

## Curriculum Vitae

**Date Prepared:** November 1, 2021

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**Place of Birth:** Mendrisio, Switzerland

### **Education:**

1995 M.S., Psychology, University of Zurich, Switzerland

1998 Ph.D., Psychology, University of Zurich, Switzerland

### **Postdoctoral Training:**

1998-1999 Postdoctoral Research Fellow, KEY Institute for Brain-Mind Research, University Hospital of Psychiatry, Zurich, Switzerland (Dietrich Lehmann, MD)

1999-2000 Postdoctoral Research Fellow, Laboratory of Affective Neuroscience, Psychology Department, University of Wisconsin-Madison, WI, USA (Richard J. Davidson, Ph.D.)

2000-2002 Assistant Scientist, W.M. Keck Laboratory for Functional Brain Imaging and Behavior and Laboratory of Affective Neuroscience, Psychology Department, University of Wisconsin, WI, USA, Madison (Richard J. Davidson, Ph.D.)

2002 Associate Scientist, W.M. Keck Laboratory for Functional Brain Imaging and Behavior and Laboratory of Affective Neuroscience, Psychology Department, University of Wisconsin, WI, USA Madison (Richard J. Davidson, Ph.D.)

### **Faculty Academic Appointments:**

2002-2006 Assistant Professor, Department of Psychology, Harvard University

2006-2010 John and Ruth Hazel Associate Professor of the Social Sciences, Department of Psychology, Harvard University

2010-2014 Associate Professor of Psychiatry, Department of Psychiatry, Harvard Medical School

2014- Professor of Psychiatry, Department of Psychiatry, Harvard Medical School

### **Appointments at Hospitals/Affiliated Institutions:**

1992-1994 Research Assistant, Institute for Biological Psychology, University of Zurich, Switzerland (Director: Norbert Bischof, Ph.D.)

1994-1997 Associate Research Specialist, EEG/EP-Mapping Laboratory, Department of Neurology, University Hospital, Zurich (Director: Dietrich Lehmann, MD)

1995-1997 Clinical and Research Specialist, Neuropsychological Unit, Department of Neurology, University Hospital, Zurich (Director: Marianne Regard, Ph.D.)

2009- Faculty Affiliate, Center for Brain Science, Harvard University, Cambridge, MA

- 2010- Psychologist, McLean Hospital, Belmont, MA  
2011- Faculty Affiliate, Program in Neuroscience, Harvard Medical School, Boston, MA

### **Major Administrative Leadership Positions:**

#### **Local**

- 2002-2010 Director, Affective Neuroscience Laboratory, Department of Psychology, Harvard University  
2010- Director, Center for Depression, Anxiety and Stress Research, McLean Hospital  
2010- Director, McLean Imaging Center, McLean Hospital  
2010- Director, Laboratory for Affective and Translational Neuroscience, McLean Hospital  
2015- Director of Research, Division of Depression and Anxiety, McLean Hospital

#### **National**

- 2011 Invited Moderator, National Institute of Mental Health (NIMH) Research Domain Criteria (RDoC) Project, “*Positive Valence Systems*” Workshop  
2012- National Institute of Mental Health (NIMH), National Advisory Mental Health Council, Workgroup on Targets and Compounds for FAST Clinical Trial Contracts  
2015 Planning Committee, Institute of Medicine, Forum on Neuroscience and Nervous System Disorders, *Enabling Drug Development, Discovery, and Translation for Cognitive Dysfunction in Depression* (Chairs: Thomas Insel and Thomas Laughren)  
2015 Organizer and Chair, *Beyond Monoamines: Towards New Conceptualizations and Treatments for Major Depression*, Radcliffe Institute for Advanced Study, Harvard University, August 20-21, 2015.  
2016 Panelist, Foundation for the National Institutes of Health, *Consensus Workshop on Standardization of Reward Processing Tasks*, Bethesda, Maryland, February 18-19, 2016.  
2016 Chair, Positive Valence Systems Subgroup, National Institute of Mental Health Council Workgroup, *Council Workgroup on Tasks and Measures for RDoC*, Bethesda, Maryland, April 5-6, 2016.  
2017 Invited Panelist, *Computational Psychiatry: Opportunities and Challenges for the Future*, NIMH Office of Director, Bethesda, MD, June 26-27, 2017.

### **Other Professional Positions**

#### **Scientific Advisory Board/Technical Advisory Boards**

- Blackthorn Therapeutics (now RBNC) (2021-present)  
Boehringer Ingelheim (2017-present)  
Compass Pathways (2019-present)  
Engrail Therapeutics (2020-present)  
Neurocrine Biosciences (2021-present)  
Otsuka Pharmaceuticals (2014, 2020-present)  
Takeda Pharmaceuticals (2018-2020)

## **Committee Service**

### **Local**

- 2002/2003, 2003/2004 Co-chair for Organization of Departmental Colloquium, Department of Psychology, Harvard University
- 2002/2003, 2006/2007, 2008/2009 Committee on Higher Degrees, Department of Psychology, Harvard University
- 2002/2003, 2003/2004, 2005/2006 Junior Faculty Search in Psychopathology, Department of Psychology, Harvard University
- 2003/2004, 2005/2006, 2006/2007 Chair, Research Seminar in Experimental Psychopathology/Clinical Psychology, Department of Psychology, Harvard University
- 2005/2006 Committee on Undergraduate Instruction, Department of Psychology, Harvard University
- 2006/2007 Curriculum Committee, Department of Psychology, Harvard University
- 2006-2007 William James Hall IT Consortium, Department of Psychology, Harvard University
- 2008-2009 Standing Committee on the Use of Human Subjects in Research, Harvard University
- 2008/2009 Co-chair, Research Seminar in Clinical Science, Department of Psychology, Harvard University
- 2007/2008 Senior Associate, Psychology of Conflict Research Group, International Negotiation Initiative, Harvard Law School (Director: Daniel Shapiro)
- 2010- Research Vision Committee, McLean Hospital
- 2010- Research Committee, McLean Hospital
- 2010-2015 Center for Depression, Anxiety and Stress Speaker Series, McLean Hospital, Chair
- 2010-2015 Neuroimaging Center Speaker Series, McLean Hospital, Chair
- 2010- McLean Fellowship Advisory Committee, McLean Hospital
- 2011- 9.4T Steering Committee, McLean Hospital
- 2011- Review Committee, McLean Research Day, McLean Hospital
- 2011- Committee on Academic Integrity, McLean Hospital
- 2011- Chair, Faculty Search, Center for Depression, Anxiety and Stress Research, McLean Hospital
- 2012- Letters of Evaluation for Academic Promotions: Harvard Medical School (MGH)
- 2012- Division Chief's Council, McLean Hospital
- 2012-2014 Clinical Research Committee, McLean Hospital
- 2013-2014 Neuroscience Seminar Series Committee, McLean Hospital
- 2013- EE Lab Steering Committee, McLean Hospital
- 2015- McLean Committee on Diversity and Inclusion
- 2015-2018 Standing Committee on Promotions, Reappointments, and Appointments, Harvard

Medical School (reviews of promotion cases to Assistant and Associate Professors)  
 2016 - HMS Full Professor Search Committee (2016: Psychiatry Dep.; 2018: Radiology Dep.)  
 2018-2020 President's Cabinet, McLean Hospital  
 2018- McLean Academic Steering Committee, McLean Hospital  
 2019-2021 Subcommittee of Professors, Harvard Medical School (reviews of promotion cases to Full Professors)  
 2021 Search Committee Member, Chief, Neuropsychology Department, McLean Hospital  
 2021 Search Committee Member, Chief, Psychology Department, McLean Hospital

**National**

2010-2013 Research Domain Committee, National Network of Depression Centers  
 2011 Early Career Award (Psychopathology area) Committee, American Psychological Association  
 2012- Letters of Evaluation for Academic Promotions: Mt. Sinai, Northwestern University, New York University, UCSD, University of Texas, University of Pittsburgh (2x), University of Wisconsin,  
 2014 2014 NNDC Conference Program Committee, National Networks of Depression Center  
 2017- Scientific Advisor, American Foundation for Suicide Prevention  
 2018 Ad-hoc reviewer, NIMH Board of Scientific Counselors  
 2020 American Psychological Association (APA) Distinguished Scientific Award evaluations

**International**

2015 Academic Advisory Committee, Wolfe Health Neuroscience Fellowship in the Neurobiology of Human Vulnerability and Resilience  
 2016 Else Kröner-Fresenius-Stiftung (Reviewer)  
 2019-2021 Invited Nominator, Nobel Prize in Physiology or Medicine, Nobel Committee, Assembly, Karolinska Institutet.  
 2019 Reviewer, Oxford Health Biomedical Research Centre, Oxford University

**Professional Societies**

2001- International Society for Brain Electromagnetic Topography (ISBET), Member  
 2003- Society for Psychophysiological Research, Member  
     2008-2011: Early Career Award Committee  
 2004- American Psychological Society, Member  
 2004- Society of Biological Psychiatry, Member  
     2013-present: Mentee/Mentor Program  
     2015-2017: Program Planning Committee  
 2004-2013 Society for Neuroscience, Member  
 2004- Society for Research in Psychopathology  
     2010-2014: Executive Board Member

- 2012: Early Career Award Committee  
 2016: Chair, Smadar Levin Award Committee
- 2006-2008 Emotion Research Group
- 2012- American College of Neuropsychopharmacology (ACNP)  
 2012-2017: Member  
 2017-2020: Membership Committee  
     2017-2018: Member  
     2019: Co-chair  
     2020: Chair
- 2016, 2017 Education and Training (Mentor)  
 2018-present: Fellow  
 2021-present: Membership Mentor  
 2021-2023: Council  
     2020: 2021 Honoric Awards Task Force  
     2020: Council Liaison for the Education and Training Committee
- 2013- Anxiety and Depression Association of America (ADAA)  
 2014-2017: Scientific Council  
 2015: Chair, Scientific Research Symposium, “*Neural Circuitry Mediating the Intersection and Divergence of Depression and Anxiety*”  
 2015-present: Mentee/Mentor Program  
 2021: Mentor, Alies Muskin Career Development Leadership Program
- 2021- Psychonomic Society, Full Member

**Grant Review Activities**

- 2000 Reviewer, Wellcome Trust and the Higher Education Funding Council, England, Joint Infrastructure Fund
- 2001 Reviewer, National Science Foundation, USA
- 2003 Outside Reviewer, Intramural Program, National Institute of Mental Health
- 2004, 2005 Reviewer, *Building Translational Research in Behavioral Science (ZMHI-NRB-Q 07)*, National Institute of Mental Health (NIMH/NIH)
- 2006 Study Section Member, *NIH Adult Psychopathology and Disorders of Aging Study Section*, National Institute of Mental Health (NIMH/NIH)
- 2008 Reviewer, Society in Science (The Branco Weiss Fellowship), Swiss Federal Institute of Technology Zurich
- 2011 Reviewer, Special Emphasis Panel, Basic Research on Self-Regulation (R21), *Biobehavioral & Behavioral Processes IRG (ZRG1 BBBP-L(53))*, National Institute of Mental Health (NIMH/NIH)
- 2011 Reviewer, Integrated Discovery System Projects, Ontario Brain Institute (OBI), Toronto, Ontario, Canada.
- 2012 Reviewer, Harvard Catalyst Advanced Imaging Pilot Research Grants and Concept

