

## **Michael T. Treadway, Ph.D.**

Curriculum Vitae  
December 1<sup>st</sup>, 2018

Department of Psychology  
Emory University  
36 Eagle Row  
Atlanta, GA 30322  
Phone: 404.727.3166  
Cell: 781.392.4145  
Email: [mtreadway@emory.edu](mailto:mtreadway@emory.edu)

GA License # 003882

---

### Academic Appointments

Assistant Professor  
Department of Psychology  
Emory University

Assistant Professor  
Department of Psychiatry and Behavioral Sciences  
Emory University School of Medicine

Researcher  
Winship Cancer Institute  
Emory University School of Medicine

---

### Education & Training

2012 – 2015	Harvard Medical School/McLean Hospital, Belmont, MA <i>Instructor in Psychiatry</i>
2011 – 2012	Harvard Medical School/McLean Hospital, Belmont, MA <i>Clinical Fellow/Psychology Intern</i>
2006 – 2012	School of Arts and Sciences, Vanderbilt University, Nashville, TN <i>PhD in Clinical Science</i>
1996 – 2001	Columbia College, Columbia University, New York, NY <i>BA: Musicology, Cum Laude</i>

---

## Awards and Honors (selected)

2018	Early Career Impact Award – Federation of Associations in Behavioral and Brain Sciences (FABBS)
2016	Rising Star Award – Association for Psychological Science (APS)
2013	Young Investigator Award – Brain and Behavioral Research Foundation (BBRF) (\$60,000)
2012	Adam Corneel Young Investigator Award – McLean Hospital (\$20,000)
2012	Graduate Student Research Award – Vanderbilt University (\$500)
2010	Dissertation Award – American Psychological Association (APA) (\$1,000)
2010	Dissertation Enhancement Award – Vanderbilt University (\$2,000)
2010	Motivational Neural Networks Travel Award (\$500)
2009	Graduate Research Fellowship – APF/COGDOP (\$1,000)
2009	Trainee Abstract Award – Organization for Human Brain Mapping (\$750)
2006	University Fellowship, <i>Vanderbilt University</i>
2001	Graduated <i>cum laude</i> , <i>Columbia University</i>

---

## Extramural Funding

### **Current**

R01 MH108605 (PI: Treadway) 2016-2021  
NIH/NIMH \$2,116,136

**Title:** Dynamics of inflammation and its blockade on motivational circuitry in depression

**Summary:** This project will examine behavioral, neuroimaging, and plasma markers of motivation and inflammation in a sample of depressed patients before and after a double-blind, placebo-controlled administration of infliximab, a potent TNF-alpha antagonist.

**Role:** Principal Investigator

R00 MH102355 (PI: Treadway) 2015-2018  
NIH/NIMH \$654,195

**Title:** Stress and MDD effects on mPFC glutamate and GABA during reward processing

**Summary:** This project will use pre- and post-stress MR-Spectroscopy measures of medial prefrontal glutamate and GABA in combination with fMRI during a reward-learning paradigm to investigate the relationships between amino-acid levels, reward learning behavior and functional neuroimaging measures in healthy controls and MDD patients.

**Role:** Principal Investigator

R01 MH109637 (PI: Felger) 2016–2021  
NIH/NIMH \$2,654,980

**Title:** Inflammation effects on corticostriatal connectivity and reward: role of dopamine

**Summary:** This project will test the hypothesis that increased inflammation in depression predicts improved connectivity in reward-related brain regions after acute pharmacological challenge with levodopa.

**Role:** Co-Investigator

**Completed**

K99 MH102355 (PI: Treadway) 2013-2014

NIH/NIMH

**Title:** Stress and MDD effects on mPFC glutamate and GABA during reward processing

**Summary:** This project will use pre- and post-stress MR-Spectroscopy measures of medial prefrontal glutamate and GABA in combination with fMRI under conditions of acute stress.

**Role:** Principal Investigator

R01 MH101521 (PI: Pizzagalli) 2013-2017

NIH/NIMH

**Title:** Multi-level analysis of positive valence systems across mood disorders

**Summary:** This project will identify neurobiological markers to aid in the differentiation of unipolar and bipolar depressive symptoms across multiple units of analysis (e.g., molecules, brain circuitry, behavior).

**Role:** Co-Investigator

F31 MH087015 (PI: Treadway) 2009-2012

NIH/NIMH

**Title:** Neural mechanisms of effort-based reward in humans

**Summary:** This project will seek to validate a novel effort-expenditure task in humans using fMRI and dopaminergic receptor PET imaging with the ligand [<sup>18</sup>F] fallypride.

**Role:** Principal Investigator

### Training Grants and Trainee Fellowships

F32 MH1159692 (PI: Cooper) 2018-2021

**Title:** Motivational anhedonia: neurocomputational mechanisms and temporal dynamics

**Role:** Primary mentor

K23 MH114037 (PI: Goldsmith) 2018-2023

**Title:** Impact of inflammation on reward circuits, motivational deficits and negative symptoms in schizophrenia.

**Role:** Secondary mentor

T32 HD071846 (PI: Bauer)

**Title:** Mechanisms of learning across development and species

2018-2022

**Role:** Training faculty

F31 MH113275 (PI: Culbreth) 2017-2019

**Title:** Cognitive effort avoidance in psychotic disorders

**Role:** External consultant

DGE-1444932 (PI: Arulpragasam) 2016-2019

**Title:** NSF graduate research fellowship

**Role:** Primary mentor

R25 MH101079 (PI: Miller)

2015–2020

**Title:** Emory psychiatry clinical scientist training program**Role:** Research track training director / key personnel

## Peer-Reviewed Publications

### Publication Metrics (as of December 1<sup>st</sup> 2018)

Total Google Scholar Citations: **6,003**Google Scholar h-index: **28**Google Scholar i10-index: **37**NIH mean Relative Citation Ratio: **4.85**(40% of my publications have citation rates at or above the field-normalized 90<sup>th</sup> percentile)

### Designation of Trainee Co-Authors

<sup>g</sup> = Graduate Trainee; <sup>p</sup> = Post-Doctoral Trainee; <sup>s</sup> = Staff Member Trainee; <sup>u</sup> = Undergraduate Trainee; <sup>j</sup> = Junior Faculty Trainee

\* = Equal authorship contribution.

