## Kelly Sovacool

#### **EDUCATION**

Bachelor of Science, Biology

2014-2018

University of Kentucky, Lexington, KY

Minor: Computer Science

- 4-year Full Tuition Presidential Scholarship
- Lewis Honors College
- Honors Biology Scholar

#### RESEARCH

Undergraduate Lab Assistant

2015-present

Moseley Bioinformatics Lab, Dept. of Molec. & Cell. Biochemistry, University of Kentucky

Developing a computational tool for identifying sets of orthologous and paralogous gene products across any set of whole genomes to facilitate collinearity analysis and detection of gene duplication events.

## BIO395 Independent Research Student

2016-present

Weisrock Lab, Dept. of Biology, University of Kentucky

- Population structure analysis of the Ambystoma tiger salamander complex.
- Bayesian species delimitation of the Desmognathus dusky salamander complex.
- Writing Bash and Python scripts for managing sequence data.
- Developing a SNP calling pipeline for amplicon sequence data

### Undergraduate Lab Assistant

2015-2016

Jaromczyk Lab, Dept. of Computer Science, University of Kentucky

- Maintained the E. festucae genome project database.
- Applied methods of processing RNA-seq data to *C. quinoa* and the Coffee ringspot virus.

#### AWARDS

Oswald Research & Creativity Award, University of Kentucky

2017

- $\bullet\,$  Awarded a \$200 prize for second place in the Biological Sciences category.
- Manuscript title: Developing a Global Homology and Collinearity Analysis
  Framework for Identifying Gene Duplication Events. Supervised by Prof. Hunter
  NB Moseley.

Summer Research Grant, University of Kentucky

2017

- Awarded a \$2,000 grant by the UK Office of Undergraduate Research to work full time on a research project during the summer.
- Project title: Developing a Global Homology and Collinearity Analysis Framework for Identifying Gene Duplication Events. Supervised by Prof. Hunter NB Moseley.

# POSTERS & ORALS

Developing a Global Homology Analysis Framework for Comparative Genomics Supervised by Prof. Hunter NB Moseley.

- Poster presented at the Showcase of Undergraduate Scholars, University of Kentucky. April 25, 2018.
- Oral presentation given at the Systems Biology & Omics Integration Seminar Series, University of Kentucky. April 16, 2018.
- Poster presented at the National Conference on Undergraduate Research, University of Central Oklahoma. April 4-7, 2018.

Processing RNA-seq Reads of Plants Infected with the Coffee Ringspot Virus Supervised by Profs. Jerzy W Jaromczyk and Michael M Goodin.

- Poster presented at the Showcase of Undergraduate Scholars, University of Kentucky. April 27, 2016.
- Poster presented at the UT-KBRIN Bioinformatics Summit, Cadiz, KY. April 8-10, 2016.

The Effect of Meditation on Performance Supervised by Prof. Bruce O'Hara.

Poster presented at the Showcase of Undergraduate Scholars, University of Kentucky. April 29, 2015

## OTHER WORK Tutor

2012-2017

• Tutored high school and college students in Biology, Calculus, Chemistry, Computer Science, and Bioinformatics.

Sound Technician 2009-present

- Setting up, maintaining, repairing, and operating audio equipment for bands, churches, and other non-profit organizations.
- Operating the front of house, monitor, and recording systems during sound checks, rehearsals, services, and concerts.
- Training new sound techs in the art and science of live sound.