



## Justin S. Feinstein, Ph.D.

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### POSITIONS

2013-present **LAUREATE INSTITUTE FOR BRAIN RESEARCH**  
Principal Investigator  
Director, *Float Clinic & Research Center*

2013-present **UNIVERSITY OF TULSA**  
Oxley College of Health Sciences  
Assistant Professor

2017-present **UNIVERSITY OF IOWA**  
Department of Neurology  
Adjunct Assistant Professor

### EDUCATION

2012-2013 **CALIFORNIA INSTITUTE OF TECHNOLOGY**  
Postdoctoral Scholar in Cognitive Neuroscience

2010-2011 **UNIVERSITY OF CALIFORNIA, SAN DIEGO**  
Predoctoral Internship in Clinical Psychology at the San Diego VA Hospital

2005-2012 **UNIVERSITY OF IOWA**  
Ph.D. in Clinical Psychology with a specialization in Neuropsychology  
Doctoral Dissertation: *Examination of the limbic system's role in emotional experience using a human lesion model*

1999-2003 **UNIVERSITY OF CALIFORNIA, SAN DIEGO**  
B.S. in Cognitive Science with a specialization in Neuroscience  
*Magna Cum Laude*

## PEER-REVIEWED PUBLICATIONS

(\* indicates shared first authorship)

- Paulus, M. P., **Feinstein, J. S.**, & Khalsa, S. S. (*under review*). Interoceptive psychopathology. Annual Review of Clinical Psychology.
- Khalsa, S. S., & **Feinstein, J. S.**, (*in press*). The somatic error hypothesis of anxiety. In M. Tsakiris & H. De Preester (Eds.), The Interoceptive Mind. New York: Oxford University Press.
- DeVille, D. C., Kerr, K. L., Avery, J. A., Burrows, K., Bodurka, J., **Feinstein, J. S.**, Khalsa, S. S., Paulus, M. P., & Simmons, W. K. (2018). The neural bases of interoceptive encoding and recall in healthy adults and adults with depression. Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, 3, 546-554.
- Feinstein, J. S.**, Khalsa, S. S., Yeh, H., Al Zoubi, O., Arevian, A. C., Wohlrab, C., Pantino, M. K., Cartmell, L. J., Simmons, W. K., Stein, M. B., & Paulus, M. P. (2018). The elicitation of relaxation and interoceptive awareness using floatation therapy in individuals with high anxiety sensitivity. Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, 3, 555-562.
- Feinstein, J. S.**, Khalsa, S. S., Yeh, H., Wohlrab, C., Simmons, W. K., Stein, M. B., & Paulus, M. P. (2018). Examining the short-term anxiolytic and antidepressant effect of Floatation-REST. PLoS ONE, 13, e0190292.
- Hassanpour, M. S., Luo, Q., Simmons, W. K., **Feinstein, J. S.**, Paulus, M. P., Luh, W. M., Bodurka, J., & Khalsa, S. S. (2018). Cardiorespiratory noise correction improves the ASL signal. Human Brain Mapping, 39, 2353-2367.
- Hassanpour, M. S., Simmons, W. K., **Feinstein, J. S.**, Luo, Q., Lapidus, R. C., Bodurka, J., Paulus, M. P., & Khalsa, S. S. (2018). The insular cortex dynamically maps changes in cardiorespiratory interoception. Neuropsychopharmacology, 43, 426-434.
- Khalsa, S. S., **Feinstein, J. S.**, Simmons, W. K., & Paulus, M. P. (2018). Taking aim at interoception's role in mental health. Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, 3, 496-498.
- Khalsa, S. S., Adolphs, R., Cameron, O. G., Critchley, H. D., Davenport, P. W., **Feinstein, J. S.**, Feusner, J. D., Garfinkel, S. N., Lane, R. D., Mehling, W. E., Meuret, A. E., Nemeroff, C. B., Oppenheimer, S., Petzschnner, F. H., Pollatos, O., Rhudy, J. L., Schramm, L. P., Simmons, W. K., Stein, M. B., Stephan, K. E., Van Den Bergh, O., Van Diest, I., von Leupoldt, A., Paulus, M. P., and the Interoception Summit 2016 participants (2018). Interoception and mental health: a roadmap. Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, 3, 501-513.
- Victor, T. A., Khalsa, S. S., Simmons, W. K., **Feinstein, J. S.**, Savitz, J., Aupperle, R. L., Yeh, H., Bodurka, J., & Paulus, M. P. (2018). Tulsa 1000: A naturalistic study protocol for multi-level assessment and outcome prediction in a large psychiatric sample. BMJ Open, 8, e016620.
- Marsh, N., Scheele, D., **Feinstein, J. S.**, Gerhardt, H., Strang, S., Maier, W., & Hurlmann, R. (2017). Oxytocin-enforced norm compliance reduces xenophobic outgroup rejection. Proceedings of the National Academy of Sciences, 114, 9314-9319.
- Reber, J., **Feinstein, J. S.**, O'Doherty, J. P., Liljeholm, M., Adolphs, R., & Tranel, D. (2017). Selective impairment of goal-directed decision-making following lesions to the human ventromedial prefrontal cortex. Brain, 140, 1743-1756.

