

# Bradley N. Jenner

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## EDUCATION

**B.S. with Honors in Biotechnology (Bioinformatics Emphasis)**

December, 2021

University of California, Davis

## RELATED COURSEWORK

Genetics & Genomics

Biochemistry & Cell Biology

Applied Bioinformatics

Computational / Structural Bioinformatics

Introduction to Data Structures

Probability Theory

Calculus & Linear Algebra

Applied Statistics

## SKILLS

Bioinformatic Analysis (RNAseq, Variant Analysis with Illumina and ONT Reads, Isoseq)

Bioinformatic Software and Pipeline Development (Python/C++/R/Bash)

Utilizing High Performance Computing Resources

Molecular Biology Techniques (PCR/qPCR, DNA/RNA Extraction)

Science Communication through Publications, Posters, and Oral Presentation

## PUBLICATIONS

- Henry, P.M., Pincot, D.D., Jenner, B.N., Borrero, C., Aviles, M., Nam, M.-H., Epstein, L., Knapp, S.J. and Gordon, T.R. (2021). Horizontal chromosome transfer and independent evolution drive diversification in *Fusarium oxysporum f. sp. fragariae*. *New Phytol.* <https://doi.org/10.1111/nph.17141>
- Gordon, T.R., Henry, P.M., Jenner, B.N., and Scott, J.C. (2021). Spontaneous changes in somatic compatibility in *Fusarium circinatum*. *Fungal Biology.* <https://doi.org/10.1016/j.funbio.2021.04.008>
- Catta-Preta, R., Zdilar, I., Jenner, B., Doisy, E.T., Tercovich, K., Nord, A.S., and Gurkoff, G.G. (2021). Transcriptional Pathology Evolves over Time in Rat Hippocampus after Lateral Fluid Percussion Traumatic Brain Injury. *Neurotrauma Reports.* <https://doi.org/10.1089/neur.2021.0021>

## EXPERIENCE

**Bioinformatics Assistant**, Bioinformatics Core, UC Davis

(March 2020 to Present)

- Performed a variety of bioinformatic analyses for Bioinformatics Core clients (RNAseq, Variant Analysis with Illumina and ONT Reads, Isoseq).
- Designed a novel algorithm (impact) for quantifying gene expression in TAGseq analyses.
- Contributed to open source bioinformatics software by developing a MultiQC module for the HTStream preprocessing toolkit.
- Lectured at professional workshops hosted by the Bioinformatics Core on data preprocessing and QA/QC.

**Laboratory/Bioinformatics Assistant**, Gordon Lab, UC Davis

(October 2017 to December 2021)

- Designed and conducted independent experiments investigating fungal/plant genomics and pathosystems.
- Analyzed DNA and RNA sequence data using bioinformatics software packages (HTStream, GATK, BWA, STAR, edgeR, topGO).
- Performed molecular biology laboratory procedures (PCR/qPCR, DNA/RNA Extraction).

**Neuroscience Bioinformatics Assistant**, Nord Lab, UC Davis (July 2019 to July 2020)

- Created/maintained laboratory webpages.
- Managed archival data. Designed and facilitated robust methods for data transfer to remote storage services.

**General Chemistry Learning Assistant**, UC Davis (January 2019 to March 2019)

- Assisted in educating undergraduate students about key concepts in Chemistry through lectures and tutoring.
- Established safe and comfortable learning environments for students by hosting group study sessions.

### **PRESENTATIONS**

**Poster, Northern California Computational Biology Symposium**, UC Davis (October 12, 2019)

- Presented findings to peers and faculty from multiple universities regarding the transcriptional responses of strawberry to various strains of *Fusarium oxysporum f. sp. fragaria*.

**Oral, Undergraduate Research Conference**, UC Davis (April 27, 2019)

- Presented findings for research regarding somatic compatibility group diversification in *Fusarium circinatum* via spontaneous mutation to peers and UC Davis faculty.