1. Belleau, E.L., **Treadway, M.T.**, Pizzagalli, D.A. (in press). The impact of stress and major depression on hippocampal and medial prefrontal cortex morphology. *Biological Psychiatry*
2. Arulpragasam, A.R.,<sup>g</sup> Cooper, J.A.,<sup>p</sup> Nuutinen, M.R.,<sup>s</sup> **Treadway, M.T.** (2018). Corticoinsular circuits encode subjective value expectation and violation for effortful goal-directed behavior. *Proceedings of the National Academy of Sciences*, epub May 14, 1-10.
3. Sevinc, G., Holzel, B.K., Hashmi, J., Greenberg, J., McCallister, A., **Treadway M.**, Schneider, M.L., Dusek, J.A., Carmody, J., Lazar S.W. (in press). Common and dissociable neural activity following mindfulness-based stress reduction and relaxation response programs. *Psychosomatic Medicine*.
4. Cooper, J.A.,<sup>p</sup> Arulpragasam, A.R.,<sup>g</sup> **Treadway, M.T.** (2018). The neurobiology of anhedonia in depression: markers, mechanisms and computational models. *Current Opinion in Behavioral Sciences* 22, 128-135.
5. Wadsworth, L.P., Forgeard, M., Hsu, K.J., Kertz, S., **Treadway, M.T.**, Bjorgvinsson, T. (2018). Examining the role of repetitive negative thinking in relations between positive and negative aspects of self-compassion and symptom improvement during intensive treatment. *Cognitive Therapy and Research* 42, 236-249.
6. Fulford, D., **Treadway, M.T.**, Woolley, J. (2018). Social motivation in schizophrenia: the impact of oxytocin on vigor in the context of social and non-social reinforcement. *Journal of Abnormal Psychology* 127, 116-128.

7. Kaiser, R.H., **Treadway, M.T.**, Wooten, D.W., Kumar, P., Goer, F., Murray, L.M., Beltzer, M., Pechtel, P., Whitton, A., Cohen, A.L., Alpert, N.M., El Fakhri, G., Normandin, M.D., Pizzagalli, D.A. (2017). Dopamine transporter mechanisms of individual differences in corticostriatal learning networks. *Cerebral Cortex*, epub Oct 31<sup>st</sup>, 1-10.
8. Johnson, S.L. Swerdlow, B.A., **Treadway M.T.**, Tharp, J.A., Carver, C.S. (2017). Willingness to expend effort toward reward and extreme ambitions in bipolar disorder. *Clinical Psychological Science* 5, 943-951.
9. Mata, F., **Treadway, M.T.**, Kwok, A., Truby H., Yucel M., Stout, J.C., Verdejo-Garcia, A. (2017). Less willingness to expend effort for reward differentiates obesity and overweight and predicts attrition in a weight loss intervention. *Obesity* 25, 1676-1681.
10. **Treadway, M.T.**,\* Admon, R.\* , Arulpragasam, A.R.,<sup>§</sup> Mehta, M.M., Douglas, S., Vitaliano, G., Olson, D.O., Cooper, J.A.,<sup>P</sup> Pizzagalli, D.A. (2017). Association between interleukin-6 and striatal prediction-error signals following acute stress in healthy female participants. *Biological Psychiatry* 82, 570-577.
11. Admon, R.,\* **Treadway, M.T.**,\* Valeri, L., Mehta, M., Douglas, S., Pizzagalli, D.A. (2017). Distinct trajectories of cortisol response to prolonged acute stress are linked to affective responses and hippocampal gray matter volume in healthy females. *Journal of Neuroscience* 37, 7994-8002.
12. Mosner, M.G., Kinard, J.L., McWeeny, S., Shah, J.S., Markiewicz, N.D., Damiano-Goodwin, C.R., Burchinal, M.R., Rutherford, H.J.V., Greene, R.K., **Treadway, M.T.**, Dichter, G.S. (2017). Vicarious effort-based decision-making in autism spectrum disorders. *Journal of Autism and Developmental Disorders* 47, 2992-3006.
13. Fang, A., **Treadway, M.T.**, Hofmann, S.G., (2017). Working hard for oneself or others: effects of oxytocin on reward motivation in social anxiety disorder. *Biological Psychology* 127, 157-162.
14. Zald, D.H., **Treadway, M.T.** (2017). Reward processing, neuroeconomics and psychopathology. *Annual Review of Clinical Psychology* 13, 471-495.
15. Felger, J., **Treadway, M.T.** (2017). Inflammation effects on motivation and psychomotor slowing: the role of dopamine. *Neuropsychopharmacology* 42, 216-241.
16. Lasselin, J., **Treadway, M.T.**, Lacourt, T.E., Soop, A., Olsson, M.J., Karshikoff, B., Paues-Goranson, S., Axelsson, J., Dantzer, R., Lekander, M. (2016). Lipopolysaccharide alters motivated behavior in a monetary reward task: a randomized trial. *Neuropsychopharmacology* 42, 801-810.

