

Poster 1:

Student Name: Sachi Irizawa

Student Major: Biological Sciences - Cell Biology and Genetics

Scholars Program: Science and Global Change

Title of Project: Optimizing Detection Methods for *Cyclospora*

The Specific Class (Code and number: for instance, CPSG230) Used for this Project (note: there is ALWAYS a course they use to get credit): CPSG359G

Briefly describe the nature of the project (activities done; goal of project; results; etc.)

Sachi researched different ways to detect *Cyclospora cayetanensis*, a parasite that causes gastrointestinal illness called cyclosporiasis. There were three main parts to the process, water filtration, DNA isolation and purification, and real-time qPCR.

What were the main benefits (intellectual, personal growth, etc.) the student received from doing the project?

The main benefits she experienced were being able to work in a lab setting and working with actual lab equipment. Being able to work with others that were also interested in this topic was also fun.

What were the main pitfalls or obstacles during the development and/or undertaking of the project?

Some of the resources that they used for the experiment may become unavailable in the future, creating results that may not be entirely accurate.

Some other question which ***YOU*** come up with which is relevant to the project being presented. This can be a different question for each person you interview or the same for two or all three. And actually ***ASK*** them the question, and write down the answer. (You wouldn't think we needed to put in that last sentence, but surprisingly this has been an issue in the past...)

What are you trying to gain from this experience to help better your career in the future?

Because Sachi wants to go into a career with lab work and doing research, this allowed her to further gain a sense of what it would actually be like.

Poster 2:

Student Name: Sumona Srinivasan

Student Major: Biological Sciences : Microbiology

Scholars Program: Science and Global Change

Title of Project: ZapE and *Pseudomonas aeruginosa* and CAUTI Development

The Specific Class (Code and number: for instance, CPSG230) Used for this Project (note: there is ALWAYS a course they use to get credit): CPSG359G

Briefly describe the nature of the project (activities done; goal of project; results; etc.)

They were studying the effects of *Pseudomonas aeruginosa* on the body and how to modify it to see if there were any changes in the formation of the biofilm. They were successful in being able to do this, they were able to confirm that their plasmid had the sgrRNA sequence and DNA sequencing.

What were the main benefits (intellectual, personal growth, etc.) the student received from doing the project?

Sumona was able to get more lab experience done and was able to work with the lab equipment in a lab setting.

What were the main pitfalls or obstacles during the development and/or undertaking of the project?

The commute to UMD because the internship was on UMD campus, so Sumona had to take the bus. Sometimes it would get delayed however.

Some other question which ***YOU*** come up with which is relevant to the project being presented. This can be a different question for each person you interview or the same for two or all three. And actually ***ASK*** them the question, and write down the answer. (You wouldn't think we needed to put in that last sentence, but surprisingly this has been an issue in the past...)

How was your experience working with the FIRE program?

It was an excellent internship experience that was slightly different than usual internships, but provided a lot of the same qualities.

Poster 3:

Student Name: John Hodgins

Student Major: Biological Science

Scholars Program: Science and Global Change Program

Title of Project: Environmental and Sustainability Education with UMD Extension's Baltimore County 4-H Program

The Specific Class (Code and number: for instance, CPSG230) Used for this Project (note: there is ALWAYS a course they use to get credit): CPSG359

Briefly describe the nature of the project (activities done; goal of project; results; etc.)

Being able to spread sustainability and environmental initiatives into the public by creating curriculums for the youth. These activities involved instructional lessons, informing parents, and interactive lessons and activities for the kids.

What were the main benefits (intellectual, personal growth, etc.) the student received from doing the project?

John was able to gain some more public speaking skills and hands on experience with being able to talk to a community about his work.

What were the main pitfalls or obstacles during the development and/or undertaking of the project?

Having to speak to so many people at the beginning was a little tough only because he was not a very extroverted person at first.

Some other question which ***YOU*** come up with which is relevant to the project being presented. This can be a different question for each person you interview or the same for two or all three. And actually ***ASK*** them the question, and write down the answer. (You wouldn't think we needed to put in that last sentence, but surprisingly this has been an issue in the past...)

What were some of the most important things you'll take away from this experience?

Some of the most important things that he'll take away from this is learning about how much food waste is present in agricultural sustainability. Also, just knowing and understanding how little people know about sustainability is also important as well.

Poster 4:

Student Name: Hahnbit Kang

Student Major: Microbiology

Scholars Program: Life Sciences

Title of Project: Research at Molinari Lab

The Specific Class (Code and number: for instance, CPSG230) Used for this Project (note: there is ALWAYS a course they use to get credit):

Briefly describe the nature of the project (activities done; goal of project; results; etc.)

The goal of Hahnbit's project was to combine synthetic biology and material science to explore certain characteristics of bacteria, in order to create engineered living materials.

What were the main benefits (intellectual, personal growth, etc.) the student received from doing the project?

Hahnbit was able to learn how to use online programs like Benchling to design plasmids and primers.

What were the main pitfalls or obstacles during the development and/or undertaking of the project?

Having the color on the protein not being able to show up on the petri dish.

Some other question which ***YOU*** come up with which is relevant to the project being presented. This can be a different question for each person you interview or the same for two or all three. And actually ***ASK*** them the question, and write down the answer. (You wouldn't think we needed to put in that last sentence, but surprisingly this has been an issue in the past...)

Can you explain a little bit about the diagram on your poster?

She explained that the red protein was the one that she had actually inserted into the process, specifically called mScarlet fluorescent protein.

Poster 5:

Student Name: Mira Palakodety

Student Major: Biochemistry

Scholars Program: Discovery and Life Science

Title of Project: Medical Assisting: A Dive into Internal Medicine

The Specific Class (Code and number: for instance, CPSG230) Used for this Project (note: there is ALWAYS a course they use to get credit):

Briefly describe the nature of the project (activities done; goal of project; results; etc.)

Mira conducted pre-appointment examinations for patients in-person or on telehealth to gather information for the doctor. Additionally, she was able to gain some training in taking vitals and performing basic clinical procedures. Lastly, she worked with coding an algorithm on the ICMed database to provide templates for information charts for the doctors to input.

What were the main benefits (intellectual, personal growth, etc.) the student received from doing the project?

She was able to experience firsthand how to handle patients and used the programs to input the patient's condition. Also, Mira was able to learn more about effective communication with patients.

What were the main pitfalls or obstacles during the development and/or undertaking of the project?

Mira had to learn how to Python, which was completely new to her.

Some other question which ***YOU*** come up with which is relevant to the project being presented. This can be a different question for each person you interview or the same for two or all three. And actually ***ASK*** them the question, and write down the answer. (You wouldn't think we needed to put in that last sentence, but surprisingly this has been an issue in the past...)

What was your favorite part about the internship?

Her favorite part of the internship was being able to meet patients and actually being able get the experience of being in the position of helping someone feel better.