



Engineering The Human Body

Trinity Schaefer, Civil Engineering, Fall 2022

Intellectual
Achievement
and Research

SUMMARY

My freshman year, I became a research assistant in a Biomedical Engineering Research Lab at UTSA studying Tissue Engineering. Our focus was skeletal muscle tissue, and the deterioration of such tissue in Type-2 Diabetic individuals. Our goal was to find treatments for the reduced function of the tissue under diabetic conditions. My personal goals were to contribute to the breakthroughs that resulted from our research, and to grow my understanding of medical innovation and its impact on society. Our successes each contributed to an increased quality of life for anyone suffering from Type-2 Diabetes. My responsibilities included gathering and organizing data, growing tissue samples, and I had the opportunity to present our research at the NSCC Research Conference.



SPICES

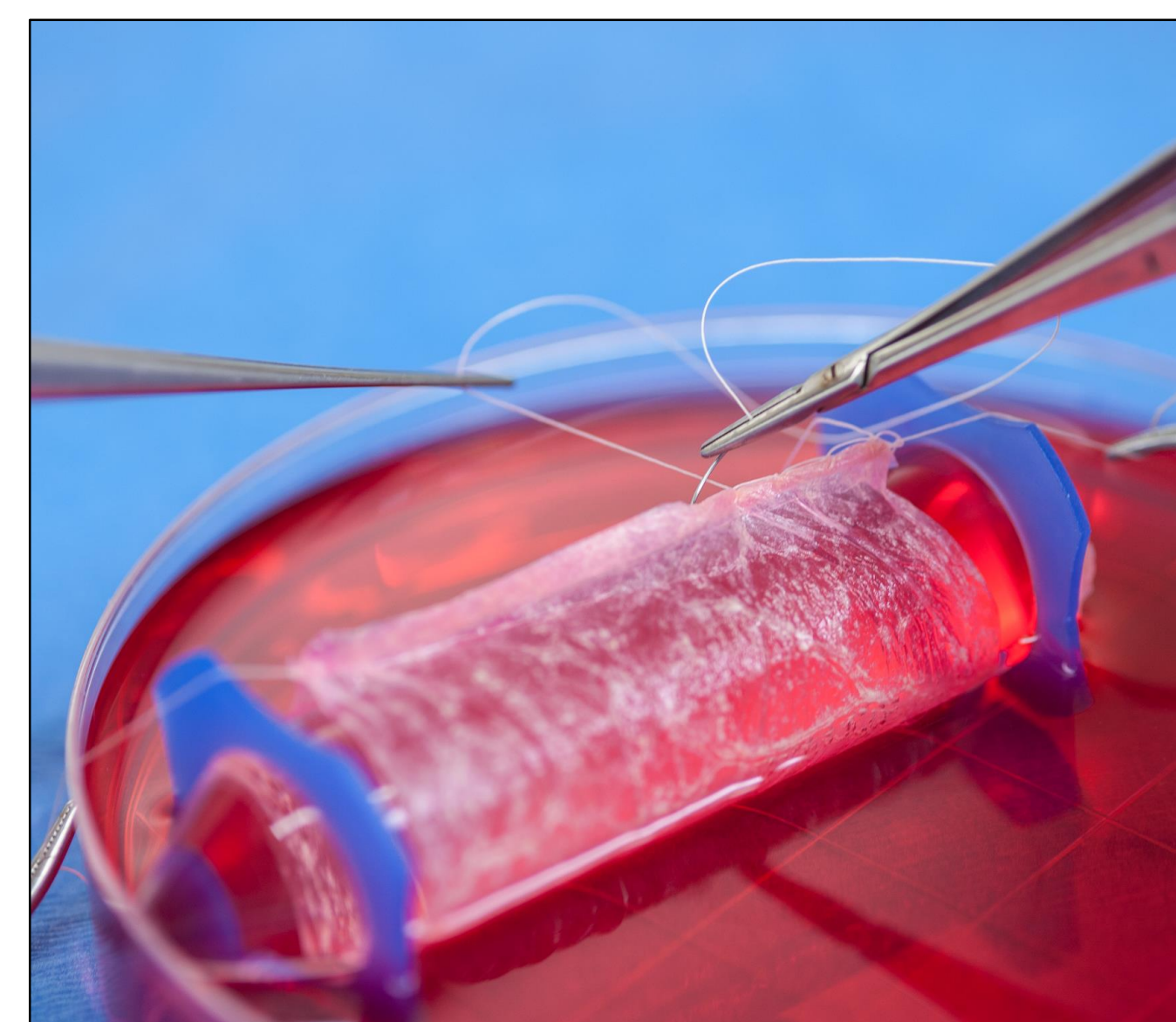
This research involvement satisfies the criteria of Intellectual Achievement and Research as it fostered my growth as a creative thinker and researcher, improving my ability to think critically about problems and synthesize solutions.

HERBS

The research is equitable and supportive because it is performed with the goal of improving the quality of life of victims of Type-2 Diabetes, reducing the extent to which their condition affects their ability to lead a fulfilling life.

LEARNING OUTCOMES

Ethical reasoning was practiced in our lab as we knew that our work contributed to a crucial problem in health: that those stricken by medical conditions are hindered in their lives by the effects of their condition. Communicating effectively was vital in ensuring that our research could be used for further research on the topic. Our intellectual dexterity grew throughout as we interpreted our data and synthesized information from our studies, allowing us to broaden our understanding of our topic and continue our research.



IMPACT

As a research assistant in the Agora Lab, I developed skills such as data analysis, critical thinking, and effective communication, but I value most the opportunity to dedicate my time to something that will truly change lives. I learned to value work that impacts my community, and to work hard in the pursuit of changing the world for the better. Medical research has the power to save lives and increase their quality. For Type-2 Diabetic patients, every success means a better life. The ability to treat skeletal muscle degeneration means less lethargy in patients, allowing them more time for what truly matters

ADVICE

To anyone considering research: Be patient. It is a slow, sometimes frustrating process, but the rewards will come, and your society will benefit from them. Be excited, be dedicated, and be proud of what you do!