- Development Awards Program, Harvard Clinical and Translational Science Center, Harvard University
- 2013 Reviewer, *NIH Director's Transformative Research Awards (R01)* (ZRG1-BCMB-A 51R), National Institute of Health (NIH)
- 2013 Reviewer, *Mechanistic Research on CAM Natural Products (R01)*, Center for Complementary and Alternative Medicine (NCCAM/NIH)
- 2013 Co-Chair, *Advancing Eating Disorders Research through Dimensional Studies of Biology and Behavior* (RFA-MH-14-030), National Institute of Mental Health (NIMH/NIH)
- 2014 Reviewer, *Member-Conflict Applications MESH and CPDD*, ZRG1 BBBP-V (02), National Institute of Mental Health (NIMH/NIH)
- 2015 Reviewer, *Dimensional Approaches to Research Classification in Psychiatric Disorders* (RDoC), ZMH1 ERB-S (03), National Institute of Mental Health (NIMH/NIH)
- 2015 Oscar Stern Award, University of Michigan Depression Center
- 2015 Reviewer, *Consortium on Biomarkers and Outcome Measures in Autism Spectrum Disorder* (RFA-MH-15-800), National Institute of Mental Health (NIMH/NIH)
- 2015 Co-Chair, *Silvio O. Conte Centers for Basic or Translational Mental Health Research (P50)*
- 2016 *NIH Director's Early Independence Awards* (DP5) (Stage 1 Reviewer) (April and December 2016)
- 2017, 2018, 2019 Grant Reviewer, American Foundation for Suicide Prevention
- 2017 Reviewer, *Special Emphasis Member Conflict: Emotion, Substance Use, and Psychopathology*, ZRG1 BBBP-J 02, National Institute of Mental Health (NIMH/NIH)
- 2019 Reviewer, *Development of Psychosocial Therapeutic and Preventive Interventions for Mental Disorders*, ZMH1 ERB-D (04) S, National Institute of Mental Health (NIMH/NIH) (Special Emphasis Panel, February 2019)
- 2020 Reviewer, *Computational Approaches for Validating Dimensional Constructs of Relevance to Psychopathology* (R01, RFA-MH-19-242), ZMH1 ERB-S (05) R, National Institute of Mental Health (NIMH/NIH), March 30, 2020.
- 2020 Tommy Fuss Center for Neuropsychiatric Disease Research, Research Grant Program, Boston Children's Hospital, Harvard Medical School
- 2020 Reviewer, *Early Phase Psychosocial and Confirmatory Efficacy Clinical Trials*, ZMH1 ERB-B (02), National Institute of Mental Health (NIMH/NIH) (October 9, 2020)
- 2020 Reviewer, *Silvio O. Conte Centers for Basic or Translational Mental Health Research (P50)*

### **Editorial Activities**

- 2002, 2009 Outside Reviewer, Oxford University Press
- 2003 Outside Reviewer, MIT Press
- 2004 Outside reviewer, Allyn & Bacon [revision of Butcher/Mineka/Hooley, *Abnormal Psychology*, 13th ed.]
- 2006-2011 Consulting Editor, *Emotion*

- 2007- Consulting Editor, *Cognitive, Affective and Behavioral Neuroscience*
- 2009- Advisory Board, *Swiss Journal of Psychology*
- 2010- Editorial Board, *CNS Spectrums*
- 2010-2015 Editorial Board, *Biology of Mood & Anxiety Disorders*
- 2012 Outside Reviewer, Gross, J.J. (Ed.) (2014). *Handbook of Emotion Regulation* (2nd ed.). New York, NY: Guilford Press.
- 2012-2016 Editorial Board, *Journal of Abnormal Psychology*
- 2012- Editorial Board, *Neuroscience and Biobehavioral Reviews*
- 2012- Editorial Board, *Depression and Anxiety*
- 2013- Editorial Board, *Neuropsychopharmacology*
- 2013- Editorial Board, *Psychological Medicine*
- 2013- Field Editor, *Harvard Review of Psychiatry*
- 2015 Guest Editor, Special Issue “Psychobiology of the Intersection and Divergence of Depression and Anxiety”, *Depression and Anxiety*
- 2016- Editorial Board, *Biological Psychiatry*
- 2016- Editorial Board, *Computational Psychiatry*
- 2019- Editorial Board, *Biological Psychiatry: Cognitive and Clinical Neuroscience*
- 2019- Editorial Board, *Affective Science*
- 2018-2019 Guest Editor, Special Issue, “Depression: Harnessing Biology and Technology for the Next Generation of Treatment”, *Harvard Review of Psychiatry*
- 2020- Editorial Board, *The American Journal of Psychiatry*
- 2021-2014 Editor-in-Chief, *Cognitive, Affective, & Behavioral Neuroscience* (1/1/21-12/31/24)

### **Ad hoc Reviewer**

<u>Total Numbers of Journals:</u>	N = 128
<u>Total Numbers of Reviews Performed since 1998:</u>	N = 718
<u>Average reviews/year over past 10 years:</u>	N = 54/year

*Acta Psychiatrica Scandinavica; Acta Psychologica; Addiction; Aging and Mental Health; American Journal of Psychiatry; Archives of General Psychiatry; Assessment; Behavior Genetics; Behavior Therapy; Behavioral Neuroscience; Behaviour Research and Therapy; Behavioural Brain Research; Biological Psychiatry; Biological Psychiatry: Cognitive Neuroscience and Neuroimaging; Biological Psychology; Biology of Mood & Anxiety Disorders; Brain; Brain & Cognition; Brain Imaging and Behavior; British Journal of Psychiatry; Brain Research; Cerebral Cortex; Clinical Neurophysiology; Clinical Psychological Science; CNS Neuroscience & Therapeutics; CNS Spectrums; Cognitive, Affective, and Behavioral Neuroscience; Cognitive Brain Research; Cognitive Neurodynamics; Cognitive Neuropsychiatry; Cognitive Therapy and Research; Cognition & Emotion; Comprehensive Psychiatry; Computational Psychiatry; Computer Methods and Programs in Biomedicine; Current Opinion in Behavioral Sciences; Current Psychiatry Reviews; Depression and Anxiety; Development and Psychopathology; Developmental Science; eLife; Emotion; Emotion Review; European Journal of Neuroscience; European Neuropsychopharmacology; European Child & Adolescent Psychiatry; European Psychiatry; Experimental Brain Research; Experimental & Clinical Psychopharmacology;*

*Frontiers in Human Neuroscience; Frontiers in Language Sciences; Frontiers in Psychiatry; Frontiers Systems Neuroscience; Genes, Brain and Behavior; Harvard Review of Psychiatry; Human Brain Mapping; International Journal of Neuropsychopharmacology; International Journal of Psychophysiology; JAMA Network Open; JAMA Psychiatry; Journal of Abnormal Psychology; Journal of Addiction Medicine; Journal of Affective Disorders; Journal of Clinical Child and Adolescent Psychology; Journal of Child Psychology and Psychiatry; Journal of Clinical Psychiatry; Journal of Clinical Psychopharmacology; Journal of Cognitive Neuroscience; Journal of Consulting and Clinical Psychology; Journal of Experimental Psychology: General; Journal of Experimental Psychology: Learning, Memory, and Cognition; Journal of Behavior Therapy and Experimental Psychiatry; Journal of Neuroimaging; Journal of Neurophysiology; Journal of Neuroscience; Journal of Personality and Social Psychology; Journal of Psychopharmacology; Journal of Psychopathology and Behavioral Assessment; Journal of Psychiatric Research; Journal of Psychiatry and Neuroscience; Lancet Psychiatry; Molecular Psychiatry; Nature Human Behaviour; Nature Neuroscience; Nature Reviews Neuroscience; Neurobiology of Disease; NeuroImage; Neuron; Neuropsychobiology; Neuropsychologia; Neuropsychology; Neuropharmacology; Neuropsychopharmacology; NeuroReport; Neuroscience; Neuroscience & Biobehavioral Reviews; Neuroscience Letters; Neuroscience Research; Personality & Individual Differences; Perspectives on Psychological Science; Pharmacology & Therapeutics; Physiology & Behavior; PLOSOne; PLOS Computational Biology; Proceedings of the National Academy of Sciences; Psychiatry and Clinical Neurosciences; Psychiatry Research; Psychiatry Research: Neuroimaging; Psychological Medicine; Psychological Review; Psychological Science; Psychoneuroendocrinology; Psychopharmacology; Psychophysiology; Schizophrenia Research; Science; Scientific Reports; Social Cognitive and Affective Neuroscience; Stress and Health; Swiss Journal of Psychology; The FASEB Journal; The Pharmacogenomics Journal; The World Journal of Biological Psychiatry; Translational Psychiatry; Trends in Cognitive Sciences; Trends in Neurosciences*

Second (2014, 2015) and Fifth (2018) Top Reviewer for *Neuropsychopharmacology*

Top 10 Reviewer for *Biological Psychiatry* (2014, 2016, 2017, 2018, 2019)

Top 10 Reviewer for *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging* (2016, 2020)

### **Honors and Prizes**

1988	Award from the Foundation “Swiss Youth and Science”, Section Mathematics/Informatics
1999, 2000	Swiss National Science Foundation Fellowship
2003	William F. Milton Fund Award, Harvard University
2003, 2005, 2009	Clark Fund Award, Harvard University
2004, 2006, 2007, 2008	Honorable Mention, Everett S. Mendelsohn Excellence in Mentoring Award, Graduate School Council, Harvard University
2005, 2008	Talley Fund Award, Harvard University
2006	Merck Awards for Genome-Related Research, Harvard University
2006	Distinguished Scientific Award for an Early Career Contribution to Psychophysiology, Society for Psychophysiological Research
2006, 2008	Harvard/Robert Wood Johnson Health and Society Scholars Grant



- 2007 Hazel Chair
- 2007 Early Career Award, The EEG & Clinical Neuroscience Society
- 2008 NARSAD Independent Investigator Award
- 2011 William K. Warren Frontiers in Neuroscience Lecture, Laureate Institute for Brain Research, Tulsa, OK, USA
- 2012 Full Member, American College of Neuropsychopharmacology (ACNP)
- 2012 Kendon Smith Lecture Series, University of North Carolina at Greensboro, NC, USA
- 2015 Anne M. Cataldo Excellence in Mentoring Award, McLean Hospital
- 2016 Method to Extend Research in Time (MERIT) award, National Institute of Mental Health
- 2017 The Stuart T. Hauser, M.D. PhD. Mentorship Award in Psychiatry, Harvard Medical School
- 2017 Joel Elkes Research Award, American College of Neuropsychopharmacology
- 2018 Fellow, American College of Neuropsychopharmacology
- 2018 NARSAD Distinguished Investigator Award, Brain & Behavior Research Foundation
- 2019 Anna-Monika-Prize for Research in the Neurobiology and Treatment of Depressive Disorders, Anna-Monika-Foundation
- 2019 2019 Highly Cited Researcher (Web of Science) [Awarded to 0.1%, of the world's researchers across 21 research fields]
- 2020 2020 Highly Cited Researcher (Web of Science) [Awarded to 0.1%, of the world's researchers across 21 research fields]
- 2021 Method to Extend Research in Time (MERIT) award, National Institute of Mental Health (renewal)

### **Report of Funded and Unfunded Projects**

#### **Past**

- 01/01/98 – 12/31/99 Research Grant, Institut für Grenzgebiete der Psychologie und Psychohygiene, Freiburg, Germany (grant #: 67 13 10; PI: Peter Brugger)  
*The Magical Brain: Neuronal Mechanisms Underlying Paranormal Belief*  
Role: Co-PI  
Direct costs: \$199,955
- 01/01/99 – 12/31/99 81ZH-52864  
Swiss National Science Foundation Fellowship for Prospective Researchers  
*Investigations of Emotional Processing and Style: Electroencephalographic and Brain Imaging Studies*  
Role: PI  
Direct costs: \$35,000
- 01/01/99 – 12/31/00 Research Grant, “Holderbank”-Stiftung zur Förderung der wissenschaftlichen Fortbildung  
Role: PI  
Direct costs: \$11,000