- Feinstein, J. S.**, Adolphs, R., & Tranel, D. (2016). A tale of survival from the world of Patient SM. In D. Amaral & R. Adolphs (Eds.), Living Without an Amygdala (pp. 1-38). New York: Guilford Press.
- Feinstein, J. S.**, Khalsa, S. S., Salomons, T. V., Prkachin, K. M., Frey-Law, L. A., Lee, J. E., Tranel, D., & Rudrauf, D. (2016). Preserved emotional awareness of pain in a patient with extensive bilateral damage to the insula, anterior cingulate, and amygdala. Brain Structure and Function, 221, 1499-1511.
- Guzmán-Vélez, E., Warren, D. E., **Feinstein, J. S.**, Bruss, J., & Tranel, D. (2016). Dissociable contributions of amygdala and hippocampus to emotion and memory in patients with Alzheimer's disease. Hippocampus, 26, 727-738.
- Khalsa, S. S., \***Feinstein, J. S.**, Li, W., Feusner, J. D., Adolphs, R., & Hurlmann, R. (2016). Panic anxiety in humans with bilateral amygdala lesions: Pharmacological induction via cardiorespiratory interoceptive pathways. Journal of Neuroscience, 36, 3559-3566.
- Couto, B., Adolphi, F., Velasquez, M., Mesow, M., **Feinstein, J.**, Canales-Johnson, A., Mikulan, E., Martínez-Pernía, D., Bekinschtein, T., Sigman, M., Manes, F., & Ibanez, A. (2015). Heart evoked potential triggers brain responses to natural affective scenes: A preliminary study. Autonomic Neuroscience, 193, 132-137.
- Bijanki, K. R., Kovach, C. K., McCormick, L. M., Kawasaki, H., Dlouhy, B. J., **Feinstein, J. S.**, Jones, R. D., & Howard, M. A. (2014). Stimulation of the right amygdala induces transient changes in affective bias. Brain Stimulation, 7, 690-693.
- Guzmán-Vélez, E., **Feinstein, J. S.**, & Tranel, D. (2014). Feelings without memory in Alzheimer disease. Cognitive and Behavioral Neurology, 27, 117-129.
- Feinstein, J. S.** (2013). Lesion studies of human emotion and feeling. Current Opinion in Neurobiology, 23, 304-309.
- Feinstein, J. S.**, Buzza, C., Hurlmann, R., Follmer, R. L., Dahdaleh, N. S., Coryell, W. H., Welsh, M. J., Tranel, D., & Wemmie, J. A. (2013). Fear and panic in humans with bilateral amygdala damage. Nature Neuroscience, 16, 270-272.
- Becker, B., Mihov, Y., Scheele, D., Kendrick, K. M., **Feinstein, J. S.**, Matusch, A., Aydin, M., Reich, H., Urbach, H., Oros-Peusquens, A., Shah, N. J., Kunz, W. S., Schlaepfer, T. E., Zilles, K., Maier, W., & Hurlmann, R. (2012). Fear processing and social networking in the absence of a functional amygdala. Biological Psychiatry, 72, 70-77.
- Cavaco, S., \***Feinstein, J. S.**, Twillert, H. V., & Tranel, D. (2012). Musical memory in a patient with severe anterograde amnesia. Journal of Clinical and Experimental Neuropsychology, 34, 1089-1100.
- Philippi, C., \***Feinstein, J. S.**, Khalsa, S. S., Damasio, A., Tranel, D., Landini, G., Williford, K., & Rudrauf, D. (2012). Preserved self-awareness following extensive bilateral brain damage to the insula, anterior cingulate, and medial prefrontal cortices. PLoS ONE, 7, e38413.
- Scheele, D., Mihov, Y., Kendrick, K. M., **Feinstein, J. S.**, Reich, H., Maier, W., & Hurlmann, R. (2012). Amygdala lesion profoundly alters altruistic punishment. Biological Psychiatry, 72, e5-e7.
- Feinstein, J. S.**, Adolphs, R., Damasio, A., & Tranel, D. (2011). The human amygdala and the induction and experience of fear. Current Biology, 21, 34-38.
- Feinstein, J. S.**, Duff, M. C., & Tranel, D. (2010). Sustained experience of emotion after loss of memory in patients with amnesia. Proceedings of the National Academy of Sciences, 107, 7674-7679.

- Feinstein, J. S.**, Rudrauf, D., Khalsa, S. S., Cassell, M. D., Bruss, J., Grabowski, T. J., & Tranel, D. (2010). Bilateral limbic system destruction in man. Journal of Clinical and Experimental Neuropsychology, 32, 88-106.
- Feinstein, J. S.**, & Tranel, D. (2009). Online measures of non-conscious processing. In T. Baynes, A. Cleeremans & P. Wilken (Eds.), The Oxford Companion to Consciousness (pp. 485-487). New York: Oxford University Press.
- Khalsa, S. S., Rudrauf, D., **Feinstein, J. S.**, & Tranel, D. (2009). The pathways of interoceptive awareness. Nature Neuroscience, 12, 1494-1496.
- Tranel, D., **Feinstein, J. S.**, & Manzel, K. (2008). Further lesion evidence for the neural basis of conceptual knowledge for persons and other concrete entities. Journal of Neuropsychology, 2, 301-320.
- Simmons, A., Matthews, S. C., **Feinstein, J. S.**, Hitchcock, C., Paulus, M. P., & Stein, M. B. (2008). Anxiety vulnerability is associated with altered anterior cingulate response to an affective appraisal task. Neuroreport, 19, 1033-1037.
- Stein, M. B., Simmons, A., **Feinstein, J. S.**, & Paulus, M. P. (2007). Increased amygdala and insula activation during emotion processing in anxiety-prone subjects. The American Journal of Psychiatry, 164, 318-327.
- Arce, E., Miller, D. A., **Feinstein, J. S.**, Stein, M. B., & Paulus, M. P. (2006). Lorazepam dose-dependently decreases risk-taking related activation in limbic areas. Psychopharmacology, 189, 105-116.
- Feinstein, J. S.**, Stein, M. B., & Paulus, M. P. (2006). Anterior insula reactivity during certain decisions is associated with neuroticism. Social Cognitive and Affective Neuroscience, 1, 136-142.
- Leland, D. S., Arce, E., **Feinstein, J. S.**, & Paulus, M. P. (2006). Young adult stimulant users' increased striatal activation during uncertainty is related to impulsivity. Neuroimage, 33, 725-731.
- Simmons, A., Stein, M. B., Matthews, S. C., **Feinstein, J. S.**, & Paulus, M. P. (2006). Affective ambiguity for a group recruits ventromedial prefrontal cortex. Neuroimage, 29, 655-661.
- Paulus, M. P., **Feinstein, J. S.**, Castillo, G., Simmons, A. N., & Stein, M. B. (2005). Dose-dependent decrease of activation in bilateral amygdala and insula by lorazepam during emotion processing. Archives of General Psychiatry, 62, 282-288.
- Paulus, M. P., **Feinstein, J. S.**, Leland, D., & Simmons, A. N. (2005). Superior temporal gyrus and insula provide response and outcome-dependent information during assessment and action selection in a decision-making situation. Neuroimage, 25, 607-615.
- Simmons, A., Miller, D., **Feinstein, J. S.**, Goldberg, T. E., & Paulus, M. P. (2005). Left inferior prefrontal cortex activation during a semantic decision-making task predicts the degree of semantic organization. Neuroimage, 28, 30-38.
- Feinstein, J. S.**, Stein, M. B., Castillo, G. N., & Paulus, M. P. (2004). From sensory processes to conscious perception. Consciousness and Cognition, 13, 323-335.
- Paulus, M. P., **Feinstein, J. S.**, Simmons, A., & Stein, M. B. (2004). Anterior cingulate activation in high trait anxious subjects is related to altered error processing during decision making. Biological Psychiatry, 55, 1179-1187.
- Paulus, M. P., **Feinstein, J. S.**, Tapert, S. F., & Liu, T. T. (2004). Trend detection via temporal difference model predicts inferior prefrontal cortex activation during acquisition of advantageous action selection. Neuroimage, 21, 733-743.

