

CURRICULUM VITAE

Jennifer Boddicker, Ph.D.

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Education

B.S. Microbiology

The University of Georgia

Ph.D. Microbiology

The University of Iowa

Skills and Qualifications

- **Biology and microbiology instruction**
 - Over 10 years in person and remote experience
 - Experience teaching diverse age groups and cultural backgrounds
- Laboratory instruction
- Curriculum planning, review, and design
- Student advisement
- Blackboard education platform
- Research project design
- Research team management
- Molecular diagnostic testing, including quantitative real time PCR
- Excellent oral and written communication skills
- Microsoft Office

Relevant Experience

Florida Gulf Coast University, Visiting Assistant Professor

- Teach pathogenic microbiology and general microbiology

Keiser University Naples, full time faculty 2020 – 2022

- Teach biology and advanced biology
- Teach general microbiology
- Develop laboratory curriculum for general microbiology
- Manage teaching laboratory for general microbiology
- Direct campus Teaching and Learning Committee
- Advise 60 + pre-BSN students

- Develop Biomedical Waste Operating Plan to ensure compliance with Florida Department of Health for biohazardous waste
- Develop Biohazardous Waste and Chemical Spill Plan
- Train staff and faculty on biohazardous waste and spill management

University of Iowa, Full time faculty 2007 - 2013

- Taught Pathogenic Bacteriology, Microbial Genetics, Microbial Physiology, Dental Microbiology, Nursing Microbiology, Principles of Infectious Diseases, and Bacterial Diversity, along with associated laboratory courses
- Developed and wrote laboratory manual for Bacterial Diversity
- Managed and mentored graduate student teaching assistants for various lab courses

Emerging Infectious Diseases Research Fellow

Centers for Disease Control and Iowa Public Health Laboratory
Supervisor, Dr. Mike Pentella

- Designed and implemented QRT-PCR diagnostic test for mumps virus
(See publication 8)
- Worked to establish 16s rRNA sequencing in bacteriology reference laboratory

Postdoctoral Fellow

The University of Iowa
Supervisor, Dr. Steven Clegg

- Designed protocol and managed team of research assistants to perform signature tagged mutagenesis in *Klebsiella pneumoniae* to identify mutations decreasing biofilm formation and disease in mouse model
(See publication 7)

Honors, Awards, Recognitions, Outstanding Achievements

- William Faulkner Wisdom novel-in-progress semi-finalist for SHINE, 2019
- Naples Daily News endorsed candidate for Florida House District 80, 2018
- Florida Writers Association Book of the Year and William Faulkner Wisdom Novel Semi-Finalist for CLEANING HOUSE **(See publication 12)**
- Centers for Disease Control Emerging Infectious Diseases Fellowship

- Iowa Kidney Disease, Hypertension, and Cell Biology Institutional Research Fellowship
- NIH predoctoral training grant, Training in Mechanisms of Parasitism

Publications and Creative Works

1. Wilson, R.W., Libby, S.J., Freet, A.M., **Boddicker, J.D.**, Fahlen, T.F., and Jones, B.D. (2001) Fis, a DNA nucleoid-associated protein, is involved in *Salmonella typhimurium* SPI-1 invasion gene expression. *Mol Microbiol* **39**: 79-88.
2. Fahlen, T.F., Wilson, R.W., **Boddicker, J.D.**, and Jones, B.D. (2001) Hha is a negative modulator of *hilA* transcription, the *Salmonella typhimurium* invasion gene transcriptional activator. *J Bacteriol* **183**: 6620-6629
3. **Boddicker, J.D.**, Ledebor, N.A., Jagnow, J., Jones, B.D., and Clegg, S. (2002) Differential binding to and biofilm formation on, HEp-2 cells by *Salmonella enterica* Serovar Typhimurium is dependent upon allelic variation in the *fimH* gene of the *fim* gene cluster. *Mol Microbiol* **45**: 1255-1265.
4. **Boddicker, J.D.** and Jones, B.D. (2002) *Salmonella* invasion gene regulation: Being sensitive to the environment. Review for 2002 Agricultural Biotechnology Symposium: Post-genome analysis of microbial function. Seoul National University. 1-30
5. **Boddicker, J.D.**, Knosp, B.M., and Jones, B.D. (2003) Transcription of the *Salmonella* invasion gene activator, *hilA*, requires HilD activation in the absence of negative regulators. *J Bacteriol* **185**: 525-533
6. **Boddicker, J.D.**, Jones, B.D. (2004) Lon protease activity causes down-regulation of *Salmonella* pathogenicity island 1 invasion gene expression after infection of epithelial cells. *Infect Immun* **72**: 2002-2013.
7. **Boddicker, J.D.**, Anderson, R.A., Jagnow, J.L., Clegg, S. (2006). Signature-tagged mutagenesis of *Klebsiella pneumoniae* to identify genes that influence biofilm formation on extracellular matrix material. *Infect Immun* **74**: 4590-4597
8. **Boddicker, J.D.**, Rota, P, Kreman, T, Wangemann, A, Thompson, R, Bellini, B, Pentella, M, Desjardin, L.E. (2007) Real time RT-PCR for the detection of mumps virus in clinical specimens. *J Clin Microbiol.* **45(9)**: 2902–2908.

9. Müller S, Strack SN, Ryan SE, Shawgo M, Walling A, Harris S, Chambers C, **Boddicker J.D.**, Kirby JR. 2016. Identification of functions affecting predator-prey interactions between *Myxococcus xanthus* and *Bacillus subtilis*. *J Bacteriol.* **198:3335–3344**
10. *Deep Breath*, short story, *Coe Review*, 2013
11. *The Ultimate Cliche´*, short story, *New Plains Review*, 2014
12. *Cleaning House*, Good Life Publishing, 2017

Membership in Professional Organizations

- American Society for Microbiology
- Florida Writers Association

Membership in Civic Organizations

- League of Women Voters
- American Association of University Women