01/01/02 – 12/31/02 81ZH-52864  
Competitive Renewal, Swiss National Science Foundation Fellowship for  
Prospective Researchers  
*Investigations of Emotional Processing and Style: Electroencephalographic  
and Brain Imaging Studies*  
Role: PI  
Direct costs: \$38,000

01/01/03 – 12/31/03 The Clark Fund, Harvard University  
*Functional Neuroimaging Studies of Depression*  
Role: PI  
Direct costs: \$6,000

01/01/03 – 12/31/04 William F. Milton Fund, Harvard University  
*Investigation of Affective Processing in Depression: Clues from Affective  
Neuroscience*  
Role: PI  
Direct costs: \$34,943

06/07/04 – 04/30/09 1R01MH068376-01A1 (priority score: 121, percentile: 0.7)  
National Institute of Mental Health/NIH  
*Neuroimaging Studies of Reward Processing in Depression*  
Role: PI  
Direct costs: \$1,125,000

12/01/04 – 11/30/05 GlaxoSmithKline  
*The Effects of Acute Administration of Bupropion on Neural Substrates  
Underlying Hedonic Capacity in Depression: A Placebo-controlled, Single-  
dose fMRI Study*  
Role: PI  
Total costs: \$91,596

07/01/05 – 06/30/08 Harvard University, Department of Psychology, Talley Fund  
*Childhood Sexual and Physical Abuse as Predictor of Depression and Reward  
Processing in Young Adulthood: A Neuroimaging Approach*  
Role: PI  
Direct costs: \$225,875

01/01/06 – 12/31/06 The Clark Fund, Harvard University  
*Behavioral and Electroencephalographic Predictors of Treatment Response in  
Depression*  
Role: PI  
Direct costs: \$6,000

03/01/06 – 02/28/07 Merck Awards for Genome-Related Research, Harvard University  
*Neurobiological Substrates Underlying Genetic Vulnerability to Depression: A  
Multi-level Approach Integrating Molecular Genetics and Neuroimaging*  
Role: PI  
Direct costs: \$20,000

06/01/06 – 12/31/06 GlaxoSmithKline  
*The Effects of Acute Administration of Bupropion on Neural Substrates Underlying Hedonic Capacity in Depression: A Placebo-controlled, Single-dose fMRI Study*  
 Role: PI  
 Total costs: \$27,519

07/01/06 – 08/31/07 Robert Wood Johnson Health and Society Scholars Grant  
*Early Adverse Events and Depression: A Neuroimaging Study Assessing the Effects of Childhood Maltreatment on Reward Processing in Young Adulthood*  
 Role: PI  
 Direct costs: \$29,874

07/01/06 – 06/30/08 1R21AT002974  
 National Center for Complementary & Alternative Medicine/NIH  
*The Effects of SAME on Reward Circuitry in Depression*  
 Role: PI  
 Direct costs: \$250,000

09/01/06 – 08/31/07 Provost's Content Fund, #180 (with Craig Smith)  
 Provost's Instructional Technology Content Fund, Harvard University  
*Abnormal Online: A Multimedia Exploration of Psychopathology*  
 Role: Co-PI  
 Direct costs: \$7,450

01/01/08 – 4/30/09 Robert Wood Johnson Health and Society Scholars Grant  
*Early Adverse Events and Depression: A Neuroimaging Study Assessing the Effects of Childhood Maltreatment on Reward Processing in Young Adulthood*  
 Role: PI  
 Direct costs: \$10,000

09/01/08 – 08/31/09 Harvard University, Department of Psychology, Talley Fund  
*Childhood Sexual and Physical Abuse as Risk Factors for Depression: A Molecular Genetics Approach with a Focus on Anhedonia*  
 Role: PI  
 Direct costs: \$100,000

01/01/09 – 12/31/09 The Clark Fund, Harvard University  
*Neural Mechanisms of Emotion Dysregulation in Depression*  
 Role: Co-PI  
 Direct costs: \$6,000

09/23/09 – 06/30/09 ANT (Advanced NeuroTechnology) B.V., Enschede, Netherlands  
*Predicting Treatment Response in Depression*  
 Role: PI  
 Direct costs: \$6,000

11/01/09 – 10/31/10 Harvard Catalyst Pilot Grant  
*Toward a Neurobiological Understanding of Anhedonia in Major Depression*  
 Role: PI  
 Direct costs: \$49,976

06/01/08 – 03/31/11 1R21MH078979 (priority score: 115)  
National Institute of Mental Health/NIH  
*Translational Measures of Anhedonia in Humans and Rats*  
Role: PI  
Direct costs: \$275,000

09/15/08 – 09/14/11 NARSAD Independent Investigator Award  
National Alliance for Research on Schizophrenia and Depression  
*The Effects of Acute Stress on the Neurobiology of Reward Processing in Major Depressive and Bipolar Disorders*  
Role: PI  
Direct costs: \$100,000

07/01/11 – 06/30/12 1U01MH010040-01 Supplement (Trivedi)  
National Institute of Mental Health/NIH  
*Establishing Moderators/Biosignatures of Antidepressant Response-Clinical Care (Supplement)*  
Role: Subcontract PI  
Direct costs: \$26,530

07/01/10 – 06/28/15 7R01MH068376-07 (Pizzagalli) (priority score: 14)  
National Institute of Mental Health/NIH  
*Neuroimaging Studies of Reward Processing in Depression*  
Role: PI  
Direct costs: \$2,035,842

10/01/10 – 09/30/14 1U01MH010040-01 (Trivedi)  
National Institute of Mental Health/NIH  
*Establishing Moderators/Biosignatures of Antidepressant Response-Clinical Care*  
Role: Subcontract PI  
Direct costs: \$411,992

06/01/12 – 02/28/15 3R01MH068376-09S1 (Pizzagalli)  
National Institute of Mental Health/NIH  
*Neuroimaging Studies of Reward Processing in Depression (Supplement)*  
Role: PI  
Direct costs: \$83,126

07/01/15 – 06/30/16 1U01MH092221 (Trivedi)  
National Institute of Mental Health/NIH  
*Establishing Moderators/Biosignatures of Antidepressant Response-Clinical Care*  
Role: PI  
Direct costs: \$98,628

02/29/12 – 02/28/17 W81XWH-12-1-0109 (Rauch, Killgore, Pizzagalli)  
USAMRAA  
*Internet Based Cognitive Behavioral Therapy Effects on Depressive Cognitions and Brain Function*

Role: Co-PI  
 Direct costs: \$1,646,035

09/15/13 – 04/30/17 Contract HHSN271201100061 (Fava)  
 National Institute of Mental Health/NIH  
*Double-Blind, Placebo-Controlled, Proof-of Concept (POC) Trial of LY2456302, a Kappa-Selective Opioid Receptor Antagonist, Augmentation of Antidepressant Therapy in Treatment-Resistant Depression (TRD)*  
 Role: Sub-contract PI  
 Direct costs: \$21,958 (McLean Hospital subcontract)

09/18/12 – 05/31/17 1R01MH095809-01A1 (Pizzagalli) (priority score: 10)  
 National Institute of Mental Health/NIH  
*Early Life Stress and Depression: Molecular and Functional Imaging Approaches*  
 Role: PI  
 Direct costs: \$1,636,789

09/01/14 – 08/31/17 Tommy Fuss Fund  
*Toward Identification of Genetic and Neural Predictors of Adolescent Depression*  
 Role: Co-PI (with Randy Auerbach)  
 Direct costs: \$86,956

08/15/15 – 05/31/17 1R01MH095809-03S1 (Pizzagalli) Supplement  
 National Institute of Mental Health/NIH  
*Early Life Stress and Depression: Molecular and Functional Imaging Approaches*  
 Role: PI  
 Direct costs: \$98,628

04/01/13 – 03/30/18 1R01MH100350-01 (Normandin)  
 National Institute of Mental Health/NIH  
*Combined PET and fMRI Imaging of Dopamine and Serotonin Responses in Depression*  
 Role: Sub-contract PI  
 Direct costs: \$107,771 (McLean Hospital subcontract)

01/01/14 – 6/30/18 Clinical Neuroscience Research Grant Program (Pizzagalli, Auerbach)  
 Dana Foundation  
*Towards Identification of Neural Predictors of Adolescent Depression: A Multi-Modal Neuroimaging Study*  
 Role: PI  
 Direct costs: \$299,427

07/01/15 – 06/30/18 R21 MH105775-01 (Kumar) [NCE]  
 National Institute of Mental Health/NIH  
*Influence of GABA on Reinforcement Learning in Individuals with Current and Remitted Depression*  
 Role: Co-investigator

Direct costs: \$275,000

09/01/13 – 08/31/18 1R01MH101521 (Pizzagalli) [NCE]  
National Institute of Mental Health/NIH  
*Multi level Analysis of Positive Valence Systems Across Mood Disorders*  
Role: PI  
Direct costs: \$1,589,524

08/01/13 – 07/31/18 1R01MH101521 (Schneier) [NCE]  
National Institute of Mental Health/NIH  
*Ventrosriatal Dopamine Release and Reward Motivation in MDD*  
Role: Sub-contract PI  
Direct costs: \$178,740 (McLean Hospital subcontract)

09/26/17 – 09/25/18 HHSN271201700776P (Germine)  
National Institute of Mental Health/NIH  
*TestMyBrain Design Consulting for Research Domain Criteria Field Test Battery*  
Role: Co-investigator  
Direct costs: \$91,447

07/01/14 – 03/31/19 1R01 DA036032 (Gilbert)  
National Institute of Drug Abuse/NIH  
*Predictors of Light Smoker Trajectories*  
Role: Sub-contract PI  
Direct costs: \$151,959 (McLean Hospital subcontract)

07/01/18 – 06/30/19 Partners Innovation Discovery Grant (Webb, Pizzagalli)  
Partners HealthCare  
*Development of a Machine Learning Algorithm-guided Approach to Treatment Selection for Depressed Patients*  
Role: Co-PI  
Direct costs: \$50,000

10/01/15 – 09/30/19 Tommy Fuss Fund  
*Identifying Neural Markers that Predict Depression in Adolescence*  
Role: Co-PI (with Randy Auerbach)  
Direct costs: \$240,000

01/01/17 – 12/31/19 Richard Saltonstall Charitable Foundation (Pizzagalli, Whitton)  
*Using Reward-Based Biomarkers to Detect Genetic Risk for Bipolar Disorder*  
Role: Co-PI  
Direct costs: \$50,000

01/01/18 – 12/31/19 Richard Saltonstall Charitable Foundation (Pizzagalli, Whitton)  
*Identifying Abnormalities in Brain Structure Associated with Genetic Risk for Bipolar Disorder*  
Role: Co-PI  
Direct costs: \$50,000

03/26/19 – 06/30/20 3 U01 MH108168-04S (Gabrieli J., Whitfield-Gabrieli S.)  
National Institute of Mental Health/NIH

*Connectomes Related to Anxiety and Depression in Adolescents*

Role: Subcontract PI

Direct costs: \$41,664 (McLean subcontract)

04/01/16 – 03/31/21 1 U01 MH108168 (Gabrieli, Whitfield-Gabrieli)

National Institute of Mental Health/NIH

*Connectomes Related to Human Disease (U01)*

Role: Subcontract PI

Direct costs: \$354,184 (McLean Hospital subcontract)