17. Beard, C., Millner, A., Hsu, K., Forgeard, M., **Treadway, M.T.**, Leonard, C.V.<sup>s</sup>, Kertz, S., Bjorvgvinsson, T. (2016). Network analysis of depression and anxiety symptoms in a heterogeneous psychiatric sample. *Psychological Medicine* 46, 3359-3369.
18. **Treadway, M.T.**, Leonard, C.V.<sup>s</sup> (2016). Isolating biomarkers for affective states: implications of affective chronometry. *Molecular Psychiatry* 21, 1180-1187.
19. Goldsmith, D.G.,<sup>j</sup> Haroon, E., Woolwine, B.J., Jung, M.Y., Wommack, E.C., Harvey, P.D., **Treadway, M.T.**, Felger, J.C., Miller, A.H. (2016). Inflammatory markers are associated with decreased psychomotor speed in patients with major depressive disorder. *Brain Behavior Immunity* 56, 281-288.
20. Lilienfeld, S.O., **Treadway, M.T.** (2016). Clashing diagnostic approaches: DSM-ICD versus RDoC. *Annual Review Clinical Psychology* 12, 435-463.
21. McCarthy, J.M., **Treadway, M.T.**, Blanchard, J.J. (2016). Inefficient effort allocation and negative symptoms in schizophrenia. *Schizophrenia Research* 170, 278-284.
22. Buckholtz, J.W., Martin, J.W., **Treadway, M.T.**, Jan, K., Zald, D.H., Jones, O.D., Marois, R. (2015). From blame to punishment: disrupting prefrontal cortex reveals third-party norm enforcement mechanisms. *Neuron* 87, 1369-1380.
23. Reddy, L.F., Horan, W.P., Barch, D., Buchanan, R., Dunayevich, E., Gold, J., Lyons, N., **Treadway, M.T.**, Wynn, J.K. Young, J., Green, M.F. (2015). Effort-based decision making paradigms for clinical trials in schizophrenia: part 1 – psychometric characteristics of five paradigms. *Schizophrenia Bulletin* 41, 1045-1054.
24. McCarthy, J.M., **Treadway, M.T.**, Blanchard, J.J. (2015). Motivation and effort in individuals with social anhedonia. *Schizophrenia Research* 165, 70-75.
25. Geany, J.T., **Treadway, M.T.**, Smillie, L.D. (2015). Trait anticipatory pleasure predicts effort expenditure for rewards. *PLoSOne* 10, e0131357.
26. Gilman, J.M., **Treadway, M.T.**, Curran, M.T., Calderon, V., Evins, A.E. (2015). Effect of social influence on effort-allocation for monetary rewards. *PLoSOne* 10, e0126656.
27. Anand, D., Oehlberg, K.A., **Treadway, M.T.**, Nusslock, R. (2015). Effect of failure/success feedback and the moderating influence of personality on reward motivation. *Cognition and Emotion* 30, 458-471.
28. Kumar P., Slavich G.M., Berghorst L.H., **Treadway M.T.**, Brooks, N.H., Dutra S.J., Greve, D.N., O'Donovan, A., Bleil, M.E., Maninger, N., Pizzagalli, D.A. (2015). Perceived life stress exposure modulates reward-related medial prefrontal cortex responses to acute stress in depression. *Journal of Affective Disorders* 180, 104-111.

29. **Treadway, M.T.**, Waskom, M.L., Dillon, D.G., Holmes, A.J., Park, M.T.M., Chakravarty, M.M., Dutra, S.J., Polli, F.E., Iosifescu, D.V., Fava, M., Gabrieli, J.D.E., Pizzagalli, D.A. (2015). Illness progression, recent stress and morphometry of hippocampal subfields and medial prefrontal cortex in major depression. *Biological Psychiatry* 77, 285-294.
30. Whitton, A.E., **Treadway, M.T.**, Pizzagalli, D.A. (2015). Reward processing dysfunction in major depression, bipolar disorder and schizophrenia. *Current Opinion in Psychiatry* 28, 7-12.
31. **Treadway, M.T.**, Peterman, J.S., Zald, D.H., Park, S. (2015). Impaired effort allocation in patients with schizophrenia. *Schizophrenia Research* 161, 382-385.
32. **Treadway, M.T.**,\* Buckholtz, J.W.,\* Martin, J.M., Jan, K., Asplund, C.L., Ginther, M.R., Jones, O.D., Marois, R. (2014). Corticolimbic gating of emotion driven punishment. *Nature Neuroscience* 17, 1270-1275.
33. Barch, D.M., **Treadway, M.T.**, Schoen, N. (2014). Effort, anhedonia and function in schizophrenia: reduced effort allocation predicts amotivation and functional impairment. *Journal of Abnormal Psychology* 123(2), 387-397.
34. **Treadway, M. T.**, Pizzagalli, D.A. (2014). Imaging the pathophysiology of major depressive disorder: from localist models to circuit-based analysis. *Biology of Mood and Anxiety Disorders* 4, 5.
35. **Treadway, M. T.**, Zald, D. H. (2013). Parsing anhedonia: translational models of reward-processing deficits in psychopathology. *Current Directions in Psychological Science* 22, 244-249.
36. **Treadway, M.T.**, Buckholtz, J.W, Zald, D.H. (2013). Perceived stress predicts altered reward feedback processing in medial prefrontal cortex. *Frontiers in Human Neuroscience*, 7.
37. Samanez-Larkin, G.R., Buckholtz, J.W., Cowan, R.C., Woodward, N.D., Li, R., Ansari, S., Arrington, C.M., Baldwin, R.M., Smith, C.E., **Treadway, M. T.**, Kessler, R.M., Zald, D.H. (2012). A thalamocortico-striatal dopamine circuit for psychostimulant-enhanced human cognitive flexibility. *Biological Psychiatry* 74, 99-105.
38. **Treadway, M.T.**, Bossaller, N.A., Shelton, R.C., Zald, D.H. (2012). Effort-based decision-making in major depressive disorder: a translational model of motivational anhedonia. *Journal of Abnormal Psychology* 121, 553-558.
39. Wardle, M.C., **Treadway, M.T.**, de Wit, H. (2012) Caffeine increases psychomotor performance on the effort expenditure for rewards task. *Pharmacology, Biochemistry and Behavior* 102, 526-531.
40. Damiano, C., Aloï, J., **Treadway, M. T.**, Bodfish, J.W., Dichter, G.S. (2012). Adults with autism spectrum disorders exhibit decreased sensitivity to reward parameters when making effort-based decisions. *Journal of Neurodevelopmental Disorders* 4, 13.

