

Education:

- The Jackson Laboratory**, Bar Harbor ME **Feb. 2019**
Audited graduate level mammalian genetics course
- University of Vermont** **2014-2018**
Bachelors of Science in Molecular Genetics, Chemistry Minor
- University of Otago**, New Zealand **Spring 2017**

Laboratory Experience:

- Dr. Laura Reinholdt**, The Jackson Lab, Bar Harbor ME, *Research Intern* **Jul. 2018-Jul. 2021**
Worked with a team to identify causative mutations of phenotypically mutant mice. Trained in various high throughput sequencing techniques, including Whole Exome and Whole Genomes sequencing. Prepared samples of DNA and RNA for sequencing, analyzed sequences, identified candidates, and validated candidates with PCR. Mastered live mouse handling techniques and became proficient in sterile tissue and cell culture.
- Dr. Christopher Berger**, UVM, Burlington VT, *Lab Intern* **Oct. 2017-May 2018**
Cloned the kinesin-3 motor protein, inducing gene mutations, and data analysis of run length on microtubules. Worked with different bacterial and animal cell lines. The goal of these experiments was to visualize how kinesin-3 run length differed after mutation to the K-loop.
- Dr. Mihnae Bostina**, Dunedin, New Zealand, *Lab Intern* **Feb.-June 2017**
Picked particles from electron microscopy images in order to obtain information on the molecular architecture of bacteriophages active against *P. syringae pv. actinidiae*. The lab then created 3D images using this information to further their research into the structure and functions of this phage.
- Dr. William Kilpatrick**, UVM, Burlington VT, *Lab Intern* **Summer 2016**
Aided in the development of a micro ecology study of mudpuppies in Lake Champlain. Gene extractions, PCR, gene alignment, and gel electrophoresis.

Publications:

- Sarsani, V. K., Raghupathy, N., Fiddes, I. T., Armstrong, J., Thibaud-Nissen, F., **Zinder, O.**, Bolisetty, M., Howe, K., Hinerfeld, D., Ruan, X., Rowe, L., Barter, M., Ananda, G., Paten, B., Weinstock, G. M., Churchill, G. A., Wiles, M. V., Schneider, V. A., Srivastava, A., & Reinholdt, L. G. (2019). The Genome of C57BL/6J "Eve", the Mother of the Laboratory Mouse Genome Reference Strain. *G3 (Bethesda, Md.)*, 9(6), 1795–1805. <https://doi.org/10.1534/g3.119.400071>
- Lessard, Dominique & **Zinder, Oraya** & Hotta, Takashi & Verhey, Kristen & Ohi, Ryoma & Berger, Christopher. (2019). Polyglutamylation of tubulin's C-terminal tail controls pausing and motility of kinesin-3 family member KIF1A. *Journal of Biological Chemistry*. 294. jbc.RA118.005765. 10.1074/jbc.RA118.005765

Presentations:

- Mice by the millions: Spontaneous mutations as new disease models, Mouse Clinic Video 1, July 2020, The Jackson Laboratory
- Spontaneous mutation identification using high throughput sequencing technologies, Mouse Clinic Video 2, July 2020, The Jackson Laboratory
- Kinesin-3 Mutagenesis, May 2018, University of Vermont

ORAYA J. ZINDER

142 Moore Street
Princeton, NJ 08540
ozinder24@gmail.com
609-649-9793

Computer Skills: Knowledgeable in High Performance Computing, Python, RStudio, Microsoft Office, Fiji, SnapGene, Photoshop, Lightroom and Premiere Pro

Additional Experience:

ojzphotography, Bar Harbor ME, *Owner* **Jan. 2020-Present**
Explored wildlife, nature, and astrophotography. Designed website for photo print sales, and maintained social media accounts.

Adventure Ropes Course, Burlington VT, *Facilitator* **June 2016-Sept. 2017**
Facilitated high and low ropes activities in order to create a safe and fun space for group bonding. Guided groups of 10-12 people through the ropes course for 4-8 hour durations.

JZA+D, LCC, Princeton NJ, *Office Assistant* **Summer 2015**
Organized materials library. Helped assemble material, finishes, furnishing presentations and binders for this Architecture firm.

AgriArk, Lawrence NJ, *Summer Intern* **Summer 2015**
Planted produce in a hydroponic environment, harvested fully grown produce, packaged for delivery to local restaurants. Worked with the company founder on food waste composting developing tea additive for hydroponic farming.

Volunteer:

UVM Hillel, Burlington VT, *Board Member* **Feb. 2015 - May 2018**
Facilitated group bonding activities, lead and participated in discussions as a student board member, aided in new employee interviews, planned programs for over 100 participants, and helped other students create and run programs.

Languages:
Proficient in Hebrew and American Sign Language;
Fair Knowledge of Italian and French

Interests:
Guitar, Violin and Oboe;
Ice Hockey, Skiing and Rock Climbing

Travel:
Traveled extensively in Israel, Italy, Costa Rica, Canada, New Zealand and the United States