

Don (Donny) Q. Hoang, PhD

dhoang@versiti.org • Milwaukee, WI

Education

University of Wisconsin, Madison

PhD, August 2017 - November 2023
Microbiology

University of California, Davis

BSc, September 2010 - June 2014
Microbiology, minors in Entomology and Art

Skills

Data Analysis and Tools: R (tidyverse, ggplot2), Python, Unix/Linux bash scripting, Git, HPC (Slurm, HTCondor), interactive reporting, Microsoft products (Excel, PowerPoint, Word)

Domain Expertise: Microbial ecology, scientific communication, NGS analysis

Project Experience: Full-cycle research leadership, experimental design, collaborative and creative problem solving, mentorship and training

Communication: Grant writing, scientific publication, technical reports, oral presentations

Experience

Computational Biologist, Versiti Blood Research Institute

Computational Biologist, August 2024 - Present

- Analyzed complex biological data, including NGS (bulk RNA-seq, single-cell RNA-seq, etc.) and clinical data.
- Collaborated closely with researchers to design analysis workflows with clear hypotheses and statistical rigor, ensuring meaningful and actionable results.
- Translated complex scientific questions into bioinformatic workflows, facilitating efficient data processing and interpretation.
- Produced detailed reports and visual summaries to communicate findings effectively to both technical and non-technical audiences.

Currie Lab, University of Wisconsin, Madison

Graduate student, August 2017 - November 2023

- Led a field study in Gamboa, Panama, including project design, funding acquisition, coordinating international collaborators, experimental setup, data collection and analysis, to uncover microbial community dynamics.
- Analyzed over 15 TB of metagenomic and metatranscriptomic data to reveal microbial interactions and functions linked to plant biomass degradation.
- Translated broad research questions into experimental designs, integrating ecological theory, microbiology, and bioinformatics to investigate nutritional availability on microbial community responses.
- Mentored undergraduate and graduate-level trainees in scientific project design, coding, and data interpretation to improve lab-wide technical capacity.

Macfarlan Lab, NIH/NICHD

Postbac fellow, September 2014 - September 2016

Kopp Lab, University of California, Davis

Undergraduate research assistant, September 2011 - August 2014

Don (Donny) Q. Hoang, PhD

dhoang@versiti.org • Milwaukee, WI •

Peer-Reviewed Publications

Hoang D, Wilson L, Scheftgen A, Suen G, Currie C. (2024) Disturbance-Diversity Relationships of Microbial Communities Change Based on Growth Substrate. *mSystems*. DOI: <https://doi.org/10.1128/msystems.00887-23>

Francoeur C, May D, Thairu M, **Hoang D**, Panthofer O, Bugni T, Pupo M, Clardy J, Pinto-Tomás A, Currie C. (2021) *Burkholderia* from Fungus Gardens of Fungus-Growing Ants Produces Antifungals That Inhibit the Specialized Parasite *Escovopsis*. *Applied and Environmental Microbiology*. 87:e00178-21. DOI: <https://doi.org/10.1128/AEM.00178-21>

Wolf G, de Iaco A, Sun M, Bruno M, Tinkham M, **Hoang D**, Mitra A, Ralls S, Trono D, Macfarlan T. (2020) KRAB-zinc finger protein gene expansion in response to active retrotransposons in the murine lineage. *eLife*. DOI: 10.7554/eLife.56337

Patel A, Yang P, Tinkham M, Pradhan M, Sun M, Wang Y, **Hoang D**, Wolf G, Horton J, Zhang X, Macfarlan T, Cheng X. (2018) DNA conformation induces adaptable binding by tandem zinc finger proteins. *Cell*: Volume 173. Issue 1. 221-233. DOI: 10.1016/j.cell.2018.02.058

Yang P, Wang Y, **Hoang D**, Tinkham M, Patel A, Sun M, Wolf G, Baker M, Chien H, Lai N, Cheng X, Shen C, Macfarlan T. (2017) A placental growth factor is silenced in mouse embryos by zinc finger protein ZFP568. *Science*: Volume 356. Issue 6339. 757-759. DOI: 10.1126/science.aah6895

Hoang D, Kopp A, Chandler JA. (2015) Interactions between *Drosophila* and its natural yeast symbionts—Is *Saccharomyces cerevisiae* a good model for studying the fly-yeast relationship? *PeerJ*: DOI: 10.7717/peerj.1116

Atallah J, Vurens G, Mavong S, Mutti A, **Hoang D**, Kopp A. (2014) Sex-specific repression of *dachshund* is required for *Drosophila* sex comb development. *Developmental Biology*: Volume 386. Issue 2. 440-447. DOI: 10.1016/j.ydbio.2013.12.017

Other Experience and Awards

Smithsonian Tropical Research Short-term Fellowship 2022

Competitive award that provided funding for fieldwork in Gamboa, Panama

Kavli Institute for Theoretical Physics – UC Santa Barbara 2021

Developed models and reproducible workflows to focus on the discovery of principles underlying microbial community structure, function and evolution

Molecular Biosciences Training Grant 2017

Two-year NIH NRSA (T32) predoctoral fellowship

SciMed Graduate Research Scholars Fellowship 2017

Competitive two-year award for underrepresented graduate students at UW-Madison