# Marissa Borrego

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Education Reed College | Bachelor of Arts, Neuroscience

Portland, OR | Expected Graduation May 2019

GPA - 3.34 (3.70 within major)

**Thesis**: The Effect of Maternal Separation on the Stress Response of *A. burtoni* 

August 2018 - May 2019 | Dr. Susan C. P. Renn

Research Experience

GHSr Regulation Following Ethanol Withdrawal in Female Rats

January 2018- May 2018

Dr. Paul J. Currie, Reed College

The Role of TMEM-2 in Remyelination Failure

June 2017 - August 2017

Dr. Lawrence Sherman, Oregon Health and Science University

The Effect of Ethanol on Hyaluronic Acid in Neural Stem Cells

June 2018 - August 2018

Dr. Lawrence Sherman, Oregon Health and Science University

Awards and Fellowships

Social Justice Research and Education Award

Reed College, 2018

· Funding granted to incorporate social justice pedagogy into the curriculum of Reed College's Science Outreach program

Commendation for Excellence in Scholarship

Reed College, 2018

· An award given by faculty to students that earned a GPA above 3.5 during the school year.

#### Provost Scholar Fellowship

Oregon National Primate Research Center, 2017

· Awarded to undergraduate students with identities historically underrepresented in STEM to pursue research with a mentor of their choice

# Workshops & Presentations

## Defining Social Justice and Unpacking Privilege

September 15, 2018 | Reed College

· Designed and implemented a workshop for employees of Reed College Science Outreach

### The Role of TMEM-2 in Remyelination Failure

August 16, 2017 | Oregon National Primate Research Center

· Presented the data from a summer research program at the Oregon National Primate Research Center

# Laboratory Skills

#### Behavioral Neuroscience Protocols in Rats

- · Stereotaxic Surgery
- · Pap Smears and Estrous Determination
- · Intraperitoneal Injections, Intramuscular Injections, and CNS Microinjections
- · Brain Extraction and Dissection
- · Shaping, Conditioning, and Extinction of Behaviors
- · Conditioned Place Preference and Novel Object Paradigms
- · Electrophysiology

### Cellular Biology Protocols

- · Immunocytochemistry and Fluorescence Microscopy
- Western Blot Analysis
- · Culturing Mammalian Neurospheres and Oligodendrocyte Precursor Cells

#### **Genetics Protocols**

- · RNA Isolation from Tissue and Cell Cultures
- · Reverse Transcription of RNA
- · Primer Optimization, Gel Electrophoresis, and PCR
- Preparation and Analysis of Quantitative PCR

#### Computer Science

- · Proficiency of Programming in Python and C++
- · Familiarity of Programming in MIPS and R
- · Typesetting Using LATEX
- Mathematical Analysis Using Mathematica and Stata

#### Scientific Communication

- · Writing Grant Proposals
- · Writing Critiques of Research Articles
- · Oral and Poster Presentation of Data
- · Leading Conference Discussions

Relevant

BIOL 363 Genes, Genetics, & Genomes: A

Coursework

BIOL 372 Cellular Biology: B

BIOL 381 Neurobiology & Physiology: B BIOL 431 Integrative Neuroethology: A

BIOL 431 Cell & Dev Biology of Neural Progenitor Cells (In Progress)

CHEM 392 Metabolic Biochemistry: B CSCI 221 Computer Science II (In Progress) PSY 333 Behavioral Neuroscience: A

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PSY 348 Research Design & Data Analysis: A

PSY 373 Learning: A-

PSY 433 Behavioral Neuroscience Research: A-

PSY 434 Neuropharmacology: A

PSY 481 Epigenetics & Neuroscience: A

# Teaching Experience

#### Science Outreach Intern

Reed College | Portland, OR | August 2017 - Present

- · Improved curriculum by testing and organizing lessons
- · Designed inclusive curriculum for elementary school science classes
- · Trained undergraduate students how to teach in culturally relevant ways
- · Taught science curriculum weekly in local elementary schools

### Neuroscience Tutor and Teaching Assistant

Reed College | Portland, OR | August 2016 - Present

- · Supervised the laboratory sections of a behavioral neuroscience class
- · Demonstrated laboratory protocols as an example for students
- · Provided tutoring for undergraduate students in biology and psychology