



Postdoctoral Scholar in Insect Physiology

A postdoctoral position is available to work on analysis of the gut and salivary gland proteomes of a major hemipteran pest of agricultural importance. The management of pest insects is confounded by the arrival of invasive pest species and the evolution of insect resistance to current management approaches. Most of the alternative approaches for management act via the gut, including the use of bacteria-derived pesticidal proteins, viruses and gene silencing RNAs. The integrity of these bioactives can also be compromised by salivary enzymes released into plants as hemipteran pests feed. Detailed knowledge of the proteins on the surface of the gut epithelium and in the salivary gland is important for optimization of established technologies that target- or enter via- the gut, and for identification of new targets.

Please see the following papers for additional insight: [C.S. Tavares et al., 2022](#) J. Proteomics; [J. Jimenez et al., 2024](#) Arch. Insect Biochem. Physiol.

Responsibilities:

Responsibilities include 1) mentoring of undergraduate student assistant who will assist with dissections, 2) preparation of brush border membrane vesicles, 3) proteomic analyses.

Required Qualifications:

- PhD in entomology, biochemistry or a related area
- Demonstrated productivity evidenced by publication record

Preferred qualifications:

- Research experience with insect physiology and bioinformatics
- Strong communication and organizational skills.

Location: This position is based in the laboratory of Dr. Bryony C. Bonning, Eminent Scholar and Professor, and / or Dr. Daniel Swale, Associate Professor, in the [Department of Entomology and Nematology](#) at University of Florida. Both the [Bonning lab](#) and the [Swale lab](#) provide outstanding infrastructure for cutting-edge research and both have a strong record of innovation and trainee placement within the agricultural biotechnology industry sector, USDA and academia.

University of Florida has the largest Entomology and Nematology department in the nation, with outstanding facilities. The diverse faculty has strengths in both basic and applied research, and strong collaborative and interdepartmental interactions. Gainesville, Florida is consistently ranked among the [Top 10 Best College Towns](#) in the U.S.

How to Apply: Candidates should apply by emailing a single pdf file with “PD Application – Hemiptera” in the subject line, containing 1) a statement of research experience, interests and career goals, 2) curriculum vitae including complete publication list, 3) names, e-mail addresses and telephone numbers for three references to: Dr. B. C. Bonning, E-mail: bbonning@ufl.edu Review of applications will begin on **Monday, January 12th, 2026** and continue until the position has been filled.

The Foundation for The Gator Nation

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