Paulus, M. P., Rogalsky, C., Simmons, A., **Feinstein, J. S.**, & Stein, M. B. (2003). Increased activation in the right insula during risk-taking decision making is related to harm avoidance and neuroticism. *Neuroimage*, 19, 1439-1448.

**Feinstein, J. S.**, Goldin, P. R., Stein, M. B., Brown, G. G., & Paulus, M. P. (2002). Habituation of attentional networks during emotion processing. *Neuroreport*, 13, 1255-1258.

## PRESENTATIONS

Feinstein, J. S., & Khalsa, S. S. Floatation therapy for anxiety and anorexia nervosa. Innovations in Mental Health Breakout Session at the 24<sup>th</sup> annual *Zarrow Mental Health Symposium*. Tulsa, OK. October 2018.

Feinstein, J. S. Desensitizing an anxious nervous system. Planned keynote address at the 7<sup>th</sup> annual *Float Conference*. Portland, OR. August 2018.

Feinstein, J. S. Examining the short-term anxiolytic effect of Floatation-REST. Poster presentation at the *Society of Biological Psychiatry 73<sup>rd</sup>* annual meeting. New York, NY. May 2018.

Feinstein, J. S. Development of Floatation-REST as a novel intervention for anxiety. *Rise float conference*. St. Louis, MO. April 2018.

Khalsa, S. S., Moseman, S. E., Yeh, H., Simmons, W. K., Paulus, M. P., & Feinstein, J. S. Reduced environmental stimulation in anorexia nervosa. Poster presentation at the *International Conference on Eating Disorders*. Chicago, IL. April 2018.

Feinstein, J. S. Enhancing interoception and mindfulness in anxious patients using Floatation-REST. *Invited lecture at the Center for BrainHealth at the University of Texas*. Dallas, TX. March 2018.

Feinstein, J. S. Development of Floatation-REST as a novel intervention for anxiety. *Grand Rounds* presentation at the University of Tulsa, Oxley College of Health Sciences. Tulsa, OK. February 2018.

Feinstein, J. S., Khalsa, S. S., Al Zoubi, O., Yeh, H., Simmons, W. K., Stein, M. B., & Paulus, M. P. Examining the anxiolytic effect of Floatation-REST. Poster presentation at the *American College of Neuropsychopharmacology (ACNP) 56<sup>th</sup>* annual meeting. Palm Springs, CA. December 2017.

Feinstein, J. S., & Khalsa, S. S. Reducing anxiety and stress with Floatation therapy. Workshop at the 23<sup>rd</sup> annual *Zarrow Mental Health Symposium*. Tulsa, OK. October 2017.

Feinstein, J. S. Float away anxiety. Slide presentation at the *Healthy Brains for a Healthy Oklahoma* lecture series. Tulsa, OK. October 2017.

Feinstein, J. S. Examining the short-term anxiolytic effect of Floatation-REST. Keynote address at the 6<sup>th</sup> annual *Float Conference*. Portland, OR. August 2017.

Feinstein, J. S. Calming the anxious brain via float therapy. Slide presentation at the *Affective Neuroscience (ANGST) colloquium* at the National Institute of Mental Health. Bethesda, MD. June 2017.

Makapati, T., Wohlrab, C., Alarbi, A., Potter, W., & Feinstein, J. S. Benefits of floatation tanks as novel tools for stress reduction. Poster presentation at the 253<sup>rd</sup> national meeting of the *American Chemical Society*. San Francisco, CA. April 2017.

