

## Timothy Justin Libecap (T.J.)

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### EDUCATION:

**University of Kentucky**, MD/PhD candidate, M2, College of Medicine  
**Emory University**, *College of Arts and Sciences*, Atlanta, Georgia  
Major: Neuroscience and Behavioral Biology

June 2018-Present  
May 2016  
Highest Honors

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### Research Experience:

*Summer Rotation Student in Dr. Brian Gold's Cognitive Neuroscience Lab*

May 2019-Present

- Researching the functional and anatomical correlates of healthy brain aging among a cohort of 100+ adults from the Sanders Brown Center on Aging Alzheimer's Disease Cohort
- Learning techniques including Diffusion Tensor Imaging, Cerebroventricular Reactivity, and Probabilistic Tractography to elucidate the role of cerebrovascular degradation on brain aging

*Summer Rotation Student at the Center for Drug and Alcohol Research*

May 2018-August 2018

- Studied the use of cognitive behavioral therapy on outcomes of patients diagnosed with comorbid opiate use disorder and endocarditis with Sharon Walsh, PhD and Michelle Lofwall, MD.

*Research Specialist in Emory's Birdbrain Lab*

June 2016-May 2018

- Worked under PI Donna Maney to facilitate graduate and post-graduate fellow research projects relating to Zebra Finch song acquisition and White Throated Sparrow brain hormone development.
- Developed skills in qPCR, primer design, immunocytochemistry, in situ hybridization and animal husbandry.

*Scholarly Inquiry and Research at Emory (SIRE) Research Program Lab Assistant*

*Dr. Hillary Rodman Laboratory*

August 2013-May 2018

- Developed skills in microscopy, immunohistochemistry, tissue mounting, and critical reading of scientific articles.
- Conducted research towards my honors thesis on GABAergic distribution in an early insult model of schizophrenia titled, *Stereological Analysis of Prefrontal GABAergic Interneurons Following Neonatal Hippocampal Lesion in Rhesus Monkeys*.
- Worked approximately fifteen hours per week for thirty weeks each year in addition to a ten-week summer program.

*Garland Richmond Excellence in Research Fellow- SIRE Summer Program*

May 2015-August 2015

- Worked with Dr. Hillary Rodman on the beginning of my senior honors thesis, "GABAergic Organization in Prefrontal Cortex in Models of Early Insult Pathogenesis of Schizophrenia".
- Served in a leadership capacity as the Resident Advisor of the other eight Summer SIRE fellows.
- Fellowship awarded by the Emory Scholars Program to one outstanding applicant for the cost of the program.

*Emory Summer Undergraduate Research at Emory (SURE) Fellow*

May 2015-August 2015

- Participated in weekly ethics and professional development seminars.
- Presented to approximately 90 students on poster creation and data manipulation.

*Summer Internship – University of California at Los Angeles*

*Dr. Nicholas Brecha Laboratory*

May 2014 – August 2014

- Studied GABAergic feedback on horizontal cells of zebra fish using immunohistochemistry and confocal microscopy.
- Worked approximately 250 hours.

### Awards, Memberships, Presentations and Training:

*Professional Student Mentored Research Fellowship*

May 2019-May 2020

- Received a \$3000 grant to pursue research under Dr. Brian Gold in the University of Kentucky Department of Neuroscience for one summer and academic year

*Radiology Interest Group Treasurer*

May 2019-Present

- Managing a budget of \$700 to host interest group meetings and training sessions related to radiology

*Student Interest Group in Neurology (SIGN)*

August 2018-Present

- Active member within the University of Kentucky chapter

*Society for Neuroscience*

November 2016

- Presented the poster "Altered parvalbumin cell populations in dorsolateral prefrontal cortex after neonatal hippocampal damage in macaques" based on my senior honors thesis.

*Emory Scholars Program Alexander Means Scholarship*

August 2012 – May 2016

- Four year, full-tuition, merit scholarship

*Burt and Betty Shear Award*

May 2016

- Awarded on a university-wide basis to the student most likely to make a uniquely positive mark on his or her universe.
- "T.J. is a student leader who works behind the scenes, seeking no recognition or reward, but whose work makes a tremendous difference for his peers."

*Emory 100 Senior Honorary Inductee*

January 2016

- Chosen as one of the 100 Emory University seniors that best embody and work to advance the university's mission.

*Emory Scholars Finalist Selection Committee – Undergraduate Member*

March 2016

- One of five current undergraduate Emory Scholars selected to interview approximately 90 incoming Emory Scholar finalists.
- Worked with a team of Emory College faculty, staff, and alumni.

*Emory Scholars Senior Washington, D.C. Trip Attendee*

October 2015

- One of twelve senior scholar representatives to travel to Capitol Hill with Emory's Lobbyist
- Met with legislators, support staff and Emory alumni to discuss legislative issues important to higher education students.

*SURE Summer Research Program Symposium Presentation*

July 2015

- Presented the research poster titled "Investigating Altered Prefrontal GABAergic Organization through Systematic Random Sampling in an Early Insult Model of Schizophrenia"

*SIRE Research Partners Peer Mentor Presentation*

May 2015

- Presented a synopsis of my year's research titled "GABAergic Organization in Prefrontal Cortex in a Model of Early Insult Pathogenesis of Schizophrenia"

*SIRE Spring Research Poster Symposium: Second Place*

May 2014

- Presented the cumulative results from two semesters researching in the Rodman Laboratory
- Judged from a pool of approximately fifty undergraduate researchers

### **Other Relevant Experience:**

*Emory Undergraduate Research Programs – Postgraduate Fellow*

June 2016 – September 2017

- Assist with the day-to-day operations of the program that oversees all undergraduate research programs.
- Host daily mentoring hours for students interested in undergraduate research as well as support the program's six research ambassadors in their duties.

*Drugs and Behavior Graduate-Level Teaching Assistant*

August 2016 – December 2016

- Psychology and Neuroscience and Behavioral Biology cross-listed elective that uses drugs to understand neural circuits.
- Held weekly review session for students ranging in attendance from 5-45.
- Worked with Dr. Darryl Neill to score approximately 180 students' exams (3 exams).

*Behavioral Neuroscience Graduate-Level Teaching Assistant*

January 2016 – Present

- The third in the four-class core series of the Neuroscience and Behavioral Biology major.
- Working with Dr. Michael Crutcher and two other TAs to lead bi-weekly review sessions, create exam questions, and score exams for approximately 180 students (4 exams).

*Undergraduate Research Program Research Ambassador*

August 2015-May 2016

- Pioneered the Research ambassador position along with two faculty members and one co-research ambassador in Emory's Office of Education.
- Developed curricula for our research programs, planned research symposia, and generated campus interest in undergraduate research of all disciplines.
- Worked with co-research ambassador to support approximately 15 SIRE Peer Mentors in their classroom and SIRE program duties.

*SIRE Research Partners Peer Mentor*

August 2014-August 2015

- Worked with a graduate school mentor to develop basic research principles and ethics among undergraduate students.
- Developed and presented lesson plans with co-mentor and held monthly 1:1s with ten undergraduate students.