

## **Marek K. Sliwinski PhD**

### **Associate Professor**

**Area of specialization: Molecular genetics**

### **Degrees earned:**

- Ph.D., University of Wisconsin, Madison, 2003, Dissertation:  
*Crenarchaeotes inhabiting mesophilic soils and terrestrial plant rhizospheres*
- B.A., University of California, San Diego, Psychology, 1997
- B.S., University of California, San Diego, Microbiology, 1997

### **Academic teaching and related experience:**

Associate Professor	University of Northern Iowa, Biology Department	2014 – present
Assistant Professor	University of Northern Iowa, Biology Department	2008 – 2014
Visiting Asst. Professor	Denison University, Department of Biology	2007 – 2008

### **Scholarship/research/publications/presentations:**

Presentation at the *85th NCB Meeting of American Society for Microbiology*, Nov 7-8, 2025. Garcia T., Sliwinski M. K., Developing a DNA extraction method for mineral abundant limestone cave samples.

Poster at the *85th NCB Meeting of American Society for Microbiology*, Nov 7-8, 2025. Schoening G., Sliwinski M. K., Comparative evaluation of soil protein extraction protocols for proteomic profiling.

Presentation at the *Iowa Space Grant Consortium Research Symposium*, April 15, 2025. Garcia T., Sebree J., Sliwinski M. K., Genetic study of Wind Cave National Park as an astrobiological analog.

Heinzman, Z., Schmidt, C., Sliwinski, M. K., & Goonesekere, N. C. (2021). The case for GNMT as a biomarker and a therapeutic target in pancreatic cancer. *Pharmaceuticals*, 14(3), 209.

Presentation at the *8th Annual FUTURE in Biomedicine Symposium*, July 29, 2016. Infection of human skin explants with a model Ebola virus.

Swanson, C. A., Sliwinski, M. K. (2013) Archaeal assemblages inhabiting temperate mixed forest soil fluctuate in taxon composition and spatial distribution over time. *Archaea* 2013:ID346171.

Swanson, C. A., Sliwinski, M. K. (2013) One-dimensional TRFLP-SSCP is an effective DNA fingerprinting strategy for soil Archaea that is able to simultaneously differentiate broad taxonomic clades based on terminal fragment length polymorphisms and closely related sequences based on single stranded conformation polymorphisms. *Journal of Microbiological Methods* 94:317-324.

### **Summary of external grants received:**

- *Wind Cave as a Terrestrial Analog for Possible Exobiological Environments off Earth*. 2020. Iowa Space Grant Consortium under NASA Award No.

80NSSC20M0107. PI J. Sebree. Co-PIs K. Elgersma, J. Peters, M. Iqbal, F. Soans and M.K. Sliwinski. Awarded \$170,000 by NASA and \$207,895 UNI institutional match over 4 years.

My contribution involved writing portions of the grant and budget. For this project, my lab will collect environmental DNA to sample microbes.

- *Modernizing Microbiology Labs to Improve Education For Biology, Pre-Allied Health Students*. 2018. Roy J. Carver Charitable Trust. Co-PI with J. Jurgenson, N. Rodriguez, M. Walter and D. Saunders. \$347,936. Awarded \$250,000 by Carver and \$97,936 UNI institutional match.

My contribution as co-PI on this grant involved writing portions of the grant and budget. After the grant was funded, I oversaw the purchase and installation of the equipment.

- *University of Iowa FUTURE Fellowship*. Awarded \$6000 summer salary and \$3000 research stipend to conduct research at a UI host lab. 2016 and 2017.

### **Summary of internal grants received:**

- UNI Capacity Building Scholarship Grant from the College of Humanities, Arts and Sciences, Co-PI Nalin Goonesekere, \$3985, 2020.
- UNI Graduate College Summer Fellowship, \$6442 salary stipend for eight-weeks during summer 2013.
- UNI Pre-tenure Summer Fellowship Award from the Office of the Executive Vice President and Provost, \$4500 salary stipend for four-weeks during summer 2013.
- UNI Capacity Building Scholarship Grant from the College of Humanities, Arts and Sciences, \$1000, 2012.
- UNI NSF EPSCoR Small Grant, \$1500 for Summer 2012.

### **Summary of service activities (2012 through present):**

- Mentor for Summer Undergraduate Research Program (SURP) students in 2013, 2015 (program coordinator), 2020, 2021, 2025.
- UNI STEM 1-week summer camp for high school students, director of *Biotech Camp: Tools of the Trade*, 2019 - 2026
- Iowa Science Olympiad State Tournament event planner and supervisor 2019, 2020 and 2022.
- Mentor for a UI funded FUTURE Summer Undergraduate Researcher, 2016.
- SGID course evaluator for UNI faculty from 2015 to present.
- Board member of the Waterloo Visiting Nursing Association (2015 - 2022)
- Faculty host during Second Annual UNI Think / Thrive Day, for visiting high-school students. March 15, 2013.
- UNI Bromann Biology Update Conference, presenter in 2012, 2015, 2017.
- Scientific Reviewer for manuscripts: Archaea (2013), Electrophoresis (2014) and book chapters: Microbiology (2017), The Story of Life (2017)
- Tri-Beta Biological Honors Society faculty advisor (2014-2025).
- Committees at the department level
  - 2024-2025 Search committee for Microbiologist, hired Dr. DeWolf

2008-2013 Greenhouse Committee

2008-2023 Safety Committee

2015-2016, Professional Assessment Subcommittee

2018-2019 Search committee for Cell and Molecular Biologist, hired Dr. Jackson

2020-2022 Professional Assessment Subcommittee, Chair