12/01/15 – 11/30/20 R01 DK104772 (Holsen)

National Institute of Diabetes and Digestive and Kidney Diseases/NIH

*Ghrelin Modulation of Mesolimbic Reward Signaling in Stress-induced Hyperphagia*

Role: Subcontract PI

Direct costs: \$60,490 (McLean Hospital subcontract)

06/01/18 – 04/30/20 1R61MH116089 (Schneier)

National Institute of Mental Health/NIH

*Gaze-contingent Music Reward Therapy for Social Anxiety*

Role: Subcontract PI

Direct costs: \$231,779 (McLean subcontract)

**Current**

09/18/15 – 12/30/21 1R01MH102279 (Cusin, Fava, Pizzagalli)

National Institute of Mental Health/NIH

*Neurobiological Underpinnings of Placebo Response in Depression*

Role: Multiple PI

Direct costs: \$751,405 (McLean Hospital subcontract)

04/01/16 – 08/31/21 UH2/UH3 MH109334-01 (Pizzagalli)

National Institute of Mental Health/NIH

*Novel Cross-Species Neurophysiological Assays of Reward and Cognitive Domains*

Role: PI

Direct costs: \$1,953,411

04/28/16 – 02/28/22 2R01MH068376-14 (Pizzagalli) [recoded as MERIT award, 2R37MH068376]

National Institute of Mental Health/NIH

*Neuroimaging Studies of Reward Processing in Depression*

Role: PI

Direct costs: \$2,497,470

08/10/16 – 10/30/21 5R01MH108602 (Pizzagalli, Goldstein)

National Institute of Mental Health/NIH

*Sex specific GABA Stress Circuitry and Hedonic Deficits in Depression*

Role: Multiple PI

Direct costs: \$2,701,504

09/15/18 – 09/14/21 NARSAD Distinguished Investigator Award, Brain & Behavior Research Foundation (Pizzagalli) (grant #: 26950)  
*Beyond Monoamines: The Role of the Nociceptin/Orphanin FQ Receptor in Major Depression*  
 Role: PI  
 Direct costs: \$92,591

04/13/21 – 03/31/24 1R33MH116089 (Schneier)  
 National Institute of Mental Health/NIH  
*Gaze-contingent Music Reward Therapy for Social Anxiety*  
 Role: Subcontract PI  
 Direct costs: \$116,649 (McLean subcontract)

02/15/19 – 03/31/24 R01 MH116205-A1 (MPI: Misra, Eddy)  
 National Institute of Mental Health/NIH  
*The Role of Estrogen in the Neurobiology of Eating Disorders: A Study of Cognitive Flexibility and Reward in Eating Disorders*  
 Role: Subcontract PI  
 Direct costs: \$724,961 (McLean subcontract)

01/01/20 – 12/31/21 Richard Saltonstall Charitable Foundation (Pizzagalli)  
*Toward Novel Antidepressant Targets for Major Depression: Focus on Nociceptin/Orphanin FQ Receptors*  
 Role: PI  
 Direct costs: \$100,000

04/15/20 – 03/31/25 1 P50 MH119467-01A1 (Pizzagalli)  
 National Institute of Mental Health/NIH  
*Novel Treatment Targets For Affective Disorders Through Cross-Species Investigation of Approach/Avoidance Decision Making*  
 Role: Overall Center PI  
 Direct costs: \$13,436,154

07/01/20 – 06/30/25 2R01MH095809-05A1 (Pizzagalli, Du) (competing renewal)  
 National Institute of Mental Health/NIH  
*Early Life Stress and Depression: Molecular and Functional Imaging Approaches*  
 Role: MPI  
 Direct costs: \$2,492,081

11/01/21 – 10/31/24 TBD (Pizzagalli, Ressler)  
 Wellcome Leap  
*McLean Dissection of Anhedonia: From Neural Systems and Multiomics to Behavior*  
 Role: MPI  
 Direct costs: \$4,282,491

02/01/22 – 1/30/24 Israel-U.S. Binational Industrial Research and Development Foundation (Pizzagalli, Ressler)



*Personalizing Self Neuro-modulation Therapy for Major Depressive Disorder (MDD) Using Clinical Biomarkers for MDD Subtypes*

Role: MPI McLean Subcontract

Direct costs: \$870,116

03/01/22 – 02/28/27 R37MH068376-17 (Pizzagalli) [MERIT award renewal]  
National Institute of Mental Health/NIH  
*Neuroimaging Studies of Reward Processing in Depression*  
Role: PI  
Direct costs: \$2,468,558

### **Awards/Grants to Mentees**

#### **Past (as primary mentor)**

09/01/06 – 09/1/07 1 F31 MH074246 (Christen Deveney)  
National Institute of Mental Health/NIH  
*An ERP Analysis of Cognition After Emotion Regulation*  
Role: Primary Mentor (pre-doctoral fellowship)  
Direct costs: \$27,124

04/01/07 – 06/30/08 1 F31 MH078346 (Avram Holmes)  
National Institute of Mental Health/NIH  
*Action Monitoring in Depression: ERP and fMRI Correlates*  
Role: Primary Mentor (pre-doctoral fellowship)  
Direct costs: \$35,173

12/01/08 – 08/31/10 1 F32 MH081394 (Daniel Dillon)  
National Institute of Mental Health/NIH  
*Emotion Regulation in Depression: Neural Bases of Reappraisal*  
Role: Primary Mentor (post-doctoral fellowship)  
Direct costs: \$88,361

01/01/10 – 12/31/11 NARSAD Young Investigator Award (Daniel Dillon)  
National Alliance for Research on Schizophrenia and Depression  
*Toward a Functional Dissection of Anhedonia in Major Depression: Dissociating Decision-making Deficits from Reward Insensitivity*  
Role: Primary Mentor  
Direct costs: \$59,530

07/01/11 – 06/30/12 The Adam Corneel Young Investigator Award (Randy Auerbach)  
McLean Hospital/Harvard Medical School  
*Project ADAPT: Examining the Efficacy of an Investigatory Group Treatment for Adolescent Depression*  
Role: Primary Mentor  
Total costs: \$20,000

02/1/12 – 01/31/13 The O'Keefe Family Junior Investigator Award For Excellence In Imaging Research (Pia Pechtel)  
McLean Imaging Center, McLean Hospital

*Neural Substrates of Emotion Dysregulation and High-Risk Behavior in Adolescents with a History of Childhood Sexual Abuse*

Role: Primary Mentor

Direct costs: \$7,900

- 07/01/12 – 06/30/13 Kaplen Fellowship on Depression (Randy Auerbach)  
Department of Psychiatry, Harvard Medical School  
*The Neural Underpinnings Associated with Reward Dysfunction in Adolescent Depression*  
Role: Primary Mentor  
Direct costs: \$72,414
- 07/01/12 – 06/30/13 Livingston Fellowship Award (Poornima Kumar)  
Department of Psychiatry, Harvard Medical School  
*Social Reinforcement Learning and Depression: An fMRI Study*  
Role: Primary Mentor  
Direct costs: \$5,000
- 07/01/12 – 06/30/13 The Adam Corneel Young Investigator Award (Michael Treadway)  
McLean Hospital/Harvard Medical School  
*Neuroinflammatory Mechanisms of Stress-induced Anhedonia*  
Role: Primary Mentor  
Direct costs: \$19,188
- 04/1/12 – 03/31/14 K99MH094438 (Daniel Dillon)  
National Institute of Mental Health/NIH  
*Neuroscience of Reward-related Learning and Memory in Depression*  
Role: Primary Mentor  
Direct costs: \$691,049 (K phase: \$167,964)
- 01/15/13 – 01/14/15 Brain & Behavior Research Foundation (formerly NARSAD) Young Investigator Award (Poornima Kumar)  
*Neurobiology of Reward and Punishment Learning in Major Depressive Disorder*  
Role: Primary Mentor  
Direct costs: \$59,977
- 01/15/13 – 01/14/15 Brain & Behavior Research Foundation (formerly NARSAD) Young Investigator Award (Pia Pechtel)  
*Depression and Reward Responsiveness in Adolescents with a History of Childhood Sexual Abuse*  
Role: Primary Mentor  
Direct costs: \$59,977
- 01/15/13 – 01/14/15 Brain & Behavior Research Foundation (formerly NARSAD) Young Investigator Award (Bradford Reich)  
*Neuroimaging of Affective Instability in BPD/BP II*  
Role: Primary Mentor  
Direct costs: \$59,952
- 01/15/13 – 01/14/16 F32 MH099801-01 (NRSA) (Christian Webb)

- National Institute of Mental Health/NIH  
*Investigating Neural and Psychotherapeutic Mediators of Placebo Response in MDD*  
 Role: Primary Mentor  
 Direct costs: \$150,407
- 07/01/13 – 06/30/14 The Adam Corneel Young Investigator Award (Roe Admon)  
*Neural Networks Mediating Acute and Sustained Positive Mood Deficits in Depression*  
 Role: Primary Mentor  
 Direct costs: \$20,000
- 07/01/13 – 06/30/15 Klingenstein Third Generation Fellowship Award in Depression (Randy Auerbach)  
*Predicting Adolescent Major Depressive Disorder: A Multimodal Brain Imaging Approach*  
 Role: Primary Mentor  
 Direct costs: \$60,000
- 12/26/13 – 11/30/15 1K99MH102355-01 (Michael Treadway)  
 National Institute of Mental Health/NIH  
*Stress and MDD Effects on mPFC Glutamate and GABA During Reward Processing*  
 Role: Primary Mentor  
 Direct costs: \$708,000
- 01/15/14 – 01/14/16 Brain & Behavior Research Foundation (formerly NARSAD) Young Investigator Award (Roe Admon)  
*Neural Networks Mediating Acute and Sustained Positive Mood Deficits in Depression*  
 Role: Primary Mentor  
 Direct costs: \$59,991
- 01/15/14 – 01/14/16 Brain & Behavior Research Foundation (formerly NARSAD) Young Investigator Award (Michael Treadway)  
*Assessment of Neuroinflammation and Reward Processing Dysfunction in Depression with Simultaneous PET and fMRI*  
 Role: Primary Mentor  
 Direct costs: \$59,402
- 07/01/14 – 06/30/15 The Phyllis and Jerome Lyle Rappaport Mental Health Research Fellowship (Ashlee Van'T Veer)  
 McLean Hospital/Harvard Medical School  
*Reward Responsiveness and Cognitive Control in Individuals with a History of Depression*  
 Role: Primary Mentor  
 Direct costs: \$35,000 (withdrawn)
- 09/01/14 – 08/31/17 1 F32 MH106256 (Ashlee Van'T Veer)  
 National Institute of Mental Health/NIH

*Investigating Neurobiological and Behavioral Effects of Stress on Reward Processing in Depression*

Role: Primary Mentor  
Direct costs: \$167,451 (withdrawn)

07/1/14 – 06/30/15 Andrew P. Merrill Memorial Research Fellow Award (Alexis Whitton)  
McLean Hospital/Harvard Medical School  
*Neural Processes Underpinning Differences in Sensitivity to Temporal Variation in Reward: Moving Towards a Biomarker of Impulsivity that May Distinguish Bipolar from Unipolar Depression*

Role: Primary Mentor  
Direct costs: \$15,217

07/01/14 – 06/30/15 The Phyllis and Jerome Lyle Rappaport Mental Health Research Fellowship (Roselinde Kaiser)  
McLean Hospital/Harvard Medical School  
*Neural Network Dysfunction in Teen Depression: Temporal Dynamics and Behavioral Correlates*

