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# **Augustin C. Hennings**

The University of Texas at Austin Institute for Neuroscience

#### **Education**

#### Ph.D., The University of Texas at Austin (2016-Present)

Institute for Neuroscience

Advisors: Dr. Joseph Dunsmoor & Dr. Jarrod Lewis-Peacock

## **B.S. Neuroscience, The College of William and Mary** (2012-2016)

Departmental Honors in Neuroscience

College of Arts and Sciences, Department of Neuroscience

Advisor: Dr. Robert Barnet

Thesis Title: Light-Enhanced Startle as an Experimental Model of Withdrawal

## Major in Hispanic Studies, The College of William and Mary (2012-2016)

College of Arts and Sciences, Department of Modern Languages

#### **Professional Appointments**

#### The University of Texas at Austin, Institute for Neuroscience (2016-Present)

Graduate Research Assistant, Dr. Michael Drew (2016-2017)

Graduate Research Assistant, Dr. Jarrod Lewis-Peacock (2017-Present)

Graduate Research Assistant, Dr. Joseph Dunsmoor (2017-Present)

# The College of William and Mary, Department of Neuroscience (2013-2016)

Undergraduate research assistant, Dr. Robert Barnet (2013-2016)

Lab Manager, Dr. Robert Barnet (2014-2016)

#### **Publications**

- **Hennings, A. C.**, McClay, M., Lewis-Peacock, J. A., & Dunsmoor, J. E. (In Prep). Dissociable neural reinstatement of emotional memories in human PFC.
- **Hennings, A. C.**, Bibb, S. A., Lewis-Peacock, J. A., Dunsmoor, J. E. (Submitted). The effect of top-down thought suppression on fear extinction generalization.
- McClay, M, **Hennings, A. C.**, Reidel, A, & Dunsmoor, J. E. (Submitted). The features that shape fear: How emotional intensity and threat relevance interact to guide fear learning. Preprint available at https://doi.org/10.31234/osf.io/ckf8d
- **Hennings, A. C.**, McClay, M., Lewis-Peacock, J. A., & Dunsmoor, J. E. (2020). Contextual reinstatement promotes extinction generalization in healthy adults but not PTSD. *Neuropsychologia*. https://doi.org/10.1016/j.neuropsychologia.2020.107573
- Keller, N. E., **Hennings, A. C.**, & Dunsmoor, J. E. (2020). Behavioral and neural processes in counterconditioning: past and future directions. *Behaviour Research and Therapy.* https://doi.org/10.1016/j.brat.2019.103532

**Hennings, Augustin C**, "Light-Enhanced Startle as an Experimental Model of Withdrawal" (2016). *College of William & Mary Undergraduate Honors Theses.* Paper 947.

#### Awards/Support

- NRSA F31 Fellowship recipient (2020-2022)
- Big Data in Neuroscience Workshop Trainee Travel Award (2019), competitive travel award to attend workshop held by the Advanced Computational Neuroscience Network, UM Ann Arbor
- Wisconsin Symposium on Emotion Trainee Travel Award (2019), competitive travel award to present novel research at annual symposium, UW Madison
- Office of Graduate Studies Professional Development Award (2018), competitive travel award for presenting novel research at an academic conference
- Charles Center Summer Scholarship (2015), scholarship awarded for undergraduate research at The College of William and Mary.
- HHMI Freshman Research Award (2013), undergraduate award that provides funds for a novel project and the opportunity to work with a research mentor.

#### **Teaching and Mentorship**

# The University of Texas at Austin Teaching Assistant (2020)

• NEU337 Programming & Data Analysis. Introduction to using Python for Neuroscience taught by Dr. Marcel Goldschen-Ohm. Responsibilities included leading TA office hours and grading assignments.

#### **Undergraduate research assistant (RA) supervision** (2016-Present)

- Supervised and trained part-time undergraduate RAs for recruitment, implementation and data analysis of experiments (Stephanie Jeanneret, Swecha Ramireddy, Sophia Bibb)
- Mentor for Neuroscience Undergraduate Research Program, one-on-one mentoring of an undergraduate student on a neuroscience topic. (Mahaly Baptise, Marissa Alverez, Angelica Garcia, Alejandro Hipolito)

#### **Community Outreach** (2017-Present)

 Volunteer for Dell Medical School Health Sciences Summer Camp, lead module on brain decoding and principles of cognitive neuroscience for middle and high school students.

# The College of William and Mary

**Undergraduate research assistant supervision** (2014-2016)

- Supervised and trained undergraduate RAs for implementation and data collection of experiments including proper handling of animal subjects and injections of controlled substance.
- Established and supervised an undergraduate lab journal club that focused on critical analysis and presentation of scientific studies

#### **Selected Presentations and Invited Talks**

- **Hennings, A. C.,** McClay, M., Lewis-Peacock, J. A., Dunsmoor, J. E. (2019). *Dissociable neural representations of emotional memories in human PFC.* Talk presented at the Center for Learning and Memory Retreat, Austin, TX.
- **Hennings, A. C.,** McClay, M., Lewis-Peacock, J. A., Dunsmoor, J. E. (2019). "Emotional engrams": Reinstatement of emotional memories in humans. Talk presented at the Cognitive Neuroscience and Biomedical Imaging Center seminar, Austin, TX.

