Jonathan O. Benjamin

(540) 555-3000 | job@uwf.edu
1200-F University Terrace | Destin, FL 32514

OBJECTIVE

Post-doctoral research position related to DNA sequencing.

EDUCATION

Doctor of Philosophy, Microbiology, Expected June 2027
Virginia Polytechnic Institute and State University (Virginia Tech), Blacksburg, VA
Dissertation: Regulation of aerobic gene expression in Escherichia coli
Advisor: Thomas W. Adamson

Master of Science, Biology, December 2024
University of West Florida, Pensacola, FL
Thesis: An examination of anthocyanin gene copy number in two northwest Delphinium species

Bachelor of Science, Biology: Minor: Chemistry, May 2022
University of West Florida, Pensacola, FL

HONORS/AFFILIATIONS

American Society for Microbiology, May 2022-Present
Sigma Xi, The Scientific Research Society, August 2021-Present
National Institutes of Health Pre-doctoral Fellowship, May 2023-December 2024
Cunnigham Disseration Fellowship (Virginia Tech research grant), May 2022-May 2023
Phi Beta Kappa, inducted May 2017

RESEARCH INTERESTS

Regulation of aerobic gene expression
DNA sequencing and determination of DNA binding domains

TEACHING INTERESTS

Undergraduate biology and microbiology courses including microbiology, genetics, and microbial genetics
Graduate microbiology courses.

RELATED EXPERIENCE

Research

Pre-Doctoral Fellow/Ph.D. Research, Department of Biology, University of West Florida, Pensacola, FL
August 2026-Present

- Design and conduct experiments for purification and characterization of the repressor for the sn-glycerol 3-phosphate regulon of *Escherichia coli* K-12
- Identified structure of the *glp* repressor and determined DNA binding domains

Research Fellow, National Institutes of Health, Poolesville, MD
August 2025-August 2026

- Synthesized and purified hundreds of oligonucleotides
- Sequenced DNA
- Constructed a cosmid library from human blood DNA

Research Assistant, Department of Biology, University of West Florida, Pensacola, FL
January 2025-August 2025

- Performed protein bioassays and prepared tissure cultures
- Assisted with DNA preparations for DNA fingerprinting, including isolating DNA and gel electrophoresis
- Analyzed data to present at the Student Scholars Symposium

Biology Research Technician, Biotech Research Labratories, Inc., Roanoke, VA
August 2021-December 2024

- Participated in DNA fingerprinting project
- Digested genomic DNA with restriction enzymes
- Separated digested DNA fragments by electrophoresis through agarose gels and transferring via employment of the Southern Blotting Technique
- Prepared buffers, photographed gels, and developed autoradiographs

Teaching

Labratory Instructor, Department of Biology, University of West Florida, Pensacola, FL
January 2025-Present

- Taught 2 labratory sections each semester for undergraduate introductory Microbiology course
- Prepared and coordinated the use of labratory materials, equipment, and resources

Teaching Assistant, Department of Chemistry, University of West Florida, Pensacola, FL
January 2024-May 2025; August 2025-Present

- Advised undergraduate chemistry students during office hours
- Graded quizzes and assignments

PUBLICATIONS

Doctor, J. B. and T. W. Advisor. Structure of the *glp* repressor and the determination of DNA binding domains. (in preparation)

Doctor, J. B. and T. W. Advisor, 2026. Structures of the promoter and operator of the glpD gene encoding aerobic *sn*-glycerol 3-phosphate dehydrogenase of *Escherichia coli* K-12. J. Bacteriol. 52: 136-162.

Advisor, T. W., J. B. Doctor, A. Colleague, and S. Colleague. 2024. Purification and characterization of the repressor for the *sn*-glycerol 3-phosphate regulon of *Escherichia coli* K-12. J. Biol. Chem. 118: 98-132.

ABSTRACTS

Doctor, J. B. and T. W. Advisor, 2026. Nucleotide sequence of the *glpR* gene encoding the repressor of *Escherichia coli* K-12. Am. Society for Microbiol., Anaheim, CA.

Advisor, T. W., J. B. Doctor, A. Colleague, S. Colleague, and A. M. Graduate. 2025. Tandem operators control sn-glycerol 3-phosphate glp gene expression in Escherichia coli Gordon Res. Conf., Meriden, NH.

Doctor, J. B. and T. W. Advisor. 2024. Regulation of aerobic sn-glycerol 3-phosphate dehydrogenase glpD gene expression in Escherichia coli K-12. Am. Soc. for Microbiol., Miami Beach, FL.