Taruna Aggarwal

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Education

University of New Hampshire, Durham (UNH), 2016
Master of Science, Genetics with an emphasis on bioinformatics and genomics
University of California, Davis (UC Davis), 2010
Bachelor of Science, Genetics

Laboratory & Computational Experience

- Proficient in DNA & RNA extraction, PCR, NGS library preparation, culturing microbes, introgression crosses, and other techniques.
- Proficient in Python, R, bash, Unix/Linux, and NGS analysis software (GitHub Repository).

Work & Research Experience

- **Department of Nematology – Bik Lab, UC Riverside**, 2016-Present
- **Department of Molecular, Cellular, and Biomedical Sciences – MacManes Lab,** UNH, 2014-2016
  - Research focused on understanding the molecular mechanisms of pathogenicity in fungal species.
- **District of Columbia Public Schools,** Washington, DC, 2010-2012
  - Taught biology and environmental science to high school students in a low-income, inner-city school.
  - Enforced strict standards and provided individual pathways for success.
  - Implemented research-based instructional strategies to raise student achievement.
- **Evolution and Ecology Department – Kopp Lab,** UC Davis, 2007-2010
  - Examined the genetic basis of coloration differences in a fruit fly species called *Drosophila ananassae*.
- **Biology Undergraduate Scholars Program (BUSP),** Honors, UC Davis, 2008-2010
  - Conducted lab research, helped develop long-term planning strategies, and presented research at scientific conferences.
- **Collaborative Learning at the Interface of Mathematics and Biology (CLIMB),** UC Davis, 2008-2009
  - Collaborated with a research team of math and biology undergraduate students to develop an epidemiological model that examined the dynamics of measles in the United Kingdom.
  - Organized the CLIMB research conference, invited health professionals and faculty from across the country to participate, and developed an agenda for the conference.

Publications & Presentations

- Schuelke TA, Westbrook A, Broders K, Woeste K, MacManes MD. 2016. *De novo* Genome Assembly of *Geosmithia morbida*, the Causal Agent of Thousand Cankers Disease. *PeerJ* 4:e1952. https://doi.org/10.7717/peerj.1952
- Westbrook A, Ramsdell J, Schuelke TA, Normington L, Bergeron R, Thomas W, MacManes MD. 2016. PALADIN:Protein Alignment for Functional Profiling Whole Metagenome Shotgun Data. *In Review*.
- Schuelke TA, Woeste K, Broders K, MacManes MD. 2016. Comparative Genomics of *Geosmithia* species and *Grosmannia clavigera*. *In prep*.
- Constraints on the Use of Lifespan-Shortening Wolbachia to Control Dengue Fever. J. G. Schraiber, A. N. Kaczmarczyk, R. Kwok, M. Park, R. Silverstein, F. U. Rutaganira, T. Aggarwal, M. A. Schwemmer, C. L. Hom, R. K. Grosberg, S. J. Schreiber, *J. Theor. Biol.,* 2012, 297: 26-32.
- *y* and *e* Contribute to Abdominal Pigmentation Variation in *Drosophila ananassae*. Presented at the Developmental Biology 69th Annual Meeting, Albuquerque Convention Center, Albuquerque, NM, 2010.
- *y* and *e* Contribute to Abdominal Pigmentation Variation in *Drosophila ananassae*. Presented at Annual Biomedical Research Conference for Minority Students, Phoenix Convention Center, Phoenix, AZ, 2009.

Honors & Awards

- New Hampshire Agricultural Experiment Station, Research Award, UNH, 2016
- Research and Teaching Assistantships, UNH, 2014-2016
- Society for Developmental Biology 69th Annual Meeting, Albuquerque, NM, 2010
  - Sponsored by the Society for Developmental Biology to present my undergraduate research at annual conference.
- Annual Biomedical Research Conference for Minority Students, Phoenix, AZ, 2009
  - Received an award for *The Best Presentation* in Developmental Biological Sciences.
- Dean's List, Biological Sciences, 2008