Role: Primary Mentor  
Direct costs: \$25,379

07/01/14 – 06/30/15 Sir Keith Murdoch Fellowship (Alexis Whitton)  
American Australian Association  
*Neurobiological Predictors of (Hypo)mania in Individuals Seeking Treatment for Depression*

Role: Primary Mentor  
Direct costs: \$32,000

07/01/15 – 06/30/16 Kaplen Fellowship on Depression (Callie McGrath)  
Department of Psychiatry, Harvard Medical School  
*Brain Correlates of Abnormal Approach-Avoidance Behaviors in Major Depression*

Role: Primary Mentor  
Direct costs: \$71,000

07/01/15 – 06/30/16 Livingston Fellowship Award (Callie McGrath)  
Department of Psychiatry, Harvard Medical School  
*Brain Correlates of Abnormal Approach-Avoidance Behaviors in Major Depression*

Role: Primary Mentor  
Direct costs: \$5,500

03/01/15 – 11/23/16 1F32MH106262 (Roselinde Kaiser)  
National Institute of Mental Health/NIH  
*Temporal Dynamics of Neural Network Dysfunction in Depression*

Role: Primary Mentor  
Direct costs: \$178,603

07/01/15 – 06/30/16 The Adam Corneel Young Investigator Award (Christian Webb)  
McLean Hospital/Harvard Medical School

*Predicting Future Depressive Symptoms in Adolescents: A Multi-Modal Approach*

Role: Primary Mentor

Direct costs: \$19,184

- 07/01/15 – 06/30/16 Eleanor & Miles Shore HMS Fellowship (Poornima Kumar)  
McLean Hospital/Harvard Medical School  
*The Relationship between Reinforcement Learning Abnormalities and the Emergence of Depressive Symptomology*  
Role: Primary Mentor  
Direct costs: \$26,087
- 04/01/13 – 03/30/17 1 K23 MH097786-01A1 (Randy Auerbach)  
National Institute of Mental Health/NIH  
*Examination of Reward Processing in the Treatment of Adolescent Major Depression*  
Role: Primary Mentor  
Direct costs: \$791,450
- 07/01/15 – 06/30/17 Klingenstein Third Generation Fellowship Award in Depression (Christian Webb)  
*Towards Reward-Related Biomarkers of Adolescent Depression Vulnerability*  
Role: Primary Mentor  
Direct costs: \$60,000
- 01/01/16 – 12/31/17 NHMRC CJ Martin Early Career Biomedical Fellowship (Alexis Whitton)  
National Health and Medical Research Council  
*Using Reward-based Biomarkers to Improve the Early Detection of Bipolar Disorder in Individuals Seeking Treatment for Depression*  
Role: Primary Mentor  
Direct costs: \$258,040
- 01/01/16 – 12/31/17 R.G. Menzies Award (Alexis Whitton)  
National Health and Medical Research Council  
*Using Reward-based Biomarkers to Improve the Early Detection of Bipolar Disorder in Individuals Seeking Treatment for Depression*  
Role: Primary Mentor  
Direct costs: \$63,409
- 01/15/16 – 01/14/18 Brain & Behavior Research Foundation (formerly NARSAD) Young Investigator Award (Poornima Kumar)  
*Influence of GABA on reinforcement learning in individuals with major depression*  
Role: Primary Mentor  
Direct costs: \$69,990
- 01/15/16 – 01/14/18 Brain & Behavior Research Foundation (formerly NARSAD) Young Investigator Award (Christian Webb)  
*Predicting Future Depressive Symptoms in Adolescents: A Multi-Modal Approach*

Role: Primary Mentor  
 Direct costs: \$70,000

01/15/16 – 01/14/18 Brain & Behavior Research Foundation (formerly NARSAD) Young Investigator Award (Alexis Whitton)  
*Examining the Relationship Between Resting Glutamate, Corticostriatal Connectivity and Delay Discounting: Identifying Potential Predictors of (Hypo)mania in Depressive Disorders*  
 Role: Primary Mentor  
 Direct costs: \$69,894

09/25/15 – 08/31/19 1K23MH108752 (Christian Webb)  
 National Institute of Mental Health/NIH  
*Examining Reward-Related Predictors and Mechanisms of Change in BA Treatment for Anhedonic Adolescents*  
 Role: Primary Mentor  
 Direct costs: \$591,471

01/15/17 – 01/14/19 Brain & Behavior Research Foundation (formerly NARSAD) Young Investigator Award (Roselinde Kaiser)  
*Neurocognitive Phenotyping of Mood Disorders*  
 Role: Primary Mentor  
 Direct costs: \$69,394 [transferred to UCLA]

07/01/17 – 06/30/19 Kaplen Fellowship on Depression (Emily Belleau)  
 Department of Psychiatry, Harvard Medical School  
*Bouncing back from stress in adolescent depression: Investigating aberrant resting state connectivity in the aftermath of stress*  
 Role: Primary Mentor  
 Direct costs: \$73,670

07/01/17 – 06/30/19 Livingston Fellowship Award (Emily Belleau)  
 Department of Psychiatry, Harvard Medical School  
*Bouncing back from stress in adolescent depression: Investigating aberrant resting state connectivity in the aftermath of stress*  
 Role: Primary Mentor  
 Direct costs: \$4,800

03/01/18 – 2/29/20 F32MH115530 (Andrew Peckham)  
 National Institute of Mental Health/NIH  
*A Randomized Controlled Trial of Cognitive Control Training For Urgency in A Naturalistic Clinical Setting*  
 Role: Co-Sponsor  
 Direct costs: \$179,170

08/01/18 – 07/31/20 Dorris Translational Research Pilot Award, McLean Hospital (Yuen Ang)  
*Cognitive Effort-based Decision Making and Motivational Anhedonia in Major Depressive Disorder*  
 Role: Primary Mentor  
 Direct costs: \$5,217

- 07/01/18 – 06/30/20 The Phyllis and Jerome Lyle Rappaport Mental Health Research Fellowship (Maria Ironside)  
McLean Hospital/Harvard Medical School  
*Biomarkers of Response to Treatment with Frontal Cortex Stimulation for Anxious Depression*  
Role: Primary Mentor  
Direct costs: \$30,435
- 01/15/19 – 01/14/21 Brain & Behavior Research Foundation (formerly NARSAD) Young Investigator Award (Christian Webb)  
*Development of a Machine Learning Algorithm-guided Approach to Treatment Selection for Depression*  
Role: Primary Mentor  
Direct costs: \$70,000

Current (as primary mentor)

- 07/01/17 – 06/30/21 The Adam Corneel Young Investigator Award (Emily Belleau)  
McLean Hospital/Harvard Medical School  
*Recovery from stress in adolescent depression: Investigating abnormal stress-related resting state connectivity changes*  
Role: Primary Mentor  
Total costs: \$17,391
- 05/01/18 – 04/30/21 Klingenstein Third Generation Fellowship Award in Depression (Emily Belleau)  
*Neural Underpinnings of Acute Stress and Stress Recovery in Adolescent Depression*  
Role: Primary Mentor  
Direct costs: \$60,000
- 08/01/18 – 07/31/21 Dorris Translational Research Pilot Award, McLean Hospital (Poornima Kumar)  
*Translational Approach to Understanding the Neurobiology of Reinforcement Learning in Depression*  
Role: Primary Mentor  
Direct costs: \$10,434
- 09/01/18 – 07/31/23 1K23 DK120517 (Kristin Javaras)  
National Institute of Diabetes and Digestive and Kidney Diseases/NIH  
*Understanding the Effects of Acute Stressors and Negative Emotion on Eating Behavior in Binge-Eating Disorder: The Role of Stressor-Induced Changes in Reward and Cognitive Control*  
Role: Primary Mentor  
Direct costs: \$899,155
- 11/1/18-10/31/2021 Brain & Behavior Research Foundation (formerly NARSAD) Young Investigator Award (Jennifer Fanning)  
*Neural Dynamics of Cognitive Control in PTSD*  
Role: Primary Mentor

- Direct costs: \$70,000
- 09/01/18 – 08/31/21 1K23 MH109824 (Jennifer Fanning)  
National Institute of Mental Health/NIH  
*Neural Mechanisms Mediating Trauma and Aggression*  
Role: Co-Mentor  
Direct costs: \$899,155
- 07/1/19 – 06/30/21 Andrew P. Merrill Memorial Research Fellow Award (Hans Schroder)  
McLean Hospital/Harvard Medical School  
*Impact of biogenetic feedback on default mode network and cognition control in Major Depressive Disorder*  
Role: Primary Mentor  
Direct costs: \$25,000
- 07/01/19 – 06/30/21 Kaplen Fellowship on Depression (Yuen Ang)  
Department of Psychiatry, Harvard Medical School  
*Developing a Novel Behavioral Index to Probe the Neural Basis of Motivational Anhedonia in Major Depressive Disorder*  
Role: Primary Mentor  
Direct costs: \$73,670
- 07/01/19 – 06/30/21 Livingston Fellowship Award (Yuen Ang)  
Department of Psychiatry, Harvard Medical School  
*Developing a novel behavioral index to probe the neural basis of motivational anhedonia in Major Depressive Disorder*  
Role: Primary Mentor  
Direct costs: \$9,675
- 07/01/19 – 06/30/21 The Phyllis and Jerome Lyle Rappaport Mental Health Research Fellowship (Matthew Sacchet)  
McLean Hospital/Harvard Medical School  
*Depression, Mindfulness, and Individualized Brain Systems: Toward Brain-based Precision Psychiatry*  
Role: Primary Mentor  
Direct costs: \$30,435
- 07/01/20 – 06/30/21 The Phyllis and Jerome Lyle Rappaport Mental Health Research Fellowship (Matthew Sacchet)  
McLean Hospital/Harvard Medical School  
*Stress Mechanisms of Mindfulness-based Interventions for Depression*  
Role: Primary Mentor  
Direct costs: \$30,435
- 07/01/20 – 06/30/21 Rossano Mind, Brain & Behavior Pre-Doctoral Summer Fellowship (Steven Lamontagne)  
McLean Hospital/Harvard Medical School  
*Role of Dopamine Function in Cognitive Control Performance: Behavioural & Physiological Correlates*  
Role: Primary Mentor



Direct costs: \$5,217

04/01/20 – 03/31/25 1K23 MH122668-01 (Emily Belleau)  
National Institute of Mental Health/NIH  
*Neural Correlates of Stress and Perceived Control in Adolescent Depression*  
Role: Primary Mentor  
Direct costs: \$838,500

04/01/20 – 03/31/25 1K23 MH120351-01 (Ryan Jacoby)  
National Institute of Mental Health/NIH  
*Targeting Attentional and Cognitive Control to Enhance the Transdiagnostic Treatment of Repetitive Negative Thinking*  
Role: Co-Mentor  
Direct costs: \$924,772

06/01/20 – 06/30/25 K23 MH123864-01 (Nili Solomonov, Weill Medical College of Cornell University)  
National Institute of Mental Health/NIH  
*positive valence systems engagement during social reward exposure psychotherapy for mid- and late-life depression*  
Role: Consultant  
Direct costs: \$955,315

09/01/20 – 08/31/23 1F32 MH124409-01 (Adrienne Romer)  
National Institute of Mental Health/NIH  
*Replicability, Mechanisms, and Trajectory of Neural Alterations Related to General Psychopathology*  
Role: Primary Mentor  
Direct costs: \$200,082

01/15/21 – 01/14/23 Brain & Behavior Research Foundation (formerly NARSAD) Young Investigator Award (Matthew Sacchet)  
*Person-specific Functional Brain Mapping and Major Depressive Disorder*  
Role: Primary Mentor  
Direct costs: \$70,000

