# **Mary Mahoney**

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#### Education

May 2019 **B.A. Physics,** 

Binghamton University, Binghamton, NY

Physics Department

May 2019 **B.A. Chemistry** Chemistry Department

Binghamton University, Binghamton, NY

# **Research Experience**

2017- Now **Binghamton University, School of Pharmacy** 

Principle Investigator: Dr. Anthony Di Pasqua Student Researcher, Binghamton University

My responsibility as undergraduate of member of Dr. Di Pasqua's research group involved gaining proficiently in a dosimetry software, VARSKIN5, which I used to dose SCC-25 (squamous carcinoma cells) with a therapeutic relevant dose from <sup>166</sup>Hol MSNs (mesoporous silica nanoparticles).

2015-2016 Freshman Research Immersion, Biomedical Chemistry

Advisor: Dr. Susan Flynn

Student Researcher, Binghamton University

My responsibility as an invited student into the FRI was to work within in a team which conducted a range of biomedical chemistry laboratory research experiments, which were all closely monitored by my research advisor. Over this sequence of 3 semester course-based research program, my teams and I investigated a wide range of topics: from glutamate transporters to oxidative stress. During this extensive program, my laboratory skill set now encompasses basic microbiological techniques (including bacterial transformation and bacteria culture), fluorescent microscopy, fluorescent plate reader, pipette technique, preparing dilutions, preparing mutations with site directed mutagenesis, and mammalian cell culture. This program also expanded my scientific skill set of public speaking, scientific writing (including proposal and poster writing), Microsoft excel, and scientific poster and oral presentation.

#### **Teaching Experience**

Aug 2016- **Peer Mentor,** Biology, Binghamton University

Dec 2016 My responsibility as a peer mentor primarily includes aiding a team of 6 peers in their research project in the FRI program. In addition, I receive leadership and mentorship training as part of my teaching experience.

Dr. Megan Fegley, FRI Program Coordinator

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Jan 2016- **Peer Mentor,** Anthropology, Binghamton University

May 2017 My responsibility as a peer mentor primarily includes aiding a team of 5 peers

in their independent research project in the FRI program. In addition, I also graded assignments and provided feedback on student reports and draft posters.

Dr. Michel Shamoon-Pour, FRI Program Coordinator Binghamton University, Michel Shamoon-Pour

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Email: mshamoo1@binghamton.edu

**Awards** 

2015-2016 Dean's List, Binghamton University

Fall 2015, Spring 2016, Fall 2016 inclusive. Awarded to students with 3.50+ semester GPA.

Certifications

2015-2017 Lifeguarding with Waterfront Skills, American Red Cross

Awarded by completion of the American Red Cross's lecture and practicum

course of lifeguarding.

Kingston, NY

2016-2018 Basic Life Support, American Heart Association

Awarded by completion of the American Heart Association's course of basic life

support that included adult and pediatric CPR and AED training.

LaGrangeville, NY

**Presentations** 

*Poster* "Investigating Treatment Options of Type 2 Diabetes"

Authors: Alfred A Malomo Jr., Alexis Knisel, Cindy Ng, and Mary Mahoney

Binghamton University (2015), Binghamton, NY

*Poster* "Investigating the Antioxidant Properties Acetylsalicylic acid in A549 Cells

Stressed by Colchicine Application"

Authors: Rebecca Roffe, Táchira Pichardo, and Mary Mahoney

Binghamton University (2016), Binghamton, NY

**Employment History** 

Sept 2014- Party City, Sales Associate

Nov 2014 Responsibilities included cleaning aisles, stocking, aiding customers on the

sales floor.

Kingston, NY

June 2015- Callabar Swim and Tennis, Lifeguard

August 2015 Responsibilities included rescue and administrating CPR if needed, cleaning,

child care, and supervising swimmers.

Kingston, NY

Feb 2016 Broome County Board of Elections, Poll Inspector

Responsibilities includes signing voters into the poll station, handing out

ballots, and assisting voters with voting machines.

Binghamton, NY

Jan 2017 Binghamton University School of Pharmacy, Standardized Patient

Responsibilities include memorizing a script, acting out the symptoms of the

patient, providing feedback to the pharmacy student.

Bighamton, NY

## Leadership

2015-Now Cofounder, Secretary of Chess Club

Responsibilities include recording attendance, planning events, and attending

weekly meetings.

Binghamton University, Binghamton, NY

2017-Now President, CoRE (Computer, Robotics, and Engineering) live and learn

Responsibilities include running a weekly meeting, running E-board meetings, planning and coordinating CoRE events, resolving conflicts, serving as the

CoRE representative at Dickinson Community meetings.

Binghamton University, Binghamton NY

2016-2017 Historian, CoRE (Computers, Robotics, and Engineering) live and learn

Responsibilities include documenting or photographing CoRE history,

attending events, attending weekly group and Eboard meetings.

Binghamton University, Binghamton, NY

2017-Now Mentor, Biochemistry Club

Responsibilities include being a mentor to an underclassmen fellow STEM major to whom I provide advice on classes, getting into a research lab, and

degree and career pathways.

Binghamton University, Binghamton, NY

## **Extracurricular Activities**

2015-Now Member, Biochemistry Club

2015-Now President, CoRE

2015-Now Member, Pre Med Association

2016-Now Secretary, Chess Club

2016-Now Member, Gymnastics Club Sport

2017-Now Member, Pre-SOMA

#### **Volunteering**

October 2014 O+ Festival, Volunteer

O+ festival is a country wide weekend long festival run by volunteers where underserved artisan members of the community receive free healthcare in

exchange for art and music.

Responsibilities included manning the merchandise table, selling products, and

handling money. Kingston, NY

Jan 2015- Fairly New Thrift Shop, Volunteer

June 2015 Responsibilities included maintaining appearance of shop, pricing items,

helping customers, and stocking donations.

Kingston, NY

Fall 2015; Physics Outreach Program (POP), Volunteer

Fall 2017 POP is a volunteer program run through Binghamton University that presents

science demonstrations in community elementary schools to spark interest in

STEM.

Responsibilities included operating and presenting the demonstrations to the

children.

Binghamton, NY

#### References

Chemistry Department

Dr. Susan Binghamton University Flynn 4440 Vestal Parkway East

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Email: sflynn@binghamton.edu

Dr. Anthony Di Pasqua Pharmacy Department Binghamton University

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