- Makkapati, T., Wohlrab, C., Feinstein, J. S., & Potter, W. Cortisol and melatonin markers in floatation tank stress reduction research. Slide presentation at the University of Tulsa's 20<sup>th</sup> annual *Student Research Colloquium*. Tulsa, OK. March 2017.
- Warnken, J., Clutter, L. B., & Feinstein, J. S. Measuring the neurobiological effects of stress reduction via floatation therapy. Poster presentation at the 4th *Tulsa Research Partners Citywide Research Day*. Tulsa, OK. November 2016.
- Feinstein, J. S. Floatation-REST: A novel tool for studying interoception and ameliorating anxiety sensitivity. Slide presentation at the *Interoception Summit*. Tulsa, OK. November 2016.
- Feinstein, J. S., Khalsa, S. S., Simmons, W. K., & Paulus, M. P. Floatation-REST: A novel environment for enhancing interoceptive awareness. Slide presentation at the *Mind & Life International Symposium for Contemplative Studies*. San Diego, CA. November 2016.
- Feinstein, J. S., & Khalsa, S. S. Floatation therapy for trauma and anxiety: Evolving research, promising results. Workshop at the 22<sup>nd</sup> annual *Zarrow Mental Health Symposium*. Tulsa, OK. September 2016.
- Feinstein, J. S. Calming the anxious brain via float therapy. Slide presentation at the *Lost in Translation? Great Clinical Science and Great Clinical Problems in Mental Health* conference at the University of Tulsa. Tulsa, OK. September 2016.
- Feinstein, J. S. Central effects of floatation therapy explored using functional neuroimaging. Symposium at the *International Society of Psychoneuroendocrinology* 46<sup>th</sup> annual meeting. Miami, FL. September 2016.
- Feinstein, J. S. Exploring the anti-anxiety effects of floating using fMRI. Slide presentation at the 5<sup>th</sup> annual *Float Conference*. Portland, OR. August 2016.
- Wohlrab, C., & Feinstein, J. S. Measuring the physiological effects of floating. Slide presentation at the 5<sup>th</sup> annual *Float Conference*. Portland, OR. August 2016.
- Feinstein, J. S. Fear in the brain and body. Slide presentation at the *Healthy Brains for a Healthy Oklahoma* lecture series. Tulsa, OK. June 2016.
- Schettler, J., Green, S. R., Refai, H. H., & Feinstein, J. S. The Selection and Validation of Biosensors for Studying a Novel Healthcare Environment. Slide presentation at the *IEEE 1<sup>st</sup> International Conference on Connected Health: Applications, Systems and Engineering Technologies* (pp. 312-321). Washington, D.C. June 2016.
- Feinstein, J. S. Floatation therapy: Reconnecting our inner body with our blue mind. Slide presentation at the 6<sup>th</sup> *Blue Mind Summit*. Asilomar, CA. May 2016.
- Feinstein, J. S. Floatation-REST: A novel tool to study interoception. Symposium at the *Society of Biological Psychiatry* 71<sup>st</sup> annual meeting. Atlanta, GA. May 2016.
- Feinstein, J. S., Khalsa, S. S., & Aupperle, R. L. Integrating brain and body to improve mental health. Keynote address at the *National Association of Social Workers of Oklahoma* annual conference. Norman, OK. March 2016.
- Feinstein, J. S., Khalsa, S. S., Paulus, M. P., Haase, L., Adolphs, R., & Hurlmann, R. Amygdala-independent pathways involved in the generation of interoceptive fear. Poster presentation at the *American College of Neuropsychopharmacology (ACNP)* 54<sup>th</sup> annual meeting. Hollywood, FL. December 2015.
- Feinstein, J. S. Float away anxiety. *Grand Rounds* presentation at the University of Tulsa, Oxley College of Health Sciences. Tulsa, OK. December 2015.
- Feinstein, J. S. Float away anxiety. Slide presentation at the Oklahoma Department of Mental Health and Substance Abuse Services *Prevention & Recovery conference*. Norman, OK. November 2015.

- Feinstein, J. S., Khalsa, S. S., & Aupperle, R. L. Integrating brain and body to improve mental health. Workshop at the 21<sup>st</sup> annual *Zarrow Mental Health Symposium*. Tulsa, OK. September 2015.
- Feinstein, J. S. Eternal sunshine of a floating mind. Slide presentation at the 4<sup>th</sup> annual *Float Conference*. Portland, OR. August 2015.
- Feinstein, J. S. Floating toward a blue mind and a restful sleep. Slide presentation at the 5<sup>th</sup> *Blue Mind Summit*. Washington, D.C. May 2015.
- Feinstein, J. S. The body's response to fear. Slide presentation at the 14<sup>th</sup> annual *Caring for Your Congregation's Mental Health* organized by the Mental Health Association of Oklahoma. Tulsa, OK. April 2015.
- Feinstein, J. S., Simmons, W. K., Roberson-Nay, R. & Khalsa, S. S. Mechanisms of altered interoceptive awareness in anxiety and depression. Symposium at the *Anxiety and Depression Association of America (ADAA)* annual conference. Miami, FL. April 2015.
- Feinstein, J. S., Simmons, W. K., & Paulus, M. P. Improving mental health through neuroscience. Workshop at the 20<sup>th</sup> *Zarrow Mental Health Symposium*. Tulsa, OK. September 2014.
- Feinstein, J. S. Introducing the LIBR Float Clinic and Research Center. Slide presentation at the 3<sup>rd</sup> annual *Float Conference*. Portland, OR. August 2014.
- Feinstein, J. S. Life without the amygdala: A lesion approach toward understanding fear in the brain. Invited speaker at the *William K. Warren, Jr. - Frontiers in Neuroscience* conference series. Tulsa, OK. December 2013.
- Feinstein, J. S. Float away anxiety. Slide presentation at the 2<sup>nd</sup> annual *Float Conference*. Portland, OR. August 2013.
- Feinstein, J. S. Fear and the human amygdala. Slide presentation at the *UCSD Center on Interoceptive Dysregulation*. San Diego, CA. February 2011.
- Feinstein, J. S., & Tranel, D. Probing the experience of fear in Patient SM. Poster presentation (#91.12) at the *Society for Neuroscience 39<sup>th</sup> annual meeting*. Chicago, IL. October 2009.
- Feinstein, J. S., & Tranel, D. Bilateral limbic system destruction in man. Poster presentation at the *International Neuropsychological Society 37<sup>th</sup> annual meeting*. Atlanta, GA. February 2009.
- Feinstein, J. S., Khalsa, S. S., Salomons, T. V., Prkachin, K. M., Frey Law, L. A., Vance, C., Lee, J. E., Morrison, I., Stamy, C. D., Grabowski, T. J., Tranel, D., & Rudrauf, D. The experience of pain without the anterior cingulate and insular cortex. Poster presentation (#786.14) at the *Society for Neuroscience 38<sup>th</sup> annual meeting*. Washington, D.C. November 2008.
- Feinstein, J. S. Fear without the human amygdala? Slide presentation at the *Neurosurgery Research Conference*. Iowa City, IA. November 2007.
- Feinstein, J. S., Duff, M. C., Denburg, N. L., Tranel, D. Stuck in a mood and you can't remember why: Evidence for the sustained experience of emotion beyond declarative memory in amnesia. Slide presentation (#669.11) at the *Society for Neuroscience 37<sup>th</sup> annual meeting*. San Diego, CA. November 2007.
- Feinstein, J. S., Duff, M. C., Tranel, D. Stuck in a mood and you can't remember why: Evidence for the sustained experience of emotion beyond declarative memory in amnesia. Poster presentation (#F50) at the *Cognitive Neuroscience Society 14<sup>th</sup> annual meeting*. New York, NY. May 2007.

