UNIVERSITY OF WISCONSIN WHITEWATER
COLLEGE of LETTERS AND SCIENCES
Biological Sciences

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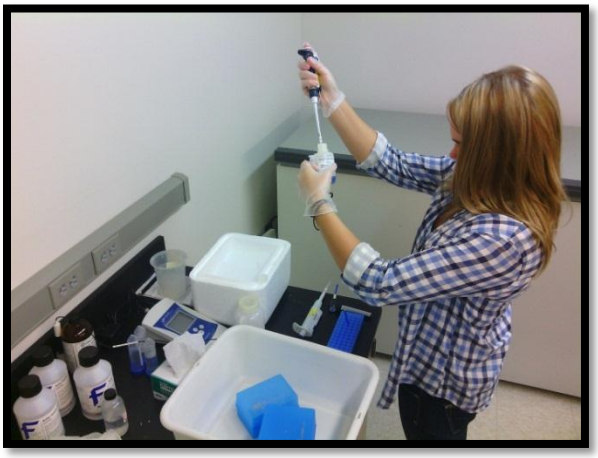
Education:
B.S. Lebanon Valley College
Ph.D. University of Virginia

Research Interests: Molecular biology/Development/Circadian Rhythm. We use the African Clawed Frog (*Xenopus laevis*) to address two questions. First, when during development do embryonic organs attain a circadian rhythm and become synchronized with the external environment? Second, do circadian genes play other roles during the development that are not related to timing a 24 hour day? We use various molecular (Real Time PCR), molecular genetic (morpholino and mRNA injection), and embryological (dissection, transplantation) techniques to address these questions. We are currently working on developing transgenic reporter lines of *Xenopus laevis* that will allow us to visualize gene expression in a live embryo or tadpole.

Current Research projects:

- Investigation of the effects of depletion and overexpression of specific circadian proteins on embryonic organs and tissues (somites, heart, kidney, etc).
- Characterization of the onset of circadian rhythm in embryonic organs: heart, kidney, ear, nose, eye.
- Building genetic constructs that will drive firefly luciferase or green fluorescent protein expression under the control of a circadian gene promoter in transgenic tadpoles.



Student Testimonials:

Michelle Gizowski (2013): *"I had an awesome time with my mentor Dr. Curran in her lab this last semester! I have learned so much from her whether it was just normal lab techniques or specifics on our project. Being a part of her lab has really helped me realize that I am in the right field and how much I have learned at UW- Whitewater while working on my bachelor's [degree]."*