01/15/21 – 01/14/23 Brain & Behavior Research Foundation (formerly NARSAD) Young Investigator Award (Yuen Ang)  
*Neural Mechanisms Underlying Cognitive Motivational Anhedonia in Depression*  
Role: Primary Mentor  
Direct costs: \$69,984

07/01/21 – 06/30/22 The Adam Corneel Young Investigator Award (Adrienne Romer)  
McLean Hospital/Harvard Medical School  
*The Role of Cortico-Cerebellar Circuitry Dusing cognitive Control in Healthy Young Adults*  
Role: Primary Mentor  
Total costs: \$20,000

05/01/21 – 04/26/26 K23 MH125920 (Antonia Seligowski)

National Institute of Mental Health/NIH  
*A multi-modal Investigation of Neurophysiological Deficits in PTSD*  
 Role: Primary Mentor  
 Direct costs: \$706,130

09/01/21 – 08/31/22 (Matthew Sacchet)  
 2021 Joseph and Susan Gatto Foundation Award for Excellence in Imaging, Drug Abuse, and Psychiatric Research  
*Mindfulness, Positive Emotion, and Depression: A Multimodal Mechanism-focused Clinical Trial*  
 Role: Primary Mentor  
 Direct costs: \$10,000

09/01/21 – 08/31/22 (Matthew Sacchet)  
 2021 McLean Dorris Family Pilot Translational Award  
*Multi-level Mechanisms of Mindfulness-based Interventions for Depression*  
 Role: Primary Mentor  
 Direct costs: \$5,000

09/01/21 – 08/31/22 (Zachary Millman)  
 2021 Joseph and Susan Gatto Foundation Award for Excellence in Imaging, Drug Abuse, and Psychiatric Research  
*Stress and Reward Neurobiology in Adolescents and Young Adults at Clinical High-risk for Psychosis*  
 Role: Co-Mentor  
 Direct costs: \$10,000

**Report of Local Teaching and Training**

**Teaching of Students in Courses**

University of Zurich, Switzerland

1996 – 1998 Lecturer on Electrophysiology, University Hospital of Psychiatry, Zurich  
 1990 – 1993 Teaching Assistant in Neurophysiology, M.-C. Hepp-Reymond, Ph.D., Brain Research Institute, University of Zurich

Harvard University

<b>Year</b>	<b>Course Title</b>	<b>Location/Enrollment</b>
2002-2003	Psych 2450. <i>Affective and Social Neuroscience</i> Graduate Seminar (n = 8)	Harvard University 2-hr sessions/wk, 12 wks
	Psych 1808. <i>Neurobiological Aspects of Psychopathology</i> Undergraduate Lecture Course (n = 8)	Harvard University Two 1.5-hr sessions/wk, 12 wks
2003-2004	Psych 2450. <i>Affective and Social Neuroscience</i> Graduate Seminar (n = 8)	Harvard University 2-hr sessions/wk, 12 wks
	Psych 1808. <i>Neurobiological Aspects of Psychopathology</i> Undergraduate Lecture Course (n = 12)	Harvard University Two 1.5-hr sessions/wk, 12 wks
	Psych 1855. <i>Mood Disorders</i> Upper Undergraduate Seminar (n = 6)	Harvard University 2-hr sessions/wk, 12 wks

	Psych 3200. <i>Research Seminar in Experimental Psychopathology/Clinical Psychology</i> (n = 10)	Harvard University 1-hr sessions/wk, 24 wks
2005-2006	Psych 18. <i>Abnormal Psychology</i> Undergraduate Lecture Course (n = 88)	Harvard University Two 1.5-hr sessions/wk, 12 wks
	Psych 1855. <i>Mood Disorders</i> Upper Undergraduate Seminar (n = 8)	Harvard University 2-hr sessions/wk, 12 wks
	Psych 2450. <i>Affective and Social Neuroscience</i> Graduate Seminar (n = 8)	Harvard University 2-hr sessions/wk, 12 wks
	Psych 3200. <i>Research Seminar in Experimental Psychopathology/Clinical Psychology</i> (n = 8)	Harvard University 1-hr sessions/wk, 24 wks
2006-2007	Psych 18. <i>Abnormal Psychology</i> Undergraduate Lecture Course (n = 54)	Harvard University Two 1.5-hr sessions/wk, 12 wks
	Psych 1855. <i>Mood Disorders</i> Upper Undergraduate Seminar (n = 13)	Harvard University 2-hr sessions/wk, 12 wks
	Psych 2450. <i>Affective and Social Neuroscience</i> Graduate Seminar (n = 3)	Harvard University 2-hr sessions/wk, 12 wks
	Psych 3200. <i>Research Seminar in Experimental Psychopathology/Clinical Psychology</i> (n = 8)	Harvard University 1-hr sessions/wk, 24 wks
	Psych 2851r. <i>Affective Neuroscience: Research Seminar</i> Undergraduate Lab Course (n = 4)	Harvard University 1-hr sessions/wk, 12 wks
2008-2009	Psych 1808. <i>Neurobiological Aspects of Psychopathology</i> Undergraduate Lecture Course (n = 18)	Harvard University Two 1.5-hr sessions/wk, 12 wks
	Psych 2441. <i>Clinical Neuroscience</i> Upper-level Undergraduate Seminar (n = 18)	Harvard University 2-hr sessions/wk, 13 wks
	Psych 2851r. <i>Affective Neuroscience: Research Seminar</i> Undergraduate Lab Course (Fall: n = 5, Spring: n = 4)	Harvard University 1-hr sessions/wk, 13 wks
	Psych 3200. <i>Research Seminar in Experimental Psychopathology/Clinical Psychology</i> (n = 11)	Harvard University 1-hr sessions/wk, 24 wks
2009-2010	Psych 2441. <i>Clinical Neuroscience</i> Upper-level Undergraduate Seminar (n = 8)	Harvard University 2-hr sessions/wk, 13 wks
	Psych 2851r. <i>Affective Neuroscience: Research Seminar</i> Undergraduate Lab Course (Fall: n = 6, Spring: n = 3)	Harvard University 1-hr sessions/wk, 13 wks
	Psych 1855. <i>Mood Disorders</i> Upper Undergraduate Seminar (n = 17)	Harvard University 2-hr sessions/wk, 13 wks
2013-2014	Psych 18. <i>Abnormal Psychology</i> Undergraduate Lecture Course (n = 107)	Harvard University Two 1.5-hr sessions/wk, 12 wks
2016-2017	Psych 18. <i>Abnormal Psychology</i> Undergraduate Lecture Course (n = 96)	Harvard University Two 1.5-hr sessions/wk, 12 wks

#### Harvard University Extension School

2003-2004	Psyc E-2450: <i>Affective and Social Neuroscience</i> Master of Liberal Arts Degree Candidates (n = 15)	Harvard Extension School 2-hr sessions/wk, 15 wks
	Psyc E-1855: <i>Mood Disorders</i> Master of Liberal Arts Degree Candidates (n = 15)	Harvard Extension School 2-hr sessions/wk, 15 wks
2005-	Psyc E-2450: <i>Affective and Social Neuroscience</i>	Harvard Extension School

2006	Master of Liberal Arts Degree Candidates (n = 15)	2-hr sessions/wk, 15 wks
2006-2007	Psyc E-1855: <i>Mood Disorders</i> Master of Liberal Arts Degree Candidates (n = 15)	Harvard Extension School 2-hr sessions/wk, 15 wks
2008-2009	Psyc E-2441: <i>Clinical Neuroscience</i> Master of Liberal Arts Degree Candidates (n = 15)	Harvard Extension School 2-hr sessions/wk, 15 wks

2009-2010	Psyc E-2441: <i>Clinical Neuroscience</i> Master of Liberal Arts Degree Candidates (n = 14)	Harvard Extension School 2-hr sessions/wk, 15 wks
	Psyc E-1855: <i>Mood Disorders</i> Master of Liberal Arts Degree Candidates (n = 6)	Harvard Extension School 2-hr sessions/wk, 15 wks

### Harvard Medical School

2010	Clinical Investigator Training Program (CITP), Beth Israel Deaconess Medical Center, Boston Junior faculty at HMS & affiliated hospitals (n = 15)	Harvard Medical School Lecture on the <i>Neuroscience of Depression</i>
2013	Harvard Clinical and Translational Science Center, "Imaging in Neuroscience" course Junior faculty at HMS & affiliated hospitals (n = 105)	Harvard Medical School Lecture on the <i>Use of PET Imaging in Psychiatry</i>
2017	NEUROBIO 319QC: <i>Neurobiology of Psychiatric Disease: From Bench to Bedside</i> HMS graduate students (n = 10)	Harvard Medical School Lecture on the <i>Neurobiology of Depression</i>
2019	NEUROBIO 319QC: <i>Neurobiology of Psychiatric Disease: From Bench to Bedside</i> HMS graduate students (n = 15)	Harvard Medical School Lecture on the <i>Neurobiology of Depression</i>

### Laboratory and Other Research Supervisory and Training Responsibilities

#### Research Assistants

<i>Period</i>	<i>Name</i>	<i>After leaving the lab</i>	<i>Current position</i>
2002-2004	Allison Jahn (Harvard)	Graduate Student, University of Wisconsin-Madison (Clinical Psychology)	Licensed clinical psychologist
2002-2006	James O'Shea (Harvard)	Graduate Student, University of California-Berkeley (Vision Science)	Engineering Specialist, Albany Engineered Composites
2004-2006	Kyle G. Ratner (Harvard)	Graduate Student, New York University (Social Neuroscience)	Assistant Professor, UC Santa Barbara
2006-2008	Jeffrey Birk (Harvard)	Graduate Student, Tufts University (Clinical Psychology)	Instructor, Columbia University Medical Center
2006-2008	Elena Goetz (Harvard)	Graduate Student, Duke University (Clinical Psychology)	Post-doctoral fellow, Stanford University
2008-2010	Sunny Dutra (Harvard)	Graduate Student, Yale University (Clinical Psychology)	Assistant Professor, William James College
2010-2012	Breanna Glaeser (McLean)	Parsons School of Design, Masters in Strategic Design and	Freelance Researcher & Strategist

		Management	
2010-2013	Andrew Cohen (McLean)	Graduate Student, Smith College (Social Work)	Social Worker
2012-2014	Samuel Douglas (McLean)	Graduate Student (Physical Therapy)	Graduate Student
2013-2015	Miranda Beltzer (McLean)	Graduate Student, University of Virginia (Clinical Psychology)	Graduate Student
2013-2015	Franziska Goer (McLean)	Graduate Student, University of Manchester, UK	Graduate Student
2014-2016	Manon Ironside (McLean)	Graduate Student, University of California-Berkeley (Clinical Psychology)	Graduate Student
2014-2016	Malavika Mehta (McLean)	University of Chicago, Medical School	Medical School Student
2015-2017	Rachel Clegg (McLean)	Graduate Student, SUNY Albany (Clinical Psychology)	Graduate Student
2016-2018	Emilia Cardenas (McLean)	Graduate Student, Vanderbilt University (Clinical Psychology)	Graduate Student
2016-2018	Min Su Kang (McLean)	Graduate Student, University of Pennsylvania (Clinical Psychology)	Graduate Student
2016-2018	Nara Nascimento (McLean)	Good Shepherd Community Care	Quality Assurance Specialist
2016-2018	Ashleigh Rutherford (McLean)	Graduate Student, Yale University (Clinical Psychology)	Graduate Student
2018-2020	Micah Breiger (McLean)	Medical Student, Harvard Medical School	Medical School Student
2018-2020	Devon Brunner (McLean)	Graduate Student, Southern Methodist University (Clinical Psychology)	Graduate Student
2018-2020	Amelia Moser (McLean)	Graduate Student, University of Colorado-Boulder (Clinical Psychology)	Graduate Student
2019-2021	Jessica Duda (McLean)	Graduate Student, Yale University (Clinical Psychology)	Graduate Student
2019-2021	Rachel Lobien (McLean)	Graduate Student, Boston College (Social Work)	Graduate Student
2020-2021	Madeline Bailey (McLean)	Unknown	
2020-2021	Yinru Long (McLean)	Graduate school applications	Graduate Student
2020-2021	Genevieve Nowicki (McLean)	Graduate Student, Northeastern University (Applied Psychology)	Graduate Student
2020-	Kaylee Null (McLean)	Current Research Assistant	