41. **Treadway, M.T.**,\* Buckholtz, J.W.,\* Cowan, R.C., Woodward, N.D., Li, R., Ansari, S., Baldwin, R.M., Schwartzman, A.N., Shelby, E.S., Smith, C.E., Kessler, R. M., Zald, D.H. (2012). Dopaminergic mechanisms of individual differences in human effort-based decision-making. *Journal of Neuroscience* 32, 6170-6176.
42. Wardle, M.C., **Treadway, M.T.**, Mayo, L.M., Zald, D.H., de Wit, H. (2011). Amping up effort: effects of d-amphetamine on human effort-based decision-making. *Journal of Neuroscience* 31, 16597-16602.
43. McGinty, V.B., Hayden, B.Y., Heilbronner, S.R., Dumont, E.C., Graves, S.M., Mirrione, M.M., du Hoffman, J., Sartor, G.C., España, R.A., Millan, E.Z., Difeliceantonio, A.G., Marchant, N.J., Napier, T.C., Root, D.H., Borgland, S.L., **Treadway, M.T.**, Floresco, S.B., McGinty, J.F., Haber S. (2011). Emerging, reemerging, and forgotten brain areas of the reward circuit: notes from the 2010 motivational and neural networks conference. *Behavioural Brain Research* 225, 348-357.
44. **Treadway, M. T.**, & Buckholtz, J.W. (2011). On the use and misuse of genomic and neuroimaging science in forensic psychiatry: current roles and future directions. *Child and Adolescent Psychiatric Clinics of North America* 20, 533-546.
45. **Treadway, M. T.**, & Zald, D. H. (2011). Reconsidering anhedonia in depression: lessons from translational neuroscience. *Neuroscience & Biobehavioral Reviews* 35, 537-555.
46. Buckholtz, J.W.,\* **Treadway, M.T.**,\* Cowan, R.C., Woodward, N.D., Li, R., Ansari, S., Baldwin, R.M., Schwartzman, A.N., Shelby, E.S., Smith, C.E., Kessler, R. M., Zald, D.H. (2010). Dopaminergic network mechanisms for differences in human impulsivity. *Science* 329, 532.
47. Buckholtz, J.W., **Treadway, M.T.**, Cowan, R.L., Woodward, N.D., Benning, S.D., Li, R., Ansari, M.S., Baldwin, R.M., Schwartzman, A.N., Shelby, E.S., Smith, C.E., Cole, D., Kessler, R.M., Zald, D.H. (2010). Mesolimbic dopamine reward system hypersensitivity in individuals with psychopathic traits. *Nature Neuroscience* 13, 419-421.
48. **Treadway, M. T.**, Buckholtz, J.W., Lambert, W.E., Schwartzman, A.N., Zald, D.H. (2009). Worth the 'EEfRT?' The effort expenditure for rewards task as an objective measure of motivation and anhedonia. *PLoS One* 4, e6598.
49. **Treadway, M. T.**, Grant, M.M., Ding, Z., Hollon, S.D., Gore, J.C., Shelton, R.C. (2009). Early adverse events, HPA activity and anterior cingulate volume in MDD. *PLoS One* 4, e4887.
50. Lazar, S.W., Kerr, C., Wasserman, R.J., Gray, J.R., Greve, D., **Treadway, M.T.**, McGarvey, M., Quinn, B.T., Dusek, J.A., Benson, H.G., Rausch, S.L., Moore, C.I., Fischel, B. (2005). Meditation experience is associated with increased cortical thickness. *Neuroreport* 16, 1893-1897.

---

## Manuscripts Under Review or In Preparation

51. Cooper, J.C.,<sup>p</sup> DeVries B.A.,<sup>s</sup> Cole, D.,<sup>s</sup> Martin, J.W., Tennyson, R.L., Shelton, R.C., Zald, D.H., **Treadway, M.T.** (submitted). Blunted striatal signals during effort based decision-making in major depression.
52. **Treadway, M.T.**, Cooper, J.A.,<sup>p</sup> Nuutinen, M.<sup>s</sup> Barrick, E.M., Cole, D.C.,<sup>s</sup> Leonard, C.V.,<sup>s</sup> Ongur, D., Jensen, J.E., Pizzagalli, D.A. (submitted). Chronic stress modulates effects of acute stress on medial prefrontal neurochemistry and function during avoidance learning.
53. Cooper, J.A.,<sup>p</sup> Barch, D.M., Reddy, F.L., Horan, W.P., Green, M.F., **Treadway, M.T.** (submitted). Effortful goal-directed behavior in schizophrenia: computational subtypes and associations with cognition.
54. Hossein, S.,<sup>g</sup> **Treadway, M.T.** (submitted). Centering centrality: an examination of theoretical assumptions fro centrality indices in network models of psychopathology.
55. Hossein, S.,<sup>g</sup> **Treadway, M.T.**, Chen, Y., (in preparation). Inferring temporal symptom networks from cross-sectional data: an assessment of conceptual limitations.
56. **Treadway, M.T.**, Cooper, J.A.,<sup>g</sup> Miller, A.H. (submitted). Can't or won't? Immunometabolic constraints on dopamine and desire.

