In this project, I dissected a human forearm and hand and drew a set of colored diagrams in the style of traditional anatomical atlases. In the Anderson Hall Anatomy Lab, I removed a forearm from a cadaver by sawing through the radius and ulna bones with a hand saw. Throughout February and March 2017, I dissected the forearm and the hand using scalpels, forceps and scissors. After dissecting a layer of muscles, I would make a rough pencil sketch from observation and take reference photos with my phone camera. I would then label the muscles in the rough diagram, with help from Dr. Olson. After several sessions alternating between dissecting and sketching, I redrew my sketches on larger paper and made colored pencil final drafts labeled with pen.

When all the final drafts were ready, I scanned them and made pdfs of the drawings to make a poster, and put the original drawings in a portfolio. I then presented the poster with my drawings at the NIU Biology Department’s Phi Sigma Research Symposium, where I explained the functions of the muscles to fellow students and other attendees. I will present my work again next week at the Undergraduate Research and Artistry Day poster show, where I will have the opportunity to teach more people about how the hand and forearm work. Beyond that, I also intend to publish my work in the Human Anatomy and Physiology Society’s Educator Journal.

My objectives had been to teach myself more about the anatomy of the hand and to create a teaching tool that could be useful for others. I believe that I accomplished both of these goals, because I know much more about how the muscles of the hand and forearm work together, and can explain what I learned to others. This has helped me prepare myself for a future medical
career. I also successfully created a set of clear diagrams that can be understood by other students and viewers in general.

Initially, I had stated in my grant proposal that I would need to purchase a hand and various lab supplies. However, the Anderson Hall Anatomy Lab acquired another cadaver by the spring semester, so I used the cadaver’s hand instead of purchasing one. I also was able to find all the lab equipment I needed in the Anderson Hall Lab, so the only materials I purchased were a sketchbook and a portfolio with my own money. Although I ultimately returned the grant money to SEF, I am very grateful to have had this support. Thanks to the grant, I was able to focus on the project itself rather than on how to find money for materials. This extra resource from OSEEL provided me with the security and peace of mind that I needed in order to learn more effectively.