- Feinstein, J. S., Tranel, D. Life without the amygdala: Minimal fear and anxiety. Poster presentation at the *Neural Systems of Social Behavior* conference. Austin, TX. May 2007.
- Feinstein, J. S., Stein, M. B., Leland, D., Simmons, A., Paulus, M. P. Dissecting decision-making: Differential involvement of the prefrontal cortex and anterior insula in action selection, anticipation, and outcome evaluation. Slide presentation (#372.3) at the *Society for Neuroscience* 34<sup>th</sup> annual meeting. San Diego, CA. October 2004.
- Feinstein, J. S., Stein, M. B., Leland, D. S., Paulus, M. P. Activation in the bilateral anterior insula during decision-making positively correlates with neuroticism. Poster presentation at the *Biological Basis of Personality and Individual Differences* conference. Stony Brook, NY. August 2004.
- Feinstein, J. S., Stein, M. B., Castillo, G. N., Paulus, M. P. From perception to conscious awareness via the anterior cingulate and prefrontal cortex. Slide presentation (#228.9) at the *Society for Neuroscience* 33<sup>rd</sup> annual meeting. New Orleans, LA. November 2003.
- Feinstein, J. S., & Paulus, M. P. The effect of a supra-capacity working memory challenge on the activation of the prefrontal cortex. Slide presentation at the 14<sup>th</sup> annual *UCSD Undergraduate Research Conference*. San Diego, CA. May 2001.

## RESEARCH BACKGROUND

- 2012-2013                      POSTDOCTORAL SCHOLAR IN COGNITIVE NEUROSCIENCE  
 California Institute of Technology  
 Supervisor: Ralph Adolphs, Ph.D.  
 Research examined the neural basis of interoceptive fear using functional neuroimaging and pharmacological interventions in rare human patients with focal bilateral amygdala lesions.
- 2005-2012                      GRADUATE STUDENT RESEARCH ASSISTANT, Neurology  
 University of Iowa  
 Supervisor: Daniel Tranel, Ph.D.  
 Research explored brain-behavior relationships in neurological patients with circumscribed brain damage. Projects were primarily aimed at understanding how the subjective experience of emotion was altered by lesions within the limbic and paralimbic neural circuitry. Particular topics of investigation included the study of emotion in patients with amnesia, affective chronometry and the time course of emotion recovery, examination of fear and panic in patients with amygdala damage, and the combination of the lesion method with functional neuroimaging.
- 2000-2005                      UNDERGRADUATE STUDENT RESEARCH ASSISTANT, Psychiatry  
 University of California, San Diego  
 Supervisors: Martin Paulus, M.D., and Murray Stein, M.D.  
 Research assessed the neural substrates underlying components of cognition, affect, and personality in relation to psychiatric illness using functional magnetic resonance imaging. PharmacofMRI studies were also conducted with the aim of understanding how various drug manipulations dose-dependently modulate neural activity. Populations studied included patients with Posttraumatic Stress Disorder, Social Phobia, Schizophrenia, and Methamphetamine-Dependence.



## CLINICAL TRAINING

- 2010-2011            OEF/OIF PTSD CLINIC, Psychiatry  
San Diego VA Hospital  
Supervisors: Sonya Norman, Ph.D., and Steven Thorp, Ph.D.  
The Operation Enduring Freedom/Operation Iraqi Freedom (OEF/OIF) clinic provided supervised training in the assessment and treatment of posttraumatic stress disorder (PTSD) in recently deployed veterans. Training focused on using time-limited empirically supported PTSD interventions, including Prolonged Exposure Therapy and Cognitive Processing Therapy. I also conducted a weekly group therapy session for treatment of posttraumatic anger and aggression issues using mindfulness-based cognitive therapy.
- 2010-2011            TBI COGNITIVE REHABILITATION PROGRAM, Psychiatry  
San Diego VA Hospital  
Supervisor: Amy Jak, Ph.D.  
Supervised training in providing cognitive rehabilitation to veterans with mild to moderate traumatic brain injuries stemming from the wars in Iraq and Afghanistan. Treatment was provided using the CogSMART (Cognitive Symptom Management and Rehabilitation Therapy) treatment manual and focused on compensatory strategies, memory, planning, organization, problem solving, skills for academic success, and family education.
- 2010-2011            NEUROPSYCHOLOGICAL ASSESSMENT UNIT, Psychiatry  
San Diego VA Hospital  
Supervisors: Dean Delis, Ph.D., Mark Bondi, Ph.D., Vincent Filoteo, Ph.D.,  
and Gregory Brown, Ph.D.  
Supervised training in neuropsychological assessment by an experienced team of board-certified clinical neuropsychologists. Patients spanned a range of neurological and psychiatric conditions including traumatic brain injury, stroke, movement disorders, PTSD, depression, Alzheimer's disease and other types of dementia.
- 2008-2010            BENTON NEUROPSYCHOLOGY CLINIC, Neurology  
University of Iowa Hospitals & Clinics  
Supervisors: Daniel Tranel, Ph.D., Robert Jones, Ph.D., and  
Joseph Barrash, Ph.D.  
Supervised training in neuropsychological assessment by an experienced team of board-certified clinical neuropsychologists. Patients spanned a range of neurological conditions including stroke, epilepsy, brain cancer, movement disorders, Alzheimer's disease and other types of dementia.
- 2006-2010            SEASHORE PSYCHOLOGY CLINIC, Psychology  
University of Iowa  
Supervisors: James Marchman, Ph.D., Lee Anna Clark, Ph.D., and  
Gregory Gullickson, Ph.D.  
Outpatient mental health clinic that provided supervised training in psychotherapy and psychodiagnostic testing. Detailed psychological evaluations were undertaken for patients with intellectual disabilities, learning disorders, and ADHD. Additionally, a number of adult patients were seen on a long-term basis for weekly psychotherapy sessions. Therapy patients presented with a variety of issues including depression, anxiety, bipolar disorder, schizophrenia, alcohol dependence, and borderline personality disorder. Treatment strategies focused on acceptance and mindfulness-based techniques rooted in behavioral therapies such as Acceptance and Commitment Therapy and Behavioral Activation.