---

## Book Chapters

1. **Treadway, M.T.** (2015). The neurobiology of motivational deficits in depression: an update on candidate mechanisms. In Balsam & Simpson (Eds).
2. **Treadway, M.T.** (2015). Liking little, wanting less: On (lacking) desire in psychopathology. In Hofmann and Nordgren (Eds). *The Psychology of Desire*. The Guilford Press: New York, NY.
3. **Treadway, M.T.** Teer, A.P.,<sup>g</sup> Zald, D.H. (in press). Parsing Anhedonia. Neurobiological substrates of reward processing in depression. In Mishara, Corlett, Fletcher, and Schwartz (Eds.) *Phenomenological Neuropsychiatry: Bridging the Clinic and Clinical Neuroscience*. Springer Press: New York, NY
4. **Treadway, M.T.** (2014). Personality disorders and the brain: emerging insights from clinical neuroscience. In Beck, Davis and Freeman (Eds). *Cognitive Therapy for Personality Disorders*, 3<sup>rd</sup> edition. The Guilford Press: New York, NY.
5. **Treadway, M.T.**, Zald, D. H. (2014). Translational neuroscience perspectives on anhedonia in depression. In Ritsner (Ed.) *Anhedonia: A New Insight*. Springer Press, New York, NY.

6. Pizzagalli, D. A., **Treadway, M.T.** (2014). The neuroscience of depression: a neuroimaging perspective. In Gotlib and Hammen (Eds). *Handbook of Depression, 3<sup>rd</sup> edition*. The Guilford Press: New York, NY.
7. **Treadway, M.T.**, Lazar, S.W. (2010). Mindfulness and Neuroplasticity. In Baer R. (Ed). *Assessing Mindfulness and Acceptance: Illuminating the Processes of Change*. New Harbinger: Oakland, CA.
8. **Treadway, M.T.**, Lazar, S.W. (2008). The Neurobiology of mindfulness. In Didonna, F. (Ed). *Clinical Handbook of Mindfulness*. Springer Press: New York, NY

---

### Other Publications and Popular Media

Treadway, D.C., **Treadway, M.T.** (2013) Study Guide for Quiet, by Susan Cain. Guilford Press, New York, NY 2013

Treadway, D.C., Treadway, K.K, **Treadway, M.T.**, Treadway, S.C. (2010). Home before dark: A family portrait of cancer and healing. Union Square Press, New York, NY.

**Treadway, M.T.** (2008). The ride home. *Psychotherapy Networker*, 32(2), 88.

---

### Invited Talks

- 2018 Clinical Brownbag Lecture Series, Georgia State University, Atlanta, GA
- 2017 BrainHealth Lecture Series, University of Texas at Dallas, Dallas TX
- 2017 Grand Rounds, Emory Department of Psychiatry, Atlanta, GA
- 2017 Psychoneuroendocrinology Colloquium Series, UCLA Cousins Center, Los Angeles, CA
- 2016 Winship Cancer Center Annual Retreat, Atlanta, GA
- 2016 Cognitive Neuroscience Center Seminar, University of Illinois – Chicago, Chicago, IL
- 2016 Clinical Brownbag, Northwestern University, Evanston, IL
- 2016 Emory University, Department of Psychology, Cognition and Development Colloquium
- 2013 Massachusetts General Hospital, Center for Addiction Medicine, Grand Rounds
- 2013 Emory University, Department of Psychology
- 2013 University of Miami, Department of Psychology
- 2013 Temple University, Department of Psychology
- 2013 University of Colorado Boulder, Department of Psychology
- 2012 University of Maryland, Department of Psychology
- 2012 Yale University, Department of Psychology
- 2012 Boston University, Department of Psychology
- 2012 Columbia University, Department of Psychology, Cognitive Neuroscience Series
- 2012 Harvard University, Department of Psychology, Clinical Colloquium
- 2012 Harvard Medical School, Department of Psychiatry, CDASR speaker series
- 2012 University of Wisconsin-Madison, Department of Psychology
- 2011 Harvard University, Department of Psychology, Decision-Making Series

- 2011 University of Connecticut, Department of Psychology, Behavioral Neuroscience Seminar  
 2011 Vanderbilt University, Department of Psychology, Clinical Science Seminar

---

### Organized Symposia and Conference Presentations

- 2019 Symposium Speaker, Smokies Cognition and Neuroscience Symposium, Asheville, NC  
 2018 Symposium Speaker, *Society for Research in Psychopathology*, Indianapolis, IN  
 2018 Symposium Speaker, *Association for Psychological Science*, San Francisco, CA  
 2017 Symposium Speaker, *American College of Neuropsychopharmacology*, Palm Desert, CA  
 2017 Symposium Speaker, *Society for Research in Psychopathology*, Denver, CO  
 2017 Presenter, Transcontinental Working Group in Computational Psychiatry, online  
 2016 Clinical Roundtable Member, *Society for Neuroscience*, San Diego, CA  
 2016 Symposium Speaker, *Association of Behavioral and Cognitive Therapy*, New York, NY  
 2016 Presenter, Winship Cancer Center Annual Retreat, Atlanta, GA  
 2016 Symposium Speaker, *Society for Biological Psychiatry*, Atlanta, GA  
 2016 Symposium Speaker, *Society for Affective Science*, Chicago, IL  
 2016 Symposium Speaker, *International Neuropsychological Society*, Boston, MA  
 2016 Symposium Speaker, Neurotoxicities and Cancer Treatment, Houston TX  
 2015 Symposium Speaker, *American College of Neuropsychopharmacology*, Hollywood, FL  
 2015 Symposium Speaker, *Association of Behavioral and Cognitive Therapy*, Chicago, IL  
 2015 Symposium Discussant, *Association for Behavioral and Cognitive Therapy*, Chicago, IL  
 2015 Symposium Co-Chair and Speaker *Society for Psychopathology Research*,  
 New Orleans, LA  
 2015 Rising Stars of Clinical Science Symposium Speaker, *Association for Psychological Science*, New York, NY  
 2015 Symposium Co-Chair and Speaker, *Society for Biological Psychiatry*, Toronto, CA  
 2014 Symposium Speaker, *Association for Psychological Science*, San Francisco, CA  
 2013 Symposium Speaker, *Society for Psychopathology Research*, Oakland, CA  
 2013 Symposium Moderator, *Organization for Human Brain Mapping*  
 2013 Symposium Speaker, *Congresso Dopamine*, Sardinia, Italy

