

**Professional Preparation**

Animal Behavior Ph.D., *Arizona State University*, Tempe, AZ (Aug 2013 – Dec 2017)

Neuroscience B.S., *Brandeis University*, Waltham, MA (Sep. 2009 – May 2013)

**Professional Experience**

Postdoctoral Fellow at Harvard University, Cambridge, MA

Sept 2020-present

*Department of Molecular and Cellular Biology: Murthy Laboratory*

- Postdoctoral work on the influence of affective and social states on olfactory processing

Post-Doctoral Associate at Boston University, Boston, MA

Jan 2018-Aug 2020

*Psychological and Brain Sciences Department: Ramirez Laboratory*

- Postdoctoral work on how social stimuli reactivate hippocampal fear engrams to modulate memory strength using chemogenetics, optogenetics, novel social behavioral paradigms, confocal microscopy

Visiting Student at Massachusetts Institute of Technology, Cambridge, MA

March 2017-Oct 2017

*Brain and Cognitive Sciences Department: Tye Laboratory*

- Collaborated on a project exploring the neural circuits regulating hunger and feeding behavior in mice (acquired skills in: stereotaxic surgery, virus injection, behavioral assays, perfusion, immunohistochemistry, confocal microscopy)

PhD Student at Arizona State University, Tempe, AZ

August 2013-Dec 2017

*Social Insect Research Group: Amdam Laboratory*

- Thesis: Modulation of Honey Bees' Sensing and Sharing of Food-Related Information (honey bee brain dissection, q-PCR, behavioral assays, high performance liquid chromatography)

Intern at Harvard University, Cambridge, MA

May 2012-August 2013

*Department of Organismic and Evolutionary Biology: Pierce Laboratory*

- Explored the field and lab behavior of a polymorphically social halictid bee *Augochlorella aurata*

Intern at Brandeis University, Waltham, MA

Sept. 2010-June 2011

*Department of Neuroscience: Griffith Laboratory*

- Investigated the genetic components of the pheromone based behavior of *Drosophila melanogaster* with courtship and sleep behavioral experiments.

Intern at Vertex Pharmaceuticals, Inc., Cambridge, MA

May 2010-August 2010

*Biomarker Research and Translational Pharmacology*

- Investigated the mechanism of action of drug candidates through preparation of large format acrylamide gels, DIGE labeling, and electrophoresis

Intern at Brandeis University, Waltham, MA

June 2009-May 2010

*Department of Neuroscience: Birren Laboratory of Developmental Neurobiology*

- Explored role of Bone Morphogenetic Protein in the differentiation of glial cells and neurons in mice

**Awards**

Illinois Distinguished Fellowship (2013)

ASU Graduate Recruitment Fellowship (2013-2014)

ASU RTI Field Fellowship Award (2014)

ASU CLAS Graduate Excellence Award (2014)

ASU School of Life Sciences Travel Award (2014, 2015, 2016)

ASU Graduate and Professional Student Association Individual Travel Grant (2016)

ASU RTI Graduate Training Fellowship Award (2016)

ASU SoLS Completion Fellowship (2017)

National Science Foundation Graduate Research Fellow (2014-2019)

Gordon Research Conference Poster Prize (2019)

**Publications**

**Finkelstein, AB.**, Leblanc, H., Cole, R., Gallerani, T., Vieira, A., Zaki, Y., Ramirez, S. (2021). Social reactivation of fear engrams enhances recall and reinstatement. *bioRxiv*. 2021.01.07.425728.

Chen, B., Murawski, N., Cincotta, C., McKissick, O., **Finkelstein, AB.**, Hamidi, AB., Merfeld, E., Doucette, E., Grella, SL.,

Zaki, Y., Fortin, A., Ramirez, S. (2019). Artificially enhancing and suppressing hippocampus-mediated memories. *Current Biology*. 29: 11.

**Finkelstein, AB.**, Brent, C., Giurfa, M., Amdam, GVA. (2019). Foraging experiences durably modulate honey bees' sucrose responsiveness and antennal lobe biogenic amine titers. *Scientific Reports*. 9: 5393.

**Finkelstein, AB.**, Amdam, GA. (2018). Aversive foraging conditions modulate downstream social food sharing. *Scientific Reports*. 8: 17764.