- **Hennings, A. C.,** McClay M., Lewis-Peacock, J. A., Dunsmoor, J. E. (2019). *Reinstatement of mental context resolves conflicts between fear and extinction memories.* Poster presented at the Wisconsin Symposium on Emotion, Madison, WI.
- **Hennings, A. C.,** McClay, M., Lewis-Peacock, J. A., Dunsmoor, J. E. (2019). *Reinstatement of mental context resolves conflicts between fear and extinction memories*. Poster presented at the Austin Conference on Learning and Memory, Austin, TX.
- Nocera, N., Vasudevan, K., **Hennings, A. C.**, Bonefas, K., Zemelman, B., Drew, M. (2019). *Isolation and analysis of Supramammillary Nucleus neurons projecting to the Hippocampus, Basolateral Amygdala, and Prefrontal Cortex*. Poster presented at the Austin Conference on Learning and Memory, Austin, TX.
- **Hennings, A. C.**, Lewis-Peacock, J. A., Dunsmoor, J. E. (2019). *Reinstatement of mental context facilitates retrieval of extinction memories.* Poster presented at the Cognitive Neuroscience Society Meeting. San Francisco, CA.
- **Hennings, A. C.,** McClay, M. Lewis-Peacock, J. A., Dunsmoor, J. E. (2018). *Reinstatement of mental context resolves conflicts between fear and extinction memories*. Talk presented at the Center for Learning and Memory Retreat, Austin, TX.
- **Hennings, A. C.,** Lewis-Peacock, J. A., Dunsmoor, J. E. (2018). *Mental context tagging reveals deficits of extinction learning in PTSD.* Nanosymposium presentation given at the Society for Neuroscience Annual Meeting. San Diego, CA.
- **Hennings, A. C.,** Lewis-Peacock, J. A., Dunsmoor, J. E. (2018). *Mental context tagging reveals deficits of extinction learning in PTSD.* Talk given at the Cognitive Neuroscience and Imaging Research Center seminar. Austin, TX.
- **Hennings, A. C.,** Lewis-Peacock, J. A., Dunsmoor, J. E. (2018). *Mental context tagging reveals deficits of extinction learning in PTSD.* Talk given at the Dallas & Austin Area Memory Meeting. Waco, TX.
- **Hennings, A. C.**, Lewis-Peacock, J.A., Dunsmoor, J. E. (2018). *Mental context reinstatement determines successful retrieval of extinction memories.* Poster presented at the Context and Episodic Memory Symposium, Philadelphia, PA.
- **Hennings, A. C.**, Lewis-Peacock, J.A., Dunsmoor, J. E. (2018). *Mental context reinstatement may underlie successful retrieval of extinction memories.* Poster presented at the Cognitive Neuroscience Meeting, Boston, MA.
- Nocera, N., **Hennings, A. C.,** Bonefas, K., Vasudevan, K., Zemelman, B., Drew, M. R. (2018) Supramammillary nucleus modulates dentate gyrus activity and hippocampus-dependent behavior. poster presented at the Society for Neuroscience Annual Meeting. San Diego, CA.
- **Hennings, A. C.**, Lewis-Peacock, J.A., Dunsmoor, J. E. (2017). *Tagging mental contexts during fear conditioning.* Presented at the Dallas & Austin Area Memory Meeting. Austin, TX.
- **Hennings, A. C.**, Jeanneret, S., Dutcher, A., Hollenbeck, M., Lewis-Peacock, J. A. (2017). *Competition and forgetting during context-based episodic memory retrieval*. Poster presented at the Austin Conference on Learning and Memory, Austin, TX.

Barnet R. C, **Hennings, A. C**. (2016). *Light-enhanced startle sensitivity to acute nicotine withdrawal*. Poster presented at the Society for Neuroscience annual meeting. San Diego, CA.

**Hennings, A. C.**, Yeluru, S., Rogers, S., Braden, D., Canty-Samuel, A., & Barnet. R.C. (2015, Sept.). *Vulnerable periods during nicotine withdrawal associated with relapse*. Poster presented at the annual Summer Research Showcase, College of William & Mary, Williamsburg, VA.

#### **Membership in Scientific Societies**

- Cognitive Neuroscience Society
- Society for Neuroscience
- · Psy Chi Honor Society

#### **References.** Letters available upon request.

Joseph E. Dunsmoor, Ph.D.
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Robert Barnet, Ph.D. Associate Professor, Department of Psychology The College of William and Mary 757-221-3874 rcbarn@wm.edu