---

### Conference Presentations and Published Abstracts (Last 5 Years)

#### Designation of Trainee Co-Authors

<sup>g</sup> = Graduate Trainee; <sup>p</sup> = Post-Doctoral Trainee; <sup>s</sup> = Staff Member Trainee; <sup>u</sup> = Undergraduate Trainee; <sup>j</sup> = Junior Faculty Trainee

1. Cooper, J.A., <sup>p</sup> DeVries, B.A., <sup>s</sup> Zald, D.H., **Treadway, M.T.** (2018). Neural, behavioral and computational effects of effort discounting and fatigue in major depression. Poster presentation at the annual meeting of the *Society for Neuroeconomics*. Philadelphia, PA.
2. Arulpragasam A.R., <sup>g</sup> Cooper, J.A., <sup>p</sup> Nuutinen M.R., <sup>s</sup> DeVries, B.A., <sup>s</sup> Kwok K.S., <sup>u</sup> **Treadway, M.T.** (2018). Dorsal anterior cingulate cortex encodes strategy updating in

effort-based decision-making. Oral presentation at the annual meeting of the *Society for Neuroeconomics*. Philadelphia, PA.

3. Cooper, J.A.,<sup>p</sup> **Treadway, M.T.** (2018). Computational models of effort-based choice in patients with major depression and schizophrenia. Oral presentation at the annual meeting of the *Society of Biological Psychiatry*. New York, NY.
4. Hossein, S.,<sup>g</sup> **Treadway, M.T.** (2018). Inferring temporal symptom networks from cross-sectional data: an assessment of conceptual limitations. Poster presented at the annual meeting of the *Association for Psychological Science*. San Francisco, CA.
5. Arulpragasam A.R.,<sup>g</sup> **Treadway, M.T.** (2017). A distributed neural network of choice encoding during effort-based decision-making. Oral presentation at the annual meeting of the *Association for Behavioral and Cognitive Therapies*. San Diego, CA.
6. Arulpragasam A.R.,<sup>g</sup> Cooper J.A.,<sup>p</sup> **Treadway MT.** (2017). Value updating and encoding in distinct subregions of dACC during effort-based decision-making. Poster presented at the annual meeting of the *Society for Neuroeconomics*. Toronto, Canada.
7. Arulpragasam A.R.,<sup>g</sup> Cooper J.A.,<sup>p</sup> Cole D.J.,<sup>s</sup> **Treadway M.T.** (2017). Sequential framing in effort-based decision-making: behavioral and neuroimaging evidence. Poster presented at the annual meeting of the *Society for Research in Psychopathology*. Denver, CO.
8. Cooper, J.A.,<sup>p</sup> Zald, D.H., **Treadway, M.T.** (2017). Parameterizing effort sensitivity: computational modeling of the effort expenditure for rewards task. Poster presented at the annual meeting of the Society for Research in Psychopathology. Denver, CO.
9. Hossein, S.,<sup>g</sup> **Treadway, M.T.** (2017). Formal definitions of centrality in psychopathology networks. Poster presented at the annual meeting of the Society for Research in Psychopathology. Denver, CO.
10. Cooper, J.A.,<sup>p</sup> Zald, D.H., **Treadway, M.T.** (2017). Computational modeling of the effort expenditure for rewards task. Poster presented at the annual meeting of the Society for Neuroeconomics. Toronto, Canada.
11. Teer, A.P.,<sup>g</sup> Leonard, C.V.,<sup>s</sup> Irfan, N.,<sup>u</sup> Airey, M.L.,<sup>u</sup> **Treadway, M.T.** (2016). Investigating a novel implicit measurement of self-perception. Poster presentation at the annual meeting of the Society for Neuroscience, San Diego, CA.
12. Arulpragasam, A.R.,<sup>g</sup> Cole, D.C.,<sup>s</sup> Irfan, N.,<sup>u</sup> **Treadway, M.T.** (2016). A distributed network of cost encoding during effort-based decision-making. Poster presentation at the annual meeting of the *Society for Neuroscience*, San Diego, CA.
13. Arulpragasam, A.R.,<sup>g</sup> **Treadway, M.T.**, Admon, R., Mehta, M., Douglas, S., Vitaliano, G.D., Olson, D.P., Pizzagalli, D.A. (2016). The effects of acute stress on prediction error signaling

in the nucleus accumbens during reinforcement learning. Poster presentation at the *Society for Biological Psychiatry*, Atlanta, GA.

14. Teer, A.P.,<sup>§</sup> Cole, D.,<sup>§</sup> Ritschel, L., Ramirez, C., **Treadway, M.T.**, Craighead, W.E. (2016). Cingulate and insular responses to reward feedback in depressed adolescents. Poster presentation at the *Society for Biological Psychiatry*, Atlanta, GA.
15. Mosner, M. G., Kinard, J., McWeeny, S., Damiano, C.R., Burchinal, M.R., Rutherford, H.J.V., **Treadway, M.T.**, Dichter, G.S. (2016). Effort-based decision-making in adolescents with autism spectrum disorders. International Meeting for Autism Research, Baltimore, Maryland.
16. **Treadway, M.T.**, Admon, R., Douglas, S., Vitaliano, G., Olson, D.P. Pizzagalli, D.A., (2014). Neural mechanisms for stress-mediated shift in reward-punishment learning. Poster presentation at the annual meeting of *Cognitive Neuroscience Society*, Boston, MA.
17. Barch, D.M., **Treadway, M.T.**, Schoen, N., Dowd, E. (2014). Effort, motivation and reward learning in schizophrenia: relationships to amotivation and functional impairment. Poster presentation at the biennial meeting of the Schizophrenia International Research Society, Florence, Italy.
18. **Treadway, M.T.**, Waskom, B.A., Dillon, D.G. Holmes, A.J., Dutra, S.J., Polli, F.E., Iosifescu, D.V., Fava, M.D., Gabrieli, J.D.E., Pizzagalli, D.A. (2013). Illness progression, recent stress and morphometry of medial prefrontal cortex and hippocampus in major depression. Poster presentation at the annual meeting of *Society for Psychopathology Research*, Oakland, CA.
19. **Treadway, M.T.**, Buckholtz, J.W., Martin, J.W., Jan, K., Asplund, C.L. Jones, O.D., Marois, R. (2013). Intent perceptions gate the effect of emotion punishment decisions through corticolimbic circuits. *Society for Cognitive Neuroscience*, San Francisco, CA.
20. Arteaga, D.F., Samanez-Larkin, G.R., Buckholtz, J.W., **Treadway, M.T.**, Zald, D.H. (2013). Decoding the anticipation of monetary rewards: a multivariate pattern analysis. *Society for Cognitive Neuroscience*, San Francisco, CA.

