

Postdoctoral Position in Molecular Mechanisms of Repeated Evolution of Insular Dwarfism at Auburn University

The Schwartz Lab is accepting applications for enthusiastic, creative postdoctoral scholars to join a growing research team on an NSF-funded project that aims to identify the mechanistic basis for how complex traits can be altered in natural populations and at what levels (from the ecological factors to the physiology and underlying genetic networks) and the degree to which these mechanisms are shared across species. To do this we will contrast mainland California and Channel Island populations for each of five reptile species (three that demonstrate insular dwarfism and two that do not) integrating data from life history traits, endocrine physiology, cellular signaling, and genomics.



The selected applicant will work closely with other graduate students and post-docs in the Schwartz Lab on the NSF funded project “[How to get SMAL: Studying “island dwarfism”](#)” and other related projects. This project is in collaboration with Dr. Amanda Sparkman at Westmont College (Santa Barbara, CA) and Dr. Dave Miller at Penn State who is also recruiting a graduate student on this project to focus on the life history traits and demographic modeling. The postdoc will be expected to produce first authored papers, contribute to co-authored papers, and assist training graduate students. Additional responsibilities of the postdoc will include the following based on their interests: extended reptile field work (weeks to months) on mainland California and the Channel Islands; reptile population/functional/conservation genomics (from library preps, bioinformatics, through statistical analyses); and reptile cell culture experiments.

Required criteria:

- Candidate must have a track record of addressing scientific problems in an innovative, thoughtful, and systematic manner
- Candidate must possess excellent written and interpersonal communication skills
- Candidate must have a strong publication record in physiology or functional genomics
- Candidate must have a PhD at time of employment and meet eligibility requirements to work in the United States at the time appointment is to begin and continue working legally for the proposed term of the appointment.

The ideal candidate would have a strong background in one or more of these areas: conducting bioinformatic analyses of large-scale data such as population or functional genomics, cell culture experiments, field experience working with reptiles. Whatever their background, they must have a strong interest in evolutionary biology and understating molecular mechanism driving life history traits.

Selected applicants will also benefit from presenting at national meetings, attending workshops, opportunities for teaching as instructor of record, and career development. Additional lab funds for independent projects are available upon written proposal submission. Persons from groups typically under-represented in science are strongly encouraged to apply. Our research groups are family-friendly and value diversity to create an inclusive and equitable environment, along with the efforts by the College of Sciences and Mathematics.

We strive for our research team members to be passionate about science and working with us to create a diverse, equitable, and supportive research environment. The Department of Biological Sciences at Auburn University is a highly collaborative and friendly place to work. In combination with efforts in the College of Sciences and Mathematics, we have strong support and mentoring for our graduate students and are committed to improving diversity and inclusivity within our Department and College. Our research

group is family-friendly and value diversity to create an inclusive and equitable environment, please read more about them here:

Auburn University runs several high-performance computing clusters (<https://hpc.auburn.edu/hpc/index.php>) and we also have access to use the Alabama Supercomputer (<https://www.asc.edu/>). Auburn University is a land-grant institution and is an EEO/Vet/Disability Employer.

This is a full-time, twelve-month, non-tenure track position beginning of 2023 or 2024, for a term of one year with up to 2.5 years possible depending on performance. Applicants should email the following to Tonia Schwartz (tss0019@auburn.edu) with header: Dwarf Reptile Postdoc.

- **CV including a list of three references.**
- **A letter of interest that describes: (1) your general research interests, (2) your past experiences with demonstrated evidence of your accomplishments and skills including writing and statistical analyses, (3) why you think you would be a good fit in for the project and my research team, and (4) what you hope to gain from your post-doctoral experience.**

For more information about the lab see:

Schwartz Lab: <http://www.schwartzlab-ecoevolutionarygenomics.org/>