## TEACHING EXPERIENCE

- Fall 2014 &  
Fall 2016                      LECTURER, Biology  
University of Tulsa  
Instructor: Jason Avery, Ph.D.  
Presented on fear and the amygdala in an undergraduate upper-division biology course entitled *Principles of Neuroscience*.
- Fall 2006 &  
Spring 2007                      TEACHING ASSISTANT, Introductory Psychology  
University of Iowa  
Instructors: Michael O'Hara, Ph.D., and Shaun Vecera, Ph.D.  
Undergraduate lower-division psychology course entitled *Elementary Psychology*. Duties included teaching four sections a week, and creation/grading of paper assignments, quizzes and exams.
- Fall 2005                              TEACHING ASSISTANT, Biological Psychology  
University of Iowa  
Instructor: Joshua Rodefer, Ph.D.  
Undergraduate lower-division psychology course entitled *Introduction to Brain and Behavior*. Duties included teaching four sections a week, and creation/grading of paper assignments, quizzes and exams.
- Spring 2003 &  
Spring 2004                      TEACHING ASSISTANT, Cognitive Neuroscience  
University of California, San Diego  
Instructor: Andrea Chiba, Ph.D.  
Undergraduate upper-division cognitive science course reviewing brain systems implicated in attention, stress, emotion and memory. Duties included teaching a weekly section and a monthly review session, and creation/grading of quizzes and exams.

## MENTORSHIP & SERVICE

### High School Students

- Fall 2000 - Spring 2003              President and founding member of *Students for the Future of America*, a UCSD student-run organization dedicated to mentoring underprivileged children and teenagers in San Diego. The organization's mission was to promote the pursuit of higher education with the long-term goal of increasing diversity within the university student population.

### Undergraduate Students

- Spring 2014 - Summer 2015      Will Schoenhals, TU Department of Electrical Engineering (co-mentored by Dr. Kaveh Ashenayi)
- Fall 2014                              Hannah Cole, TU Department of Psychology
- Fall 2014                              Morgan Krueger, TU Department of Psychology
- Fall 2014 - Spring 2015              Michelle Stephens, TU Department of Psychology
- Fall 2014 - Spring 2015              Madison Crane, TU Department of Psychology
- Fall 2014 - Summer 2015            Montega Jordan, TU Department of Psychology
- Fall 2014 - Summer 2015            Kathryn Tombridge, TU Department of Psychology

Spring 2016 - Fall 2017	Teja Makkapati, TU Department of Psychology (co-mentored by Dr. Bill Potter, TU Department of Biochemistry)
Summer 2016	Sonali Gottani, Washington University Department of Psychology
Summer 2016 - Fall 2017	Mrudula Gattu, TU Department of Psychology
Summer 2016 - Fall 2017	Caylee Winterberg, TU Department of Psychology
Spring 2017 - Spring 2018	Collin Lundy, TU Department of Psychology
Summer 2017	Cyle Famuliner, OU Department of Biomedical Engineering (co-mentored by Dr. Hazem Refai)
Summer 2018	Tate Poplin, Rice University
Summer 2017 & 2018	Jessyca Naegele, OSU Department of Psychology
Summer 2017 - present	Laci Cartmell, TU Department of Psychology
Spring 2018 - present	Sam Arledge, TU Department of Psychology (co-mentored by Dr. Bill Potter, TU Department of Biochemistry)

#### Tulsa Undergraduate Research Challenge (TURC) students

Summer 2015	Will Schoenhals, TU Department of Electrical Engineering (co-mentored by Dr. Kaveh Ashenayi, Department Chair)
Summer 2016	Jessica Warnken, TU School of Nursing (co-mentored by Dr. Lynn Clutter, Oxley College of Health Sciences)

#### Graduate Students

Summer 2014 - Spring 2016	Jesse Schettler, OU Department of Electrical Engineering, Masters (co-mentored by Dr. Hazem Refai)
Spring 2016 - Fall 2018	Obada Al Zoubi, OU Department of Electrical Engineering, PhD (co-mentored by Dr. Hazem Refai)
Fall 2015 - Fall 2017	Will Schoenhals, TU Department of Electrical Engineering, Masters (co-mentored by Dr. Kaveh Ashenayi)