---

## Student Teaching

### Undergraduate Courses Taught

PSY 210 (Fall 2016) Abnormal Psychology – revamped and taught course (enrollment = 78)

PSY 385 (Fall 2016) Advanced Topics Seminar: Conceptual Foundations of Neurobiology and Neuroimaging – co-developed and co-taught with Danny Dilks, PhD (enrollment = 15)

PSY 210 (Spring 2018) Abnormal Psychology – taught course (enrollment = 117)

PSY 385 (Spring 2018) Advanced Topics Seminar: Computational Psychiatry – developed and taught course (enrollment = 11)

#### Graduate Courses Taught

PSY 385 (Fall 2015) Conceptual Foundations of Neurobiology and Neuroimaging – Course co-developed and co-taught with Danny Dilks, PhD (enrollment = 16)

#### Guest Lectures and Partial Courses Taught

2015 (Spring) The Nature of Evidence – Guest Lecture for Irwin Waldman, PhD  
 2016 (Spring) Cognitive Neuroscience – Guest Lecture for Danny Dilks, PhD  
 2016 (Spring) Computational Neuroscience – Guest Lecture for Dieter Jaeger, PhD  
 2016 (Spring) Particle to Professor Series (Emory SOM) – Guest Lecture for David Goldsmith  
 2016 (Fall) Science and the nature of evidence – Guest Lecture for Arri Eisen, PhD  
 2017 (Fall) Nature of Evidence – Guest Lecture for Irwin Waldman, PhD  
 2017 (Fall) Psychopathology – Guest Lecture for Ed Craighead, PhD  
 2018 (Spring) Computational Neuroscience – Guest Lecture for Dieter Jaeger, PhD  
 2018 (Fall) Nature of Evidence – Guest Lecture for Irwin Waldman, PhD  
 2018 (Fall) Neuroscience (SOM) – Guest Lecture for Rickey Gillespie, MD/PhD

---

### Mentoring & Advising

#### *Post-Doctoral/Junior Faculty Advisees:*

Jessica Cooper, PhD (primary)  
 David Goldsmith, MD (secondary)  
 Rachel Hershenberg, PhD (secondary)

#### *Graduate Student Advisees:*

Andrew Teer, MA (primary)  
 Amanda Arulpragasam, MA (primary)  
 Shabnam Hossein, PhD (primary)  
 Alex Denker, MA (secondary)  
 Victoria Lawlor, BS (primary)  
 Shosuke Suzuki, BS (primary)

#### *First Year Advisory Committees/Masters Committees*

Brett Murphy, JD (2015-2016)  
 Bryan Klapes, BS (2015-2016)  
 Shaquille Edwards, BS (2015-2016)  
 Kristina Dahlgren, BA (2017-2018)  
 Roberto España, BA (2017-present)  
 Shauna Bowles, BA (2017-present)

#### *Dissertation Committees:*

Katy Renfro, PhD – Psychology, Emory University

Amanda Brown, PhD – Clinical Psychology, Emory University  
Sarah Smith, PhD – Clinical Psychology, Emory University  
Ashley Watts, PhD – Psychology, Emory University  
Brooke Reidy, PhD – Clinical Psychology, Emory University  
Andrew Persichetti, PhD – Psychology, Emory University  
Frederick Kamps, MA – Psychology, Emory University  
Cassie Hendrix, MA – Clinical Psychology, Emory University  
Vlad Ayzenberg, MA – Psychology, Emory University  
Hannah Simon, MA – Clinical Psychology, Emory University  
Alyndie Wood, MS – Neuroscience, Emory University  
April Ratliff, MS – Neuroscience, Emory University

*Staff Advisees:*

Daniel Cole, BS (2014-2016)  
Chelsea Leonard, BS (2014-2017)  
Asim Lal, BS (2016-2017)  
Nadia Irfan, BS (2016-2018)  
Melissa Letzer, BS (2017-2018)  
Brittany DeVries, BS (2017-present)  
Makiah Nuutinen, BS (2017-present)  
Emma Hahn, BA (2018- present)  
Danielle Harrison, BA (2018-present)

*Undergraduate Research Assistant Advisees:*

Meg Airely, BA (2015-2016)  
Mark Gorman, BA (2015- 2016)  
Nadia Irfan, BS (2015-2016)  
Shermin Punjwani, BA (2015)  
Brian Shim, BS (2015-2016)  
Anneka Soenstrom, BA (2016)  
Annabel Lu, (2016- present)  
Mihir Ghetiya, (2016 - 2018)\*\*  
Ila Gautham, BA (2016- 2018)  
Emily Mathis, BA, (2017)  
Emily Seigel, BA (2017- 2018)  
Isha Kumar, BA (2017 - 2018)  
Mallory Warman, BA (2017 - 2018)  
Maryam Reyman (2017 - present)  
Jeffrey Yang (2018 - present)  
Samuel Han (2018 - present)  
Kristi Kwok (2018 - present)  
Nimra Ahad (2018 – present)\*\*

\*\*Indicates SIRE/SURE program grantee

*Undergraduate Honors Advisees:*

TJ Libecap (2016; reader)  
 Heejae Choi, BS (2016-2017; primary mentor)  
 Kaella Kutchioua, BS (2018; reader)

## Service

*Psychology Department – Emory University*

2015–2018: Chair, Web & IT Committee  
 2015–2018: Member, Colloquium Committee  
 2016–2018: Member, Department Organization and Vision Committee  
 2016 Organizer, 2016 Clinical Research Day  
 2016 Poster context judge – CMBC Emotions Conference  
 2016 Organizer, 2016 Departmental Research Festival  
 2017 Member, Search Committee for “Mechanisms of Cognition”  
 faculty search.

