

Nicole Handa

Graduation Year: Senior

College: Science

Major(s): Biology and Psychology

Minors(s): None

Scholar Group Membership: Sorin Scholars

Did you received other funding for this project?: No

Could you have completed this project without CUSE funding? No

More details on CUSE funding assistance? I may have been able to apply for partial funding from other campus entities, but could not have funded the full experience without the help of CUSE.

Project Title: Poster Presentation - Interrogating the role that tbx2a/b play in mitigating the function of mecom in zebrafish pronephric development

Project Location: Conference at University of Michigan, Research completed at Notre Dame

ND Faculty Mentor: Dr. Rebecca Wingert

Project Type: Conference - Presentation

Why did you undertake this project/experience? Deepen your knowledge of a topic or issue, Research/experience necessary for senior thesis or capstone project, Prepare for professional school (MD, MBA, JD)

Did your funded experience help you:

[Deepen your understanding of your coursework or field of study]: Very Much

[Discern your interests and post-bac goals]: Yes

[Become confident in your ability to set and achieve your goals]: Very Much

[Gain a more nuanced view of local, national, or global communities]: Yes

[Improve your written and verbal communications skills]:Very Much

Tell us about your experience.

During the course of the three day conference, I attended many talks and keynote lectures along with a poster session. I presented my work at the poster session on the first night of the conference. During my presentation I met a post doc who had developed a protocol that I am now using to redo a portion of my project that I have not gotten to successfully work yet. Getting to talk with him about the protocol and gain insight based on the specifics of what went wrong in the experiment using a different protocol and how I might focus on troubleshooting that was invaluable. After meeting, he provided me with his contact information in the case that anyone in the research lab I work with here at Notre Dame has questions. I also had the opportunity to meet with a number of researchers studying kidney development in mice, which is the next level of complexity from the model system I am working in now. One of the research talks was actually focused on the genetic regulation of nephron tubule formation in the mouse which was of great interest to me because it is somewhat related to my project. Overall, I thought the conference

gave me the opportunity to recognize the connections between developmental processes across different tissues and the importance of presenting to an audience slightly outside of your field. Most of the productive suggestions for future experiments for my project as well as the projects that people gave talks on came from researchers who study a completely different organ and therefore had a different perspective on things. I am very grateful to have had all of the networking opportunities and the chance to share my work to the scientific community through this conference presentation that was funded by CUSE.

Describe the impact this project had, both on you as a student-scholar and on the people you worked with.

Attending the conference was a way for me to really take ownership of all the work I have put into research over the last year and get to show what I had accomplished. Designing the poster took thoughtful consideration of how to tell the story that my project has developed into and the value it might have to others in the field. At the conference, I had to be diligent about the explanations I provided of my work based on the familiarity that the other researchers (undergraduates, graduate students, post docs, and faculty) had with my model system and area of research. This helped me to hone my presentation skills and appreciate the big picture meaning of my research. It also provided me with the opportunity to work to support graduate students from my lab who were in attendance as well as gain an appreciation for the developmental biology community's current areas of focus.

Describe how this experience is connected to your plans as a student or future professional.

This experience was a means by which to present part of the work that will culminate into a senior thesis through the Honors Program in the Biological Sciences. It provided the opportunity for me to meet with researchers at various other institutions who are also studying developmental biology and help me to further discern what role I was research to have in my career as a physician as well as my medical school training.

What advice would you give other students who are planning to pursue similar projects?

I would tell other students who are planning to pursue similar projects to be confident and proud of all the work they have accomplished in order to get to the stage at which they are ready to present their own research. I would also urge them to take advantage of the opportunity at a conference to explore other areas out there that interest them and they may consider pursuing in the future.