

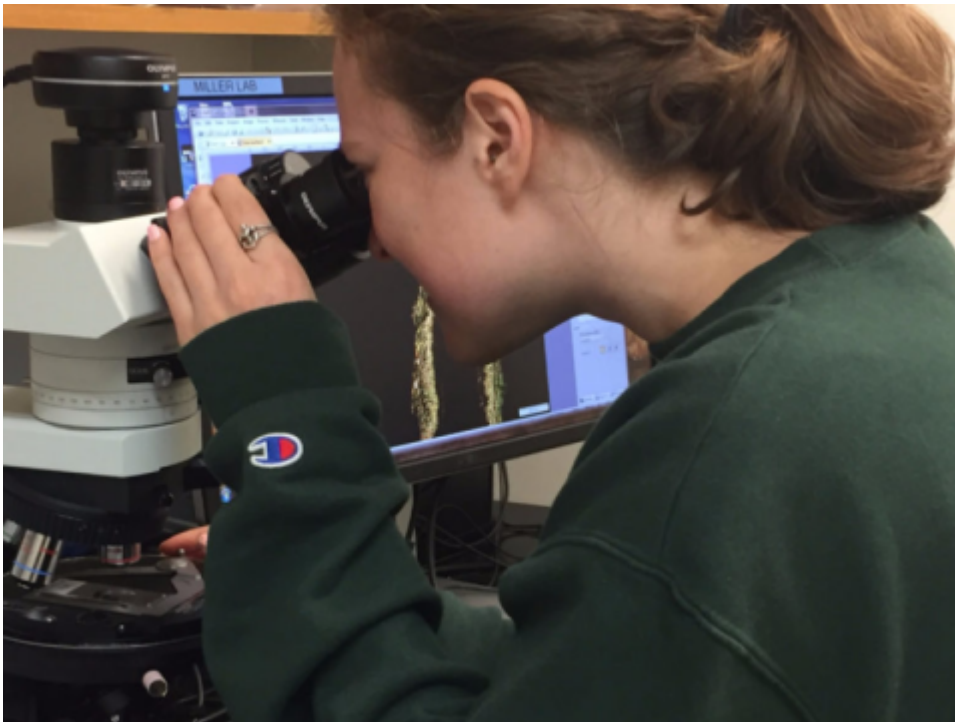
The Laboratory Experience

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newcomb@tulane.edu

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My summer internship experience is taking place in the Biomechanics of Growth and remodeling laboratory here at Tulane University. The laboratory's research focuses on predicting soft tissue remodeling in response to various biochemomechanical stimuli such as normal processes (e.g., aging and pregnancy), disease, and injury. The objective of the research taking place here is to find and quantify clinically significant patterns in soft tissues so that doctors may better treat common health issues such as pelvic organ prolapse (POP) and tendon injuries. The BG&R lab is unique in that much of its research focus is on women's reproductive health, an extremely understudied field.

My work here is focused on histology, particularly the quantification of collagen alignment in soft tissues. I have been spending my first two weeks taking and analyzing microscopic images of murine vaginal tissue in an attempt to quantify features of its extracellular matrix. The reason my project is focused on collagen alignment is that collagen is thought to be the primary load bearing constituent in soft tissues and therefore determines the strength of said tissues. It is generally agreed upon in the biomedical engineering field that changes in collagen alignment result in changes in the mechanical function of tissues, but the exact patterns in which this occurs are unknown. This is particularly relevant when you are talking about women's reproductive health. While collagen alignment can be complicated on any scale, it is unbelievably complicated in the female reproductive system. So complicated, in fact, that no one knows exactly what the collagen alignment should look like in the female reproductive system. This is a problem because based on what we know about the extracellular matrix of soft tissues, collagen alignment in the reproductive system is likely closely related to debilitating conditions such as POP and maternal related pelvic floor injuries. Pelvic organ prolapse alone affects approximately 30% of women and 30% of patients will require a second surgery to treat the condition. The work I am doing this summer is a small step towards a huge win in women's health. It is such a good feeling to know that I am apart of work that is helping support and better the lives of women when the topic is generally put on the back burner.

My feeling of excitement in working in a laboratory that focuses on women's health has only been heightened since my internship has begun. I have begun to forge relationships with the majority female team in the laboratory and they give me hope for my aspirations in a male dominated field. Although I have only been here for two weeks, I have learned so much in both a technical and personal sense. I have been exposed to many procedures and experiments and am learning the ins and outs of research etiquette. I expect that this summer will give me the skills that I need to continue research at a higher level and provide me with valuable connections for my future.

My advice to anyone out there looking for an internship is this: don't be afraid to go for something you want. I acquired this internship because I was interested in the work being done in the BG&R lab. I reached out to the principal investigator and conveyed that to her and after some discussion she found a place for me. Not everything will always work out and you will face some rejections, I definitely have, but, if you don't try you will never succeed. So, do your research, be prepared, and

reach out to organizations and eventually you will find the right fit for you.