

# Thomas Quello

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## **Education**

### **Florida Atlantic University – Harbor Branch Oceanographic Institute, Fort Pierce, FL, USA**

M.S. Biology Thesis Track (Anticipated Graduation June 2027)

### **St. Olaf College – Northfield, MN, USA**

B.A. in Biology with Concentration in Environmental Studies (May 2024)

Summa Cum Laude

3.91/4.00 GPA

### **Otago University – Dunedin, Otago, New Zealand**

Semester abroad fall 2024

## **Honors and Awards**

Dean's List (Fall 2020–Spring 2024)

Dean's Scholarship recipient of \$21,000 per year renewed based on sustained academic achievement

Chi Alpha Sigma – Student-athlete honor society

NCAA Division III Men's Baseball Team (2020-2023)

## **Research Experience**

**Research Diving Intern**, Indo Ocean Project, Raja Ampat, Indonesia, September 2024–November 2024

- Conducted roving diver surveys, benthic surveys, and deployed baited remote underwater video to monitor ecosystem health in a remote marine protected area.
- Assisted research team with data entry and equipment maintenance.

**Independent Research**, Environmental Studies Department, St. Olaf College, Northfield, MN, Spring 2024,

*Advisor Dr. Anne M Gothmann*

- Reviewed primary literature on the effects of eutrophication on coral reefs to write a synthesis paper summarizing results.
- Provided husbandry for tropical corals through monitoring of nutrient levels and tank conditions.

**Independent Research**, The Gerace Research Center, San Salvador, Bahamas, January 2023

*Advisor Dr. Steven Freedberg*

- Developed and implemented a research project on feeding and aggression in a coral reef fish (*Thalassoma bifasciatum*).
- Collected data in the field by observing fish behavior at different periods of the day.

- Synthesized results from the study into a poster which was presented to other students and faculty in the research center.

**Independent Research**, Biology Department, St. Olaf College, Northfield, MN, Fall 2022,

*Advisor Dr. Jean Porterfield*

- Continued lipid droplet protein research from Summer 2022.
- Used fluorescence microscopy of endogenously tagged cells to determine the localization of target lipid droplet protein.
- Constructed and presented a poster at the Spring 2023 Midwest Protozoology Conference

**Collaborative Undergraduate Research and Inquiry (CURI)**, St. Olaf College, Northfield, MN, Summer 2022

*Advisor Dr. Jean Porterfield*

- Researched the function and localization of a lipid droplet protein in *Tetrahymena thermophila*.
- Genetically engineered plasmid vectors for knockout and endogenous tagging of the protein's gene.
- Designed and presented a poster at the CURI Final Symposium.

## **Presentations**

**Midwest Protozoology Society Conference**, Knox College, Galesburg, Illinois. April 2023,  
“Investigating LDP1, a Lipid Droplet Protein in *Tetrahymena thermophila*”

**St. Olaf Sustainability Committee**, St. Olaf College, Northfield, MN, December 2022  
“Path to Carbon Neutrality for St. Olaf by 2050”

**Midstates Consortium for Math and Science**, University of Chicago, Chicago, Illinois, November 2022,  
“Genetically Engineering *Tetrahymena thermophila* DNA to Understand the Structure and Function of Lipid Droplets”

**CURI Final Symposium**, St. Olaf College, Northfield, MN, August 2022,  
“Investigating LDP1, a Lipid Droplet Protein in *Tetrahymena thermophila*”

## **Technical Skills and Certifications**

- Diving: PADI Advanced Open Water, PADI Nitrox, PADI Rescue, Divemaster (in progress), First Aid, CPR, AED, Oxygen Provider, Red Cross Lifeguard
- Computer: Proteomics, R, Excel, MEGA
- Laboratory: RT-qPCR, PCR, cell culture, gel electrophoresis, growth curve analysis, plasmid vector cloning, coral and fish husbandry, water parameter testing
- Fieldwork: Small boat operation, trailer driving, data collection, roving diver surveys, benthic survey, BRUV deployment and retrieval

## **Work, Volunteer, and Leadership Experience**

### **Marine Science Educator**, Pigeon Key, Marathon, FL, January 2025-Present

- Leads educational lectures for groups of students to learn about the marine ecosystems of the Florida Keys.
- Facilitates hands-on learning experiences through snorkeling, tide pooling, kayaking, and dissections.
- Responsible for the safety and well-being of students while learning in the field

### **Aquatic Restoration Team Leader**, Premier Lake Harvesting, Golden Valley, MN, May 2024-September 2024

- Led a team of 3-12 divers to effectively remove invasive aquatic species from lakes using SCUBA.

### **Volunteer Diver**, Great Lakes Aquarium, Duluth, MN, April 2024-Present

- Hand-feed sturgeon and clean tank exhibits using SCUBA.
- Interact with the audience of a live educational show about the fish in the tank.

### **Aquarium Technician**, St. Olaf College, Northfield, MN, January 2024-May 2024

- Maintained a 210-gallon marine aquarium containing fish and soft corals
- Monitored water chemistry and adjusted water conditions

### **Organic Chemistry and Biology Tutor**, St. Olaf College, Northfield, MN, Fall 2022-Spring 2024

- Prepared organic chemistry and biology students for success with their exams and assignments through 30-minute individual tutoring sessions.

### **SOAR Peer Leader**, St. Olaf College, Northfield, MN, Fall 2022-Spring 2023

- Worked in the St. Olaf Orientation to Academic Resources (SOAR) program.
- Led bi-weekly informational sessions for first-year students to help them transition to college.

### **St. Olaf Carbon Neutral Team**, St. Olaf College, Northfield, MN, Fall 2022

- Worked with other students to develop a plan for St. Olaf to achieve carbon neutrality by 2050.
- Gathered data on current carbon emission data for scopes I, II, and III.
- Researched ways to mitigate the current emissions by 2050 and presented the findings to the St. Olaf Sustainability Committee.