



UNIVERSITY OF
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Department of Zoology

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██████████ Vice President for Administration
Re: Human Anatomy and Physiology Faculty Searches
██████████
P.O. Box 100547
Florence, SC 29501-0547

Dear Search Committee,

I am responding to your advertisement in the *Chronicle of Higher Education* for the Assistant Professor positions in Human Anatomy (#04-03) and Physiology (#04-04) in the Department of Biology at Francis Marion University. Dr. Julia Krebs suggested that I apply for both searches, as I am qualified for and interested in either position. I will earn my doctorate from the University of Florida in May 2004, working under the guidance of Dr. Louis Guillette. (Dissertation title: "Influence of insulin-like growth factor-1 and endocrine-disrupting contaminants on amphibian reproduction and steroidogenesis")

My goal is to work in an academic environment that emphasizes excellence in undergraduate teaching and student research. My teaching experience includes 7 years of laboratory instruction and guest lectures in General Biology and Physiology. At the University of Florida, I have taught 12 laboratory sections of Physiology and 16 laboratory sections of General Biology. I have also been a discussion leader for 3 sections of Physiology. I rely on my 6 years of professional veterinary experience to facilitate student learning and I utilize practical examples in my classes such as hands-on demonstrations and real-world applications of concepts. Additionally, working closely with undergraduates in my doctoral research program has allowed me to combine my passions for teaching and research; I have mentored 22 undergraduate research projects and 3 senior honors theses. Six of my former students have been accepted to graduate, veterinary, or medical programs. At Francis Marion University I would look forward to teaching Physiology or Human Anatomy courses and developing upper level courses in my area of expertise. I would also welcome the opportunity to mentor undergraduate research projects and facilitate the professional development of my students.

At Francis Marion University I would also like to initiate a productive, student-friendly research program focused on endocrine physiology and reproductive morphology. My research examines the effects of environmental contaminants on wildlife reproductive physiology, organ systems, and cell morphology. In my doctoral research, I have shown that frogs exhibit altered reproductive physiology when exposed to relatively low doses of nitrate, a common aquatic pollutant. The nitrate-exposed animals also exhibit increased levels of hormones that are associated with cancer. I plan to expand on these studies at FMU and examine other animals (including turtles, fish, and snakes) that rely on aquatic habitats. My research has identified new and exciting approaches that can help discern the impacts of environmental contaminants on wildlife, as well as the mechanisms underlying normal and abnormal tissue growth.

Sincerely,

Tamatha R. Barbeau

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2. [REDACTED]

3. [REDACTED]