2021-	Jacob Blank (McLean)	Current Research Assistant	
2021-	Shiba Esfand (McLean)	Current Research Assistant	
2021-	Emily Johns (McLean)	Current Research Assistant	
2021-	Jason Scott	Current Research Assistant	
2021-	David Steinberger (McLean)		

### Harvard University

<b>Years</b>	<b>Type of Responsibility/Location</b>	<b>Level of Effort</b>
2002-2010	Supervision of 5 post-doctoral research fellows, 6 graduate students, and 10 research assistants in affective, cognitive and clinical neuroscience, functional neuroimaging, high-density electrophysiology, clinical psychology and experimental psychopathology, Department of Psychology, Harvard University	Daily mentorship
2002-2012	Dissertation Committee Member for 13 Graduate Students, Department of Psychology, Harvard University 2002/2003: <i>Zachariah Jonasson, Kristin Vickers</i> 2005/2006: <i>Alison Harris, Pearl Chiu, Avgusta Shestyuk</i> 2007/2008: <i>Sadia Najmi, Christen Deveney (*), Laura Phillips</i> 2008/2009: <i>Avram Holmes (*)</i> 2009/2010: <i>Ryan Bogdan (*), Hannah Reese</i> 2010/2011: <i>Jason Angel</i> 2011/2012: <i>Lisa Berghorst (*)</i> (*) Primary Mentor	4 hours per week for 6 weeks
2002-2010	Reader for 4 Master-level Students, Harvard University 2002/2003: <i>Christen Deveney</i> , Psychology Department 2002/2003: <i>Avniel Ghuman</i> , Biophysics Department 2005/2006: <i>Hannah Reese</i> , Psychology Department 2008/2009: <i>Amitai Shenhav</i> , Psychology Department	6 hours per week for 2 weeks
2002-2010	Primary Advisor for 7 Undergraduate Honors Theses, Department of Psychology, Harvard University 2004/2005: <i>Erika Cowman (*)</i> (Recipient of Psychology Faculty Prize award for "Senior honors thesis of outstanding quality") 2006/2007: <i>Tiffany Meites (*), Petra Pajtas (*), Patricia Pringle (*), Katherine Steele (*)</i> 2008/2009: <i>Yuliya Nikolova (*)</i> (Recipient of 2009 Thomas Temple Hoopes Prize for Excellence In The Work of Undergraduates) 2010/2011: <i>Samantha Connolly (*)</i> (*) Recipient of Harvard College Research Program Award	3 hours per week
2002-2006	Thesis Reader, Undergraduate Honors Theses, Department of Psychology, Harvard University 2002/2003: <i>Emily Adkins</i>	6 hours per week for 2 weeks

	2003/2004: <i>Kristy Benoit, Caitlin Ferriter, Chetan Irwin, David Stahl</i> 2005/2006: <i>Shana Franklin, Arin Keyser, Kim Emiko Ono, Matthew Wallenstein</i>	
2002-2010	Supervision for 20 students enrolled in Undergraduate Supervised Research (910r), Department of Psychology, Harvard University (8 recipients of Harvard College Research Program Award; 2 recipients of Mind-Brain-Behavior Research Award)	1 hour per week

Harvard Medical School

2011-	<i>Poornima Kumar, Ph.D.</i> , Assistant Professor, McLean Hospital/HMS Primary Mentor, NARSAD Young Investigator Award (2x); HMS Livingston Fellowship Award; HMS Eleanor & Miles Shore; NIMH R21	1 hour per week
2013-	Primary Mentor, Undergraduate Honors Theses, Department of Neurobiology/Psychology/Chemistry, Harvard University <i>Pragya Kakani</i> (2013 – 2014) [2014 Thomas Temple Hoopes Prize for Excellence In The Work of Undergraduates; John E. Dowling Award for the Best Undergraduate Neurobiology Thesis in the Class of 2014) <i>Stephanie Deccy</i> (2014 – 2016) [HCRP] <i>Melissa Yuan</i> (2014 – 2016) [HCRP] <i>Isobel Green</i> (2015 – 2017) [PRISE, HCRP, Psychology Faculty Prize] PRISE = Harvard College Program for Research in Science and Engineering HCRP = Harvard College Research Program	2 hours per month
2016-	<i>Emily Belleau, Ph.D.</i> , Instructor, McLean Hospital/HMS Primary Mentor, NIMH K23, Klingenstein Third Generation Fellowship Award in Depression; The Adam Corneel Young Investigator Award; Kaplen Fellowship on Depression, HMS; Livingston Fellowship Award, HMS	2 hours per week
2018-	<i>Jennifer Fanning, Ph.D.</i> , Instructor, McLean Hospital/HMS Primary Mentor, NARSAD Young Investigator Award; Co-mentor, NIMH K23	1 hour per week
2019-	<i>Adrienne Romer, Ph.D.</i> , Post-doctoral Fellow, McLean Hospital Primary Mentor, NIMH Post-doctoral NRSA, The Adam Corneel Young Investigator Award, McLean Hospital	1 hour per week
2019-	<i>Matthew Sacchet, Ph.D.</i> , Instructor, McLean Hospital/HMS Primary Mentor, The Phyllis and Jerome Lyle Rappaport Mental Health Research Fellowship (2x), NARSAD Young Investigator Award	1 hour per week
20190	<i>Steven Lamontagne, M.A.</i> , Visiting Graduate Student, Queens University Primary Mentor, Rossano Mind, Brain & Behavior Pre-Doctoral Summer Fellowship, McLean Hospital	1 hour per week
2020-	<i>Rotem Dan, Ph.D.</i> , Post-doctoral Fellow, McLean Hospital	1 hour per week
2020-	<i>Manuel Kuhn, Ph.D.</i> , Post-doctoral Fellow, McLean Hospital	1 hour per week

2004, 2006, 2007, 2008: Nominated for Everett S. Mendelsohn Excellence in Mentoring Award, Graduate Student Council, Harvard University (Honorable Mention)

### Formally Supervised Trainees

<b>Year</b>	<b>Name and degrees / Current position / Specific Accomplishments of Trainee</b>
<i>A. Post-doctoral Fellow/Faculty/Psychiatry Residents, McLean Hospital/Harvard Medical School</i>	
2006-2014	<i>Daniel G. Dillon, Ph.D.</i> (Instructor of Psychiatry, HMS) Associate Professor of Psychiatry, McLean Hospital & Harvard Medical School 24 peer-reviewed manuscripts, 3 book chapters, 41 abstract/conference presentations Awards: NIMH Post-doctoral NRSA; NARSAD Young Investigator Award; NIMH K99
2009-2013	<i>Pia Pechtel, Ph.D.</i> (Instructor of Psychiatry, HMS) Wellcome Trust Research Fellow, University of Exeter, Exeter, UK 12 peer-reviewed manuscripts, 22 abstract/conference presentations Awards: Postdoctoral Fellowship, German Research Foundation; NARSAD Young Investigator Award; The O'Keefe Family Junior Investigator Award For Excellence In Imaging Research
2010-2017	<i>Randy Auerbach, Ph.D.</i> (Assistant Professor, HMS) Associate Professor (with tenure), Columbia University 9 peer-reviewed manuscripts, 23 abstract/conference presentations Awards: NIMH K23; HMS Kaplen Fellowship on Depression; Klingenstein Third Generation Fellowship Award in Depression; Adam Corneel Young Investigator Award, McLean Hospital; Alfred Pope Award Recipient, McLean Hospital
2011-2015	<i>Michael Treadway, Ph.D.</i> (Instructor of Psychiatry, HMS) Associate Professor (with tenure), Department of Psychology, Emory University 7 peer-reviewed manuscripts, 2 book chapters, 16 abstract/conference presentations Awards: NIMH K99; Adam Corneel Young Investigator Award; NARSAD Young Investigator Award
2012-2016	<i>Roe Admon, Ph.D.</i> (Instructor of Psychiatry, HMS) Senior Lecturer, Department of Psychology, Haifa University 9 peer-reviewed manuscripts, 15 abstract/conference presentations Awards: NARSAD Young Investigator Award; Adam Corneel Young Investigator Award, McLean Hospital
2013-2016	<i>Roselinde Kaiser, Ph.D.</i> (Post-doctoral Fellow, HMS) Assistant Professor, Department of Psychology, University of Colorado-Boulder 7 peer-reviewed publications, 18 abstract/conference presentations Awards: NIMH Post-doctoral NRSA; The Phyllis and Jerome Lyle Rappaport Mental Health Research Fellowship, McLean Hospital
2013-2017	<i>Alexis Whitton, Ph.D.</i> (Instructor of Psychiatry, HMS) NHMRC Early Career Fellow, University of Sydney 23 peer-reviewed publications, 2 book chapters, 26 abstract/conference presentations Awards: Andrew P. Merrill Memorial Research Fellow Award, McLean Hospital; Sir Keith Murdoch Fellowship, American Australian Association; NARSAD Young Investigator Award; CJ Martin Early Career Biomedical Fellowship, National Health and Medical Research Council
2013-2019	<i>Bradford Reich, M.D.</i> (Assistant Clinical Professor, McLean Hospital) Assistant Clinical Professor, McLean Hospital 1 peer-reviewed publications, 1 abstract/conference presentation Awards: NARSAD Young Investigator Award
2013-2021	<i>Christian Webb, Ph.D.</i> , (Post-doctoral Fellow, Instructor, Assistant Professor, HMS) Associate Professor of Psychiatry, McLean Hospital/HMS 20 peer-reviewed publications, 2 book chapters, >20 abstract/conference presentations Awards: NIMH Post-doctoral NRSA; NIMH K23; Klingenstein Third Generation Fellowship Award in Depression; The Adam Corneel Young Investigator Award, McLean Hospital; NARSAD Young Investigator Award (2x); Alfred Pope Award Recipient, McLean Hospital; Partners Innovation



