetic variants linked to complex *in vitro* phenotypes" 2018. **Invited flash talk**: Systems Biology & Antibacterial Resistance Program. La Jolla, CA. **Poster**: Lake Arrowhead Microbial Genomics. Lake Arrowhead, CA.
  - K. Saund & E. Snitkin. "Identification of genetic variation associated with clinical success in *C. difficile.*" **Poster**: 10th International Conference on the Molecular Biology and Pathogenesis of the Clostridia. Ann Arbor, MI. 2017.

Research Assistant & Research Scientist I Seattle Children's Research Institute, Seattle, WA 2012 – 2015

- Advisor: Courtney Crane, Ph.D.
- Project: Characterization of the role of lactate dehydrogenase in the pediatric glioma microenvironment.
- **Paper:** Haberthur K., Brennan K., Hoglund V., Balcaitis S., Chinn H., Davis A., Kreuser S., Winter C., Leary S.E.S., Deutsch, G.H., Ellenbogen, R.G., and Crane, C.A. (2016). NKG2D ligand expression in pediatric brain tumors. Cancer Biology & Therapy.
- **Poster:** Moyes, K.W., Brennan, K.M., & Crane, C.A. "Receptor for Lactate Dehydrogenase V is a Novel Therapeutic Target for Glioblastoma." 8th Annual Canadian Cancer Immunotherapy Consortium Symposium. Vancouver, Canada. 2015.

SKILLS

Computational *Languages:* R *Other*: High-performance cluster computing, bash scripting, git
Laboratory Anaerobic bacterial culture, protein co-immunoprecipitation, CRISPR/Cas9 genome editing, lentiviral production & transduction, mammalian cell culture, molecular biology, mRNA isolation, qPCR
Software Adobe Illustrator

EXTRACURRICULARS

Student Advisor at Wolverine Venture Fund University of Michigan, Ann Arbor, MI 2018 – Present

- Sourcing deals & performing due diligence on Series A & B healthcare and technology investment opportunities.

Venture Capital Investment Competition University of Michigan & University of Texas at Austin 2018 – 2019

- Member of winning four-person team in UM Ross School of Business internal competition & competitor at Central Regional Competition at University of Texas at Austin McCombs School of Business.