

Cody W. Carter  
codywcarter@gmail.com  
(609)-401-8263

## EDUCATION

### **Masters of Liberal Arts, Bioinformatics**

Harvard Extension School, Cambridge, MA

Anticipated Graduation Date: May 2021

### **Bachelor of Science, Neuroscience, Biomolecular Science**

University of Michigan, Ann Arbor, MI

Graduation Date: May 2015

## EMPLOYMENT

### **Technical Associate 2 in the Graybiel Lab, McGovern Brain Institute**

*Primary Investigator:* Ann Graybiel, PhD

July 2018 – Present

The long term goal of the Graybiel Lab is to gain an understanding of basal ganglia circuits sufficiently to provide clear potential avenues for therapeutic intervention in neurologic and neuropsychiatric disorders.

#### Duties:

- Supervision of undergraduate research assistants, including onboarding, training in specialized techniques, ongoing oversight, and evaluation of skillset
- Creation, implementation, and troubleshooting of lab cell biology arm protocols including tasks involved in CRISPR cloning
- Oversight of research compliance in collaboration with Division of Comparative Medicine and Environmental Health and Safety
- Secondary Lab Safety Officer
- Oversight and management of financial expenditures for multiple grants
- Contribute to grant budget development and preparation for submission
- Continuation of duties under Technical Associate 1 position with increased managerial duties and enhanced scientific contribution to research methodology, research planning and implementation

### **Technical Associate 1 in the Graybiel Lab, McGovern Brain Institute**

*Primary Investigator:* Ann Graybiel, PhD

June 2016 – June 2018

#### Duties:

- Training rats and mice in an extensive variety of behavioral tasks outlined below in combination with photometry, DREADDS, optogenetics, electrophysiology, and/or voltammetry
- Management and tracking of multiple separate breeding colonies and performing time sensitive tamoxifen dosing
- Fabrication, wiring, testing, and maintenance of Arduino based behavioral apparatus including an assortment of stimuli for use in a variety of mouse behavioral paradigms
- Managing supply inventory, space allocation, and colony requests for individual projects and compliance inspection

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- Facilitate recruitment and hiring process
- Participating in the design of ongoing experimental plans and strategies, including maintenance of protocol records
- Assisting in preparation of grant proposals, progress reports, and project presentations
- Continuation of duties under Technical Assistant position.

**Technical Assistant in the Graybiel Lab, McGovern Brain Institute**

**Primary Investigator:** Ann Graybiel, PhD

August 2015 – June 2016

Duties:

- Training rats and mice in an extensive variety of behavioral tasks outlined below in combination with optogenetics, electrophysiology, and voltammetry
- Fabrication of multiple types of probes and electrodes for use in acute voltammetry, chronic voltammetry, and electrophysiology
- Performing stereotaxic surgeries to implant various headstages, fibers, or other recording devices and intra-cerebrally injecting viruses into target brain regions
- Designing new behavioral tasks and designing/building necessary equipment
- Training researchers and undergraduates to perform all listed laboratory techniques and procedures
- Continuation of duties under Project Assistant position.

**Project Assistant in the Graybiel Lab, McGovern Brain Institute**

**Primary Investigator:** Ann Graybiel, PhD

May 2015 – August 2015

Duties:

- Performing voltammetry recordings in rats and mice
- Fabrication of multiple types of electrodes used in voltammetry
- Assisting in running mice and rats through various behavioral tasks (e.g. T/L-maze).

**Research Assistant in the Aragona and Robinson Labs, Biopsychology Department:**

**Primary Investigator:** Terry Robinson, PhD; Brandon Aragona, PhD

May 2014 – May 2015

The long term goal of the Aragona and Robison Labs is to research individual differences in the propensity to attribute incentive motivational properties to cues associated with rewards, and the relationship to addiction.

Duties:

- Performed voltammetry recordings in awake-behaving rats during Pavlovian conditioning
- Analyzed voltammetry data, histology, and video recordings of rats and prairie voles
- Trained undergraduate students to perform a variety of laboratory tasks

**University of Michigan Housing, Dining Services Coordinator:**

Jan 2013 – May 2015

Duties:

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- Managed up to 50 workers in a fast paced and constantly changing environment serving up to 1400 people per hour
- Responsible for opening/closing the dining hall, including financial record keeping
- Ensured all stations were serving food, worked with the professional staff to fix any problems that arose
- Acted as a liaison between managers and student staff.

### **Research Assistant in the Iwase Lab, Department of Human Genetics:**

**Primary Investigator:** Shigeki Iwase, PhD

April 2013 – December 2013

The long term goal of the Iwase Lab is to understand how the dynamic regulation of chromatin, the DNA-containing macromolecule, engages in brain development and function.

#### Duties:

- Maintained, transfected, harvested, and electroporated cell culture lines and bacteria colonies
- Maintained stock solutions of necessary chemicals
- Performed wide range of molecular biology techniques

### RELEVANT COURSEWORK AND SKILLS

#### *Coursework*

Taken courses with a focus in neuroscience, chemistry, psychopharmacology, biology, statistics, computer science, and research methods.

#### *Skills*

Physiological Recording: Trained to perform in vivo voltammetry in rats; analysis of voltammetry data; fabricate acute and chronic voltammetry probes and electrophysiology electrodes; stereotax surgery for implantations (optogenetics, voltammetry, photometry, and electrophysiology) and/or virus injection; rat, mouse, and vole handling, training, and injections; and maintenance and ordering of laboratory supplies and animals.

Software: Working knowledge of Python, MATLAB, C, SPSS, Arduino, HTML, SQL, BioPython, Prism, and Microsoft Office.

Molecular Biology: Trained in cell culture, lentiviral transfection, cloning, PCR, western blot, polyacrylamide gel electrophoresis, and maintenance of stock solutions.

Behavioral Training: Experience with animals in following behavior tasks: approach/avoid paradigms, go/no-go lever pressing, cue discrimination/reversal, T-maze, L-maze, social interaction, and digging/marble burying.