#### Dissertation & Thesis Committees

Fall 2014 - Spring 2017	PhD Dissertation Committee – Kara Kerr, University of Tulsa, Clinical Psychology, “ <i>Examining the relationship between anxiety and gastrointestinal function in anorexia nervosa</i> ”
Summer 2014 - Spring 2016	Master’s Thesis Committee (co-chair) – Jesse Schettler, University of Oklahoma, Electrical and Computer Engineering, “ <i>Selection and validation of biosensors for a novel healthcare environment</i> ”
Fall 2015 - Fall 2017	Master’s Thesis Committee (co-chair) – Will Schoenhals, University of Tulsa, Electrical and Computer Engineering, “ <i>The research and development of a wireless hand dynamometer as part of a physiological health monitoring system</i> ”

#### Other Committees

Fall 2016 - Spring 2017	Student Research Grant Committee, University of Tulsa
Fall 2016 - Spring 2017	Faculty Research Grant Committee, University of Tulsa
Spring 2016 - Fall 2016	Organizing Committee for LIBR’s inaugural <i>Interoception Summit</i>

### Miscellaneous Service

Fall 2017 - Spring 2018

Co-editor of special issue on Interoception and Mental Health in the the journal of *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*

October 3, 2017

Presentation to the *Science of Health Delivery*, a graduate-level class at the Oxley College of Health Sciences taught by Jeffrey Alderman

March 23, 2017

Dinner meeting and tour of LIBR with Early Careers in Community Medicine (ECCM) program from the University of Tulsa

March 24, 2014

Organized tour of LIBR for IEEE students and professors from the University of Tulsa

January 31, 2014

Presentation to the University of Tulsa IEEE student branch

### Ad Hoc Journal Reviewer

*Biological Psychiatry, Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, Consciousness and Cognition, Cerebral Cortex, Cortex, European Journal of Integrative Medicine, European Journal of Neuroscience, Journal of Clinical and Experimental Neuropsychology, Journal of Cognitive Neuroscience, Learning and Memory, Neuropsychologia, Neuropsychology, Neuroscience & Biobehavioral Reviews, Neuroscience Letters, Physiology & Behavior, PLoS ONE, Proceedings of the National Academy of Sciences, Psychological Medicine, Psychological Science, Social Cognitive and Affective Neuroscience, Social Neuroscience*

### Professional Affiliations

*Society for Neuroscience, Society of Biological Psychiatry, Cognitive Neuroscience Society, Anxiety and Depression Association of America*

### **AWARDS & HONORS**

- Aspen Ideas Festival, Spotlight Health Scholar, 2015
- Travel award winner, American College of Neuropsychopharmacology (ACNP), 2015
- Travel award winner, University of Wisconsin Symposium on Emotion, 2008
- Jeffrey A. Gray Tribute Award for the best presentation at the *Biological Basis of Personality and Individual Differences* conference in Stony Brook, NY, 2004
- Teaching Assistant of the Year: UCSD Cognitive Science Department, 2004
- Teaching Assistant of the Year: UCSD Cognitive Science Department, 2003
- Most Inspirational Player: California State-Champion High School Football Team, Woodbridge Warriors, 1999

### **GRANTS & FELLOWSHIPS**

<b>Time Period</b>	<b>Funding Organization</b>	<b>Role</b>	<b>Title</b>	<b>Total Funds</b>
2017 – 2022	National Institute of General Medical Sciences at the National Institutes of Health	PI	Centers of Biomedical Research Excellence (COBRE) Project: <i>Predicting treatment response to exposure therapy using a CO<sub>2</sub> habituation paradigm in patients with high levels of anxiety sensitivity</i>	\$1,030,000

2016 – 2017	Brain & Behavior Research Foundation	PI	NARSAD Young Investigator Award: <i>Examining the neural basis of interoceptive fear</i>	\$65,000
2015 – 2018	Epsom Salt Council	PI	Grant for measuring magnesium absorption via a high concentration Epsom salt bath	\$102,000
2013	California Institute of Technology	PI	Della Martin Postdoctoral Fellowship	\$42,000
2011 – 2012	University of Iowa	PI	Graduate College Dissertation Year Fellowship	\$22,000
2007 – 2010	Fraternal Order of Eagles	PI	Grant for studying the emotional life of patients with Alzheimer’s disease	\$22,500
2007 – 2010	National Science Foundation	PI	NSF Graduate Research Fellowship	\$121,500

## GRANTS UNDER REVIEW

Time Period	Funding Organization	Role	Title	Total Funds
2018 – 2021	National Center for Complementary and Integrative Health at the National Institutes of Health	PI	R34 grant for assessing feasibility of exploratory clinical trials of mind and body interventions: <i>“Investigating Floatation-REST as a novel technique for reducing anxiety and depression”</i>	\$770,000

## PRESS

- **DISCOVER MAGAZINE**  
<http://blogs.discovermagazine.com/notrocketscience/2010/04/13/amnesiacs-show-that-emotions-linger-long-after-memories-fade/>  
<http://blogs.discovermagazine.com/notrocketscience/2010/12/16/meet-the-woman-without-fear/>
- **HAARETZ**  
<http://www.haaretz.com/weekend/magazine/why-fear-is-good-for-you-1.422832>
- **HARPER’S MAGAZINE**  
<http://harpers.org/archive/2011/03/0083324>