### Conference Presentations

**Abby Finkelstein\***, Rebecca Cole, Heloise Leblanc, Troy Gallerani, Anahita Hamidi, Yosif Zaki, Steve Ramirez. "Social and Affective Events Modulate Reactivation of Memory Ensembles." *Society for Neuroscience*, Chicago, IL, October 19-23, 2019.

**Abby Finkelstein\***, Rebecca Cole, Heloise Leblanc, Troy Gallerani, Anahita Hamidi, Yosif Zaki, Steve Ramirez. "Social and Affective Events Modulate Reactivation of Memory Ensembles." *Amygdala Function in Emotion, Cognition, and Disease Gordon Research Conference*, Easton, MA, August 4-9, 2010. (\$500 poster award)

**Abby Finkelstein.** (2019, June). "Affective Events Modulate Reactivation of Memory Ensembles." Talk presented at 2019 Hippocampus Conferences, Taormina, Italy.

**Abby Finkelstein\***, Anahita Hamidi\*, Yosif Zaki, Emily Merfeld, Emily Doucette, Stephanie L. Grella, Nathen Murawski, Monika Shpokayte, Steve Ramirez. "Manipulating a social ensemble to modulate socially induced reinstatement of a contextual fear memory." *Society for Neuroscience*, San Diego, CA, November 2-6, 2018.

Anahita Hamidi\*, **Abby Finkelstein\***, Yosif Zaki, Emily Merfeld, Emily Doucette, Stephanie L. Grella, Nathen Murawski, Monika Shpokayte, Steve Ramirez. "Manipulating a social engram to modulate socially induced reinstatement of a contextual fear memory." *Learning and Memory*, Huntington Beach, CA, April 18-22, 2018.

**Abby Basya Finkelstein\***, Colin Brent, Martin Giurfa, Gro Amdam. "The influence of punishment and reward experience on *Apis mellifera* neuroethology and social dynamics." *International Congress of Neuroethology*, Montevideo, Uruguay, March 29-April 3, 2016.

Anika Larson\*, Sisi Gao, Hillary Emick, Steven Hart, Katherine Larrimore, Amanda Suchy, Anni Poetzel, Vicki Moore, **Abigail Finkelstein**, Joey Tran, Tsafir Mor. "Teaching biology in a maximum-security prison unit: Notes, feedback, and recommendations from a pilot class." *AAAS*, San Jose, CA, February 12-16, 2015.

**Abby Finkelstein\***, Jake Seemann, Gro Amdam, Martin Giurfa. "Influence of Experience on *Apis mellifera* Sucrose Responsiveness." *Biology and Genomics of Social Insects*, Cold Spring Harbor, NYC, May 2-5, 2015.

**Abby Finkelstein\***, Gro Amdam, Martin Giurfa. "The Influence of Experience on Aptitude for Aversive and Appetitive Learning (*Apis mellifera*)." *Frontiers in Insect Behavior, Social Organization & Evolution*, Wurzburg, Germany, May 23-30, 2014.

### Outreach

Tutor – Housing Families inc., Malden, MA (Sept. 2018-April 2020)

- Mentoring and tutoring elementary and middle-school students who are at risk of or experiencing homelessness

Curriculum Designer and Teacher - Prison Biology, Phoenix, AZ (Dec. 2014-March 2017)

- Designed lessons and taught a biology course at the Florence State Prison

Science Mentor - Flight 33 inc, Pascua Yaqui Tribe Center, Guadalupe, AZ (Oct. 2014 – March 2017)

- Created and led a science program of interactive science activities for elementary and middle school students at the Pascua Yaqui tribe center

Graduate Mentor - Shades Program, Tempe, AZ (Mar 2015 – May 2015)

- Providing support and mentorship to a first year PhD student

Science Mentor - Graduate Partners in Science Education, Tempe, AZ (Sept. 2013- April 2015)

- Preparing and teaching weekly after-school science programs for 6<sup>th</sup>-8<sup>th</sup> grade students

### Teaching Experience

Teaching Assistant at Arizona State University, Tempe, AZ (Jan. 2014-May 2014)

- Animal Biology Lecture
- Cell Biology Lecture

Behavioral Neuroscience Teaching Assistant at Brandeis University, Waltham, MA (Jan. 2013–May 2013)