*College of Arts and Sciences – Emory University*

Sep, 2015 Invited speaker for Emory College Alumni Board Meeting  
 Sep, 2016–Present: Faculty mentor for Emory MORE diversity outreach program  
 May, 2016 Invited speaker for Regional Emory College Alumni Board  
 Meeting, New York, NY  
 April, 2017 Invited speaker for Emory College Office of Admissions Faculty  
 Showcase  
 April, 2018 Invited speaker for Emory College Office of Admissions Faculty  
 Showcase  
 May, 2018 Invited speaker for Emory College Alumni Office “Dean’s  
 Peachtree Series”  
 October, 2018 Invited speaker for Regional Emory College Alumni Board  
 Meeting, Philadelphia, PA

*Laney Graduate School – Emory University*

2016–2017: Member, selection committee for Woodruff fellowships  
 2017–Present: Member, selection committee for Teaching Fellowships  
 2018–Present: Faculty mentor, Teaching Assistant Training and Teaching  
 Opportunity (TATTO)

*School Of Medicine – Emory University*

2015–Present: Program Director, Residency Research Training Track  
 2015–Present: Member, Psychiatry Residency Application Review Committee

*University Service – Emory University*

2017–Present: Member, IRB Social Behavioral Research Committee  
 2017–Present: Member, CRN Scientific Advisory Committee

2017–Present: Ad-Hoc Reviewer, University Research Committee

#### External Service

2011: NIMH RDoC Positive Valence Systems Working Group  
 2016: NIMH RDoC Positive Valence Systems Task Group

#### Clinical Appointments

2015 – Present Licensed Clinical Psychologist in Private Practice  
 GA License # 003882

2014 – 2015 Practicum Supervisor  
 McLean Hospital/Harvard Medical School  
 Behavioral Health Partial Program

#### Professional Activities

##### *Ad Hoc Grant Review:*

NIH (US) Review Panel ZRG1 BDCN 02  
 Wellcome Trust (UK)  
 Medical Research Council (UK)  
 Royal Society (UK)  
 MQ Fellowship Programme (UK)  
 Vienna Science and Technology Fund (Austria)  
 Research Foundation Flanders (Netherlands)  
 Natural Sciences and Engineering Research Council (Canada)  
 Swiss National Science Foundation (Switzerland)

##### *Ad Hoc Book Review:*

Guilford Press

##### *Editorial Board Service*

2015–present Journal of Abnormal Psychology – Consulting Editor  
 2016–present Clinical Psychological Science – Consulting Editor

##### *Ad Hoc Journal Reviewer:*

(Average of about 1-2 reviews per week)

Brain; Biological Psychiatry; Biological Psychiatry – Clinical and Cognitive Neuroscience;  
 Clinical Psychological Science; Cognitive, Affective and Behavioral Neuroscience;  
 Developmental Cognitive Neuroscience; Comprehensive Psychiatry; Computational Psychiatry,  
 European Journal of Neuropsychopharmacology; Frontiers in Neuroscience; Hormones and  
 Behavior; Harvard Review of Psychiatry; Human Brain Mapping; International Journal of  
 Neuropsychopharmacology; JAMA Psychiatry; Journal of Clinical Psychiatry; Journal of  
 Cognitive Neuroscience; Journal of Abnormal Psychology; Journal of Affective Disorders;  
 Journal of Experimental Psychology: General; Journal of Cognitive Neuroscience; Journal of  
 Natural Products; Journal of Neuroscience; Journal of Personality Assessment; Journal of

Psychiatric Research; Motivation and Emotion; Nature: Human Behavior; Neuroimage; Neuron; Neuropsychologia; Neuropsychopharmacology; Neuroscience and Biobehavioral Reviews; PLoS One; Psychiatry Research: Neuroimaging; Psychological Medicine; Psychoneuroendocrinology; Schizophrenia Bulletin; Schizophrenia Research; Scientific Reports; Social Cognitive Affective Neuroscience; Social Neuroscience; Synapse; Trends in Neurosciences

*Professional Memberships:*

Association for Psychological Science – Member  
Organization for Human Brain Mapping – Member  
Society of Biological Psychiatry – Member  
Society of Neuroscience – Member  
Society for Research in Psychopathology – Member  
American College of Neuropsychopharmacology – Associate Member

---

Media Coverage (selected)

**Science Daily** *How the brain decides to make an effort: the neural mechanics of motivation*  
**Scientific American** *Why Psychiatry Needs Neuroscience*  
**NPR WBEZ Chicago** *How the brain judges fault and punishment*  
**Science Daily.** *Fault trumps gruesome evidence*  
**NPR Marketplace.** *The brain chemical that could make you a better worker.*  
**Wired Science.** *The neuroscience of effort*  
**CBS News.** *Brain's dopamine may explain why some are slackers at work*  
**The Telegraph, UK.** *Slackers' brains are wired to under-achieve*  
**Science Daily.** *Dopamine impacts your willingness to work*  
**US News and World Report.** *Cues to slacker found in brain*  
**Huffington Post.** *Slacker or go-getter? Brain chemical may tell*  
**Shape Magazine** *Why are some people more motivated than others?*