- **NATIONAL PUBLIC RADIO (NPR)**  
<http://www.npr.org/templates/story/story.php?storyId=125869707>  
<https://www.npr.org/2010/12/17/132141793/living-without-fear>  
<http://www.npr.org/blogs/health/2013/02/01/170877971/fear>
- **NBC TODAY SHOW**  
[http://www.today.com/id/42888371/ns/today-today\\_health/t/face-blindness-leaves-mom-unable-recognize-her-own-children/42894691](http://www.today.com/id/42888371/ns/today-today_health/t/face-blindness-leaves-mom-unable-recognize-her-own-children/42894691)
- **NEW SCIENTIST (cover story for issue 2907)**  
<http://www.newscientist.com/article/mg21729071.600-the-curious-lives-of-the-people-who-feel-no-fear.html>
- **NEW YORK TIMES**  
<http://www.nytimes.com/2011/01/01/health/01care.html>  
<http://www.nytimes.com/2010/12/21/science/21obbrain.html>  
<http://www.nytimes.com/2011/01/04/science/04angier.html>
- **PSYCHOLOGY TODAY**  
<http://www.psychologytoday.com/blog/brain-food/201302/the-only-thing-she-has-fear>
- **SCIENTIFIC AMERICAN**  
<http://www.scientificamerican.com/article.cfm?id=fascinated-by-fear>  
<http://blogs.scientificamerican.com/observations/happy-or-sad-emotions-persisted-beyond-remembering-an-event-in-people-with-amnesia/>
- **TIME MAGAZINE**  
<http://healthland.time.com/2010/12/16/where-does-fear-come-from-hint-its-not-the-creepy-basement/>
- **USA TODAY**  
[http://www.usatoday.com/yourlife/health/medical/2010-12-17-findings-improve-ptsd-treatment\\_N.htm](http://www.usatoday.com/yourlife/health/medical/2010-12-17-findings-improve-ptsd-treatment_N.htm)
- **VICE**  
[https://motherboard.vice.com/en\\_us/article/vv7g5d/the-futility-of-modern-fears](https://motherboard.vice.com/en_us/article/vv7g5d/the-futility-of-modern-fears)

## FLOAT-RELATED PRESS

- **END PAIN**  
<https://www.endpain.com/stories-floating--2debbcae7aebb0d8cbf8c65400c47879d9940fa2>
- **GLOBE AND MAIL**  
<http://www.theglobeandmail.com/life/health-and-fitness/health/flotation-therapy-the-next-frontier-of-mental-health-or-a-splashy-placebo/article31201618/>
- **CBS THIS MORNING (national news)**  
<https://www.cbsnews.com/news/pay-attention-sensory-deprivation-impact-on-brain/>
- **GOOD MORNING AMERICA (ABC)**  
<http://abcnews.go.com/GMA/video/project-wellness-flotation-therapy-cure-44461733>
- **GUARDIAN**  
<https://www.theguardian.com/lifeandstyle/2016/mar/30/anxiety-sensory-deprivation-tanks-john-lilly>
- **HEALTH.COM**  
<http://www.health.com/mind-body/flotation-therapy>

- **LIVE HAPPY**  
<http://www.livehappy.com/self/floating-toward-happiness>
- **LOCAL PRESS**  
[http://www.tulsaworld.com/news/local/people-to-watch-brain-researcher-justin-feinstein-looks-to-floating/article\\_4240c319-8b93-5505-b2b7-5828423e42d8.html](http://www.tulsaworld.com/news/local/people-to-watch-brain-researcher-justin-feinstein-looks-to-floating/article_4240c319-8b93-5505-b2b7-5828423e42d8.html)  
[http://www.tulsaworld.com/news/health/tulsa-research-lab-is-floating-new-ideas-for-treating-anxiety/article\\_a33295b4-ae72-5e8e-acce-a74f7ea0cb27.html](http://www.tulsaworld.com/news/health/tulsa-research-lab-is-floating-new-ideas-for-treating-anxiety/article_a33295b4-ae72-5e8e-acce-a74f7ea0cb27.html)  
[http://www.tulsaworld.com/business/smallbusiness/q-a-with-justin-feinstein-director-at-libr-float-clinic/article\\_8c0945f6-85ae-5e09-ac3f-4b972be07e40.html](http://www.tulsaworld.com/business/smallbusiness/q-a-with-justin-feinstein-director-at-libr-float-clinic/article_8c0945f6-85ae-5e09-ac3f-4b972be07e40.html)  
[http://www.tulsaworld.com/business/technology/an-idea-that-floats-several-local-businesses-to-soon-offer/article\\_e7595aeb-9803-539b-b047-61891588c727.html](http://www.tulsaworld.com/business/technology/an-idea-that-floats-several-local-businesses-to-soon-offer/article_e7595aeb-9803-539b-b047-61891588c727.html)  
<http://www.tulsalifestylepubs.com/2016/06/27/floating-stress-away/>  
<http://www.tulsakids.com/April-2017/Can-floating-helps-teens-with-anxiety/>  
<http://www.kjrh.com/news/new-tulsa-float-boutique-helps-grow-citys-existing-floatation-research-at-the-laureate-institute>  
<http://thislandpress.com/2016/01/29/isolation-is-the-gift/>  
<http://publicradiotulsa.org/post/chat-dr-justin-feinstein-director-float-clinic-libr>
- **MEN'S HEALTH**  
<https://www.menshealth.com/health/a19547127/sensory-deprivation-tanks-floatation-therapy/>
- **NATIONAL PUBLIC RADIO (NPR)**  
<https://www.npr.org/sections/health-shots/2017/10/16/554063496/floating-away-your-anxiety-and-stress>
- **OKLAHOMA NEWS REPORT (OETA)**  
[https://www.youtube.com/watch?v=b6pu\\_WgX3v8&feature=youtu.be](https://www.youtube.com/watch?v=b6pu_WgX3v8&feature=youtu.be)
- **PSYCHOLOGY TODAY**  
<https://www.psychologytoday.com/blog/sense-time/201610/gaining-happiness-losing-yourself>
- **THE LATE SHOW WITH STEPHEN COLBERT (CBS)**  
<https://www.youtube.com/watch?v=dUUNCihcxuk&feature=youtu.be>
- **TIME MAGAZINE**  
<http://time.com/floating/>  
<http://time.com/3960510/can-float-therapy-really-treat-stress/>
- **US NEWS & WORLD REPORT**  
<http://health.usnews.com/wellness/articles/2016-08-11/should-you-try-floatation-therapy>
- **VICE**  
[https://tonic.vice.com/en\\_us/article/qvvx5w/people-with-anxiety-find-relief-in-sensory-deprivation-tanks](https://tonic.vice.com/en_us/article/qvvx5w/people-with-anxiety-find-relief-in-sensory-deprivation-tanks)