



**Center for Biological Clocks Research
Department of Biology, Texas A&M University**



**4-year NSF funded postdoctoral position in the Merlin lab
Molecular bases underlying photoperiodism in monarch butterflies**



The Merlin lab is seeking a postdoctoral associate to work on a newly funded project that investigates the mechanisms underlying photoperiodism in monarch butterflies. This project extends on our findings showing that photoperiodic and circadian clock regulation of the vitamin A pathway in the brain mediates seasonal responsiveness (Iiams et al., PNAS, 2019), and seeks to characterize the role of vitamin A in either the production of a photoperiodic photoreceptor or seasonal transcriptional reprogramming. The project will utilize contemporary techniques and approaches, including CRISPR/Cas9 for the production of loss-of-function mutants and various state-of-the-art high-throughput sequencing technologies (bulk and single-cell RNA-seq).

Interested candidates should have a Doctoral degree (PhD, MD, MD/PhD or equivalent) and background in molecular biology and bioinformatics. While experience in functional genomics is not required, the successful candidate will be expected to learn CRISPR-based reverse genetics approaches.

Application Instructions: Interested candidates should submit the following documents by email to cmerlin@bio.tamu.edu:

- (1) A cover letter outlining your research interests and career goals.
- (2) A CV that includes research experience, technical and soft skills, and a list of publications.
- (3) The contact information of three professional references. Reference letters are not required at this stage, but will be during the final selection process.

Review of applications will begin immediately and will continue until the position is filled.

About the lab and Texas A&M University: Our lab offers a dynamic, collegial and multicultural environment that fosters interactions, scientific discussions, and collaborations. We are affiliated with the Department of Biology (<https://bio.tamu.edu>), the Program of Genetics (<https://genetics.tamu.edu>), the Program of Ecology and Evolutionary Biology (<https://eeb.tamu.edu>), and the Program of Neuroscience (<https://tamin.tamu.edu>). We are also part of the Center for Biological Clocks Research (<https://clocks.tamu.edu>), which brings together ten labs working on biological rhythms within the department (Bell-Pedersen, Earnest, Hardin, Jones, Keene, Li, Menet, Merlin, Sato, and Zoran). Texas A&M is a Tier 1 research institution that ranks 14th in the US for research expenditure with more than \$1.131 billion in 2020. Texas A&M hosts many state-of-the-art research facilities, including a genomics core and a High-Performance Research Computing core. Bryan-College Station, home of Texas A&M, is a vibrant, dynamic, and rapidly growing community that offers cultural diversity, entertainment, job opportunities, and overall quality of life. Located in the heart of the Houston-Dallas-Austin triangle, the region offers the modern amenities of a big city with a warm, small-town charm, and low cost of living, making it an ideal place to live. Texas A&M University is committed to enriching the learning and working environment for all visitors, students, faculty, and staff by promoting a culture that embraces inclusion, diversity, equity, and accountability. Diverse perspectives, talents, and identities are vital to accomplishing our mission and living our core values.