**Micayla L. George**

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**Education**

**Pomona College**, Claremont, CA August 2016-May 2020

* Molecular Biology Major
* Cumulative GPA: 3.83

**University College London**, London, England August 2018-December 2018

* Pomona College Molecular Biology Study Abroad Program

**University City High School,** San Diego, CA September 2012-June 2016

* Graduated with honors

**Related Experience**

**Research Technician,** *Ragon Institute of MGH, MIT and Harvard* August 2020-present

**Laboratory and related work:**

* Cell/tissue processing, culture and maintenance
  + Immunological Assays (e.g. antibody staining, flow cytometry)
  + RNA-seq library preparation and Next Generation Sequencing (NGS)
  + Elementary analysis of RNA-Seq data using R
  + Supply and reagent ordering
  + Maintaining and organizing lab space
* **Communication and Documentation:**
* Maintain regular communication between the Shalek, Walker, and affiliate labs in Durban, South Africa
* Regular organization and updates of documentation associated with sample processing and analysis
* Preparation of presentation materials for internal and external meetings
* Coordinate shipping for relevant projects

**Summer Undergraduate Research Assistant**, *Pomona College Chemistry Department*June 2019-August 2019

* Worked with Professor Jane M. Liu, Professor of Chemistry at Pomona College
* Studied the regulation of gene expression in *Vibrio cholerae*
  + - Used LacZ assays and Western Blots to measure expression of specific genes
    - Used transformation and conjugation to generate new strains of *V. cholerae* relevant for probing effects of specific genes on regulation of gene expression
    - Used Licor Image Studio Software and Prism to quantify and analyze data
* Presented at lab meetings, discussed experimental design, read and discussed relevant scientific literature, maintained lab notebook, helped maintain lab (making buffers/reagents/agarose plates, keeping a clean work space, autoclaving glassware and waste, etc.)
* This research is ongoing and will culminate to become my senior thesis for the Pomona College Molecular Biology Major

**Research Assistant,** *University College London Structural and Molecular Biology Department* October 2018-December 2018

* Worked with Anais Cassaignau, research associate in the Christodoulou Lab at University College London
* Studied co-translational folding of nascent polypeptide chains
  + - Used site-directed PCR mutagenesis to create desired mutants of protein of interest for downstream analysis of protein folding patterns
    - Used assays to determine presence / absence of disulfide bonds in mutated protein of interest

**Research Assistant,** *University of California San Diego Medical School* June 2018 - August 2018

* Worked with Meilin Wu, postdoc in the Joiner Lab at UCSD Medical School
* Studied structure-function relationship of protein domain known to regulate Shaker K and nACHR neuron receptors
  + - Maintained HEKtsa cell cultures
    - Utilized FRET-based assay to quantitatively measure protein-protein interactions
* Read and discussed scientific papers, maintained lab notebook

**Summer Undergraduate Research Assistant**, *Pomona College Biology Department*June 2017-August 2017

* Worked with Erin Su, undergraduate student in the Crane Lab at Pomona College
* Studied sulfur metabolism pathways in microbial communities from the Salton Sea
  + - Maintained cultures of microbes from the Salton Sea in both aerobic and anaerobic conditions
    - Probed potential sulfur metabolism pathways using KEGG genome database and analyzed metagenomics using MEGAN software
* Mini-prepped large quantities of soil samples to help with a separate project on the genetic comparison of microbial communities in locations across the Southern California region between seasons
* Read relevant scientific papers, maintained lab notebook, collaborated with lab members to direct project

**Additional Experience**

**Biology Mentor**, *Pomona College Biology Department*  Fall 2017, Spring 2019, Spring 2020

* Mentored students taking courses in Genetics and Cell Biology at Pomona College
* Held weekly mentor sessions outside of class to assist students with understanding concepts and completing problem sets
* Attended weekly classes to gain better understanding of material as well as help facilitate in class problem solving and group discussion activities

**Music Librarian/Head Music Librarian**, *Pomona College Music Department* September 2017-May 2020

(Promoted to head librarian September 2019)

* Assisted students and faculty with access to music library resources, practice rooms, and music studios
* As head music librarian:
  + Oversaw student librarians, ensured accountability with work responsibilities
  + Hired and trained new librarians, organized student librarians into work shifts
  + Developed a new online system for checking out materials from the library

**Sponsor**, *Pomona College Residential Housing Services* August 2017-May 2018

* As a sophomore, lived in a residence hall designated for first-year residents to serve as a support network for first-year students
* Helped plan events to build a positive and inclusive community for all students
* Served as a mentor for individual students during transition to college life

**Social Media Contributor**, *Pomona College Communications Office* September 2016-September 2017

* Helped create and brainstorm relevant content for Pomona College social media to better engage students on various social media platforms

**Conferences**

**Chemical Biology Conference,** *University of Southern California* July 2019

* Attended conference during time as summer undergraduate research assistant in the Liu Lab

**Undergraduate Research Conference,** *University of San Diego* April 2019

* Presented research at poster conference done on DNA double strand break repair done in the Negritto Lab as a part of the Pomona College Molecular Biology Laboratory course

**Related Course Work**

***Pomona College***

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| --- | --- | --- |
| Introductory Genetics w/lab | Introduction to Computer Science w/lab | Introduction to Biostatistics |
| General Chemistry w/lab (2 semesters) | Organic Chemistry w/lab (2 semesters) | Molecular Biology Laboratory |
| Science and the Public’s Health | Calculus III with Applications to the Life Sciences | Advanced Cell Biology w/lab |
| Introduction to Cell Biology w/lab | Analysis of Scientific Literature | Molecular Biology Experimental Thesis |
| General Physics w/lab (Mechanics) | Chemical Biology | Physical Chemistry for Molecular Biologists |
| General Physics w/lab (Electricity and Magnetism) |  |  |

***University College London***

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| --- | --- | --- |
| Biomolecular Structure and Function (Biochemistry) | Structural and Molecular Biology (Research course) | Infection |
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**Additional Course Work**

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| --- | --- | --- | --- | --- |
| Basic Acting | Problems of Philosophy | Elementary/Intermediate Chinese  (3 semesters) | The Social Brain (Psychology) | |
| Anthropology of Food | London Architecture (University College London) |  | |

**Co-curricular Activities**

**Pomona College Orchestra,** Bassist September 2016-May 2020

**Claremont Christian Fellowship,** Member/Leader September 2016–May 2020

**Awards and Honors**

**Pomona College Scholar,** ranked in the top 25% of the class

**SKILLS**

Proficiency in Python, R, Prism, Google Drive, MS Office

Proficiency in Mandarin Chinese