Sonja Bareiss, PhD, PT, is an assistant professor in the Department of Physical Therapy. Dr. Bareiss completed her masters in physical therapy at Rockhurst University in Kansas City and practiced as a physical therapist for several years before returning to school. She completed her PhD in Anatomy and Cell Biology in the Brody School of Medicine at East Carolina University and then joined the College of Allied Health Sciences faculty in Department of Physical Therapy. She is the Director of the Neuroscience Lab and her research is focused on understanding the cellular mechanism involved in the development and recovery from chronic pain following central nervous system injury. Currently, Dr. Bareiss’ research is funded by a grant from the Neilson Foundation.

1. What do you like best about working at ECU?

I enjoy the collegial and collaborative atmosphere at ECU. The friendly environment at ECU, has allowed me to develop and foster collaboration within the department and throughout the university.

2. What do you find most exciting about your research and its potential?

By training I am both a physical therapist and a basic scientist. I spent 8 years in full time physical therapy practice specializing in treating patients with chronic pain. The lack of effective therapies to combat chronic pain lead me to pursue a degree in Anatomy and Cell biology. I now use the scientific tools from my PhD training to answer clinically relevant questions. Specifically, I am interested understanding how maladaptive responses of the nervous system contribute to the development of pain following injury. We are currently exploring new signaling mechanisms that contribute to the development of pain. The ultimate goal is to improve our understanding of how chronic pain develops and to discover new therapeutic targets. The potential of uncovering new therapies for those living with chronic pain is exciting!

3. What excites you about teaching?

I am fortunate in that I teach and do research in areas that I am passionate about. I teach fundamentals of neuroscience as well as an advanced course on chronic pain in our Doctorate of Physical Therapy program. It’s rewarding to see students apply their knowledge and skills to problem solve through complex clinical cases.

4. What do you hope students take away from their experiences from working with you on your research?
I hope students will take away an appreciation for the scientific process and the importance of research (basic and applied). Exposure to research helps to develop problem solving and critical thinking skills. Most students that train in my lab aspire to be health professions (as future physical therapists and physicians) or biomedical researchers. Research experiences gained in my lab help prepare them for their respective fields.

5. What is your favorite teaching or research moment?

Mentoring highly motivated graduate and undergraduate students through the research process represent some of my favorite research moments. I encourage all students in my lab to disseminate their findings at a professional meeting. The enthusiasm and pride students take in presentation of our research findings is a fulfilling part of being in an academic setting. And, of course, the positive news of funding!