

# NOAH J. SPENCER

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## EDUCATION

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- 2021– **Ph.D. Student, Evolutionary Biology**  
Arizona State University, Tempe, AZ, USA
- 2021 **B.S. Biology** (Genomics emphasis), *summa cum laude*  
West Virginia University, Morgantown, WV, USA

**RESEARCH INTERESTS:** Endosymbiosis, evolutionary biology, cell biology, prokaryotic and organellar genome evolution, mutation, intracellular transport

## RESEARCH EXPERIENCE

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- 2021– **Center for Mechanisms of Evolution, Arizona State University**  
*Advisor: Dr. John McCutcheon*
- Characterized the effects of genome fragmentation on transcription in an ancient cicada endosymbiont, *Hodgkinia cicadicola*.
- 2017–2021 **Department of Biology, West Virginia University**  
*Advisor: Dr. Rita Rio*
- Demonstrated the quorum sensing-mediated establishment and vertical transmission of *Sodalis praecaptivus* in tsetse flies.

## PEER-REVIEWED RESEARCH PUBLICATIONS

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- 2023 **Spencer N**, Łukasik P, Meyer M, Veloso C, McCutcheon JP. No Transcriptional Compensation for Extreme Gene Dosage Imbalance In Fragmented Endosymbionts of Cicadas. *\*In review\**
- 2021 Medina Munoz M, Brenner C, Richmond D, **Spencer N**, Rio RVM. The holobiont transcriptome of teneral tsetse fly species of varying vector competence. *BMC Genomics*. 22(1), 400.
- 2020 Medina Munoz M, **Spencer N**, Enomoto S, Dale C, Rio RVM. Quorum sensing sets the stage for the establishment and vertical transmission of *Sodalis praecaptivus* in tsetse flies. *PLOS Genet*. 16, e1008992.

## GRANTS, FELLOWSHIPS, & AWARDS

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2022–2023	ASU Graduate College University Grant ( <u>\$10K</u> )
2021–2026	National Science Foundation Graduate Research Fellowship ( <u>\$138K</u> )
2021	WVU Outstanding Senior
2020	WVU Eberly Scholar
2019	WVU Honors EXCEL Grant ( <u>\$1K</u> )
2019	WVU SURE Enrichment Grant ( <u>\$500</u> )

## CONTRIBUTED PRESENTATIONS

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### *Oral Presentations*

2022	Increases in Genome Complexity Exacerbate Transcript Dosage Imbalance in a Cicada Endosymbiont. 8 <sup>th</sup> Conference on Beneficial Microbes. Madison, WI.
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### *Poster Presentations*

2023	No Transcriptional Compensation for Extreme Gene Dosage Imbalance In Fragmented Endosymbionts of Cicadas. 2023 EMBL Symposium on the Cellular Mechanics of Symbiosis. Heidelberg, Germany. ( <i>Also presented at Biodesign Fusion 2023*. Tempe, AZ.</i> )
2022	No Transcriptional Compensation for Extreme Gene Dosage Imbalance In Fragmented Endosymbionts of Cicadas. 2022 Annual Symposium for Mechanisms of Cellular Evolution. Tempe, AZ.
2021	Genome Sequencing Provides Insight into Coevolution Between an Insect Vector and Its Microbial Partner. WVU Online Spring Undergraduate Research Symposium. **
2020	Plasmid DNA Sequence Analysis Elucidates Evolution of Species-Specific Tsetse Fly Symbiotic Bacteria. WVU Online Spring Undergraduate Research Symposium.
2019	Characterizing Plasmid Functional Roles Within Tsetse Fly-Associated Symbiotic Bacteria. WVU Summer Undergraduate Research Symposium. Morgantown, WV. ***

\* Winner, Award for Best Use of Big Data

\*\* Runner-up, Best Poster in Biological Sciences Category

\*\*\* Winner, Best Poster in Biological Sciences Category

## TEACHING EXPERIENCE

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- 2022–            *Volunteer with Prison Biology Education Program, ASU*
- Taught in-person, developed course materials and assessments, and provided feedback on student work for introductory biology courses offered at Eyman Prison Complex in Florence, AZ.
- 2018–2021    *Tutor at MindFit Academic Enhancement, WVU*
- Provided over 350 hours of sustained, one-on-one academic coaching to students with learning-related difficulties.
- 2019            *Cell and Molecular Biology Teaching Assistant, WVU*
- Provided feedback on over 350 written assignments, held weekly office hours to provide one-on-one support, and assisted with course design.

## INVITED PANELS & TALKS

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- 2023            *Grad Student Panel, ASU School of Life Sciences Graduate Recruitment*
- 2022            *Grad Student Panel, Biodesign Institute Summer Internship Program for Community College Students*
- WVU ASPIRE Academy Alumni Panel*
- 2021            *WVU Honors EXCEL Seminar: "The Secret of My Success: Learning from Recent Honors EXCEL Graduates"*
- WVU Summer Undergraduate Research Symposium panel, "Get the Most from Your Mentor"*
- 2020            *WVU Summer Undergraduate Research Symposium panel, "Get the Most from Your Mentor"*
- WVU undergraduate research webinar for incoming freshmen; WVU Honors EXCEL Academy*

## PROFESSIONAL SOCIETY AFFILIATIONS

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Society for Molecular Biology & Evolution

American Society for Microbiology