	Discovery Grant
2014-2016	<i>Callie McGrath, Ph.D.</i> (Post-doctoral Fellow, HMS) Private sector (Deloitte Consulting) 8 abstract/conference presentations Awards: Kaplen Fellowship on Depression; HMS Livingston Fellowship Award
2015-2016	<i>Jennifer Gatchel, M.D., Ph.D.</i> (Instructor of Psychiatry, HMS) Awards: Andrew P. Merrill Memorial Research Fellowship (with Dr. Brent Forester)
2015-2017	<i>David Sturman, M.D., Ph.D.</i> (Psychiatry Resident, MGH/McLean Hospital) 1 abstract/conference presentation
2016-2018	<i>Stefanie Nickels, Ph.D.</i> , (Post-doctoral Fellow, McLean Hospital/HMS) 3 peer-reviewed publications, 9 abstract/conference presentation
2016-2021	<i>Maria Ironside, DPhil</i> , Instructor, McLean Hospital/HMS Associate Investigator, Laureate Institute for Brain Research, Tulsa 5 peer-reviewed publications, >10 abstract/conference presentations Awards: Rappaport Mental Health Research Fellowship, McLean Hospital; Alfred Pope Award Recipient, McLean Hospital
2018-2021	<i>Hans Schroder, Ph.D.</i> , Post-doctoral Fellow, McLean Hospital Clinical Lecturer and Postdoctoral Fellow, Department of Psychiatry; Postdoctoral Fellow, Center for Bioethics and Social Sciences in Medicine, University of Michigan 2 peer-reviewed publications, 12 abstract/conference presentations Awards: Andrew P. Merrill Memorial Research Fellow Award, McLean Hospital
2018-2021	<i>Yuen Ang, DPhil</i> , Post-doctoral Fellow, McLean Hospital Scientist I, Institute of High Performance Computing, A*Star, Singapore 9 peer-reviewed publications, 5 abstract/conference presentations Awards: Dorris Translational Research Pilot Award, McLean Hospital; Kaplen Fellowship on Depression, Harvard Medical School; Livingston Fellowship Award, Harvard Medical School; Brain & Behavior Research Foundation Young Investigator Award
<i>B. Post-doctoral Fellow, Primary Advisor, Department of Psychology, Harvard University</i>	
2006-2008	<i>Diane L. Santesso, Ph.D.</i> Research Assistant Professor, University of Waterloo, Waterloo, Ontario 8 peer-reviewed manuscripts, 6 abstract/conference presentations Awards: Postdoctoral Fellowship Award, Natural Sciences and Engineering Research Council of Canada
2009	<i>Marie-Anne Vanderhasselt, Ph.D.</i> Professor (tenured), Department of Experimental Clinical and Health Psychology, Ghent University 1 peer-reviewed manuscript Awards: National Science Foundation, Flanders/Belgium
<i>C. Graduate Student, Primary Advisor, Department of Psychology, Harvard University</i>	
2003-2009	<i>Avram J. Holmes, Ph.D.</i> Assistant Professor, Department of Psychology, Yale University 16 peer-reviewed manuscripts, 1 book chapter, 22 abstract/conference presentations Awards: Pre-doctoral NRSA recipient
2003-2010	<i>Ryan Bogdan, Ph.D.</i> Associate Professor, Department of Psychology, Washington University in St. Louis 15 peer-reviewed manuscripts, 1 book chapter, 23 abstract/conference presentations Association for Psychological Science, Rising Stars in Psychological Science Award
2004-2006	<i>Pearl H. Chiu, Ph.D.</i> (with Dr. Patricia Deldin) Associate Professor, Virginia Tech Carilion School of Medicine and Research Institute

	1 peer-reviewed manuscript, 1 abstract/conference presentation
2004-2008	<i>Christen M. Deveney, Ph.D.</i> (with Dr. Patricia Deldin) Associate Professor, Department of Psychology, Wellesley College 5 peer-reviewed manuscripts, 6 abstract/conference presentations Awards: Pre-doctoral NRSA recipient
2006-2012	<i>Lisa H. Berghorst, Ph.D.</i> Psychology Associate, Alvord, Baker, & Associates, LLC, Rockville, MD 3 peer-reviewed manuscripts, 1 chapter, 12 abstract/conference presentation
2008-2011	<i>Alexander J. Millner, Ph.D.</i> Post-doctoral Fellow, Department of Psychology, Harvard University 1 peer-reviewed manuscript, 2 abstract/conference presentation

### **Formal Teaching of Peers**

- 2012 *Depression, Anxiety and Stress*, CME Conference, Harvard Medical School, Department of Continuing Education, September 7-8, 2012, Boston, Massachusetts (Course Directors: Scott L. Rauch, Diego A. Pizzagalli, Shelly F. Greenfield, Christopher M. Palmer)
- 2014 *Depression, Anxiety and Stress*, CME Conference, Harvard Medical School, Department of Continuing Education, September 5-6, 2014, Boston, Massachusetts (Course Directors: Scott L. Rauch, Diego A. Pizzagalli, Christopher M. Palmer)
- 2020 *How Technology May Transform Treatment of Mood & Anxiety Disorders*, Depression and Anxiety Division Fall Workshop, October 14, 2020, McLean Hospital” (Workshop Organizers: Diego A. Pizzagalli, Kerry Ressler, Jane Eisen)

### **Invited Presentations and Courses**

#### **Local Invited Presentations**

*No presentations below were sponsored by outside entities*

- 1999 Invited lecturer, “Psychometric Methods”, University of Wisconsin-Madison, March, 1999, Madison, WI, USA
- 2002 Grand Rounds, Department of Psychiatry, Massachusetts General Hospital, September 2002, Boston, MA, USA
- 2002 Invited speaker, Social and Affective Neuroscience Series, Department of Psychology, Harvard University, November, 2002, Cambridge, MA, USA
- 2004 Grand Rounds, Harvard Medical School Division on Addictions Roundtable, January, 2004, Cambridge, MA, USA
- 2007 Invited speaker, “Depression: Clues from Affective Neuroscience”, Robert Wood Johnson Healthy & Society Seminar, Harvard School of Public Health, May 10, 2007, Boston, MA, USA
- 2008 Invited talk, “Neuroimaging Studies of Reward Processing in Major Depression”, Depression Clinical Research Program, Massachusetts General Hospital, July 9, 2008, Boston, MA, USA
- 2009 Invited speaker, Robert Wood Johnson Health & Society Seminar, Harvard School of Public Health, March 5, 2009, Boston, MA, USA
- 2009 Invited speaker, Children’s Hospital Boston, Division of Developmental Medicine, March 12, 2009, Boston, MA, USA
- 2010 Invited Speaker, Research Speaker Series, Neuroimaging Center, McLean Hospital,

- Belmont, MA, USA, September 13, 2010
- 2010 Invited Speaker, Clinical Investigator Training Program (CITP), Beth Israel Deaconess Medical Center, Boston, MA, USA, October 12, 2010
- 2010 Invited Speaker, Brain Mapping Seminar, Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Boston, MA, USA, October 20, 2010
- 2010 Grand Rounds, McLean Hospital, Belmont, MA, USA, November 4, 2010
- 2011 Psychiatric Genetics and Translational Research Seminar, Center for Human Genetic Research, Massachusetts General Hospital. Boston, MA, USA, December 13, 2011
- 2012 Grand Rounds, Massachusetts General Hospital, Department of Psychiatry, Boston, MA, USA, March 15, 2012
- 2012 Faculty, The 4th Annual Massachusetts General Hospital Colloquium On Depression: The Core Role of Fatigue in Depressive Disorders and the Use of Biomarkers for Personalized Treatment, Boston MA, June 2, 2012. (Topic: Apathy and Anhedonia in Depression).
- 2012 *Depression, Anxiety and Stress*, Harvard Medical School, Department of Continuing Education, September 7-8, 2012, Boston, Massachusetts (Topic: “New Horizons: Research Endeavors”)
- 2013 MGH Psychiatry Academy Virtual Grand Rounds Series, Boston MA, USA, May 1, 2013.
- 2014 Invited Speaker, Nuclear Medicine and Molecular Imaging (NMMI) Speaker Series, Massachusetts General Hospital, Boston, MA, USA, March 14, 2014.
- 2014 *Depression, Anxiety and Stress*, CME Conference, Harvard Medical School, Department of Continuing Education, September 5-6, 2014, Boston, Massachusetts (Topic: “Depression, Anxiety and Stress: An Overview of the Field”)
- 2014 Pfizer Neuroscience Seminar Series, Cambridge, MA, USA, November 12, 2014
- 2015 Alkermes Neuroscience Talks, Waltham, MA, USA, March 23, 2015.
- 2016 McLean Hospital National Council (Topic: “New Frontiers in Depression Research: Clues from McLean’s Brain Imaging Center”), Belmont, MA, USA, October 19, 2016.
- 2021 McLean Hospital, Symposium on Racism and Mental Health, Belmont, MA, USA, March 23, 2021.
- 2022 Psychology Department Colloquium, Brandeis University, March 10, 2022
- 2022 Distinguished Speaker, Boston University, Clinical Psychology Program Colloquium, April 17, 2022.

### **Report of Regional, National and International Invited Teaching and Presentations:**

*No presentations below were sponsored by outside entities*

#### **Regional**

- 2003 Invited speaker, “The Functional Neuroanatomy of Depression: Integrating Neuroimaging and Electrophysiological Approaches”, Clinical Colloquium Series, Boston University, November, 2003, Boston, MA, USA
- 2005 Invited speaker, “Toward an Objective Characterization of Depressive Phenotypes: Clues from Translational Approaches”, Clinical Research Training Program, Judge Baker Children’s Center, May 2005, Boston, MA, USA
- 2005 Invited speaker, Affective Science Speaker Series, Affective Science Initiative, Boston

- College, November 21, 2005, Boston, MA, USA
- 2005 Department Colloquium, Brown University, “Toward Objective Characterizations of Depressive Phenotypes: Clues From Affective Neuroscience”, November 30, 2005, Providence, RI, USA
- 2009 Invited speaker, Clinical Psychology Talk Series, Department of Psychology, Yale University, April 30, 2009, New Haven, CT, USA
- 2009 Invited speaker, “The Neuroscience of Emotion: From Reaction to Regulation”, Third Annual Tufts University Conference on Emerging Trends in Behavioral, Affective, Social, and Cognitive (BASC) Neurosciences, Tufts University, June 4-6, 2009, Medford, MA, USA
- 2012 Grand Rounds, National Center for PTSD speaker series, March 16, 2012, Boston, MA, USA
- 2015 Department Colloquium, Department of Psychology, Tufts University, Medford, MA, March 30, 2015.
- 2015 Clinical Current Work Speaker Series, Department of Psychology, Yale University, November 19, 2015.
- 2015 Grand Rounds, Department of Psychiatry and Human Behavior, The Alpert Medical School of Brown University, December 2, 2015.
- 2016 Grand Rounds, Department of Psychiatry, University of Massachusetts Medical School, April 21, 2016.
- 2020 Distinguished Colloquium Speaker, Clinical Psychology, Department of Psychology, Boston University, April 8, 2020 (cancelled due to COVID-19).
- 2020 McLean Neuroscience Seminar, McLean Hospital, May 12, 2020

#### National

- 2000 Invited speaker, Brain Mapping Seminar, UCLA Brain Mapping, UCLA, Los Angeles, CA, USA, October 2000.
- 2002 Invited speaker, Department of Psychology, Harvard University, Cambridge, MA, USA, March 2002.
- 2005 Invited speaker, “Toward an Objective Characterization of Depressive Phenotypes: Insight from Translational Research”, Invited Symposium, “Neural Mechanisms of Emotion-Cognition Interactions: Translation from Basic to Clinical Science” (Chair: Deanna M. Barch, Ph.D.) American Psychological Society, 17th Annual Convention, Los Angeles, CA, USA, May 26-29, 2005.
- 2005 Co-chair and speaker, “Laboratory Measures of Anhedonia in Humans: A Signal Detection Approach”, Invited Symposium, “Towards building translational measures of depression: Objective characterizations of depressive phenotypes and biomarkers in humans and animals” (Co-Chairs: Athina Markou, Diego A. Pizzagalli), American College of Neuropsychopharmacology, 44th Annual Meeting, Waikoloa, Hawaii, USA, December 11-15, 2005.
- 2007 Invited speaker, “Abnormal Responses to Errors in Depression: Behavioral and Electrophysiological Correlates”, Invited Symposium, “Cognitive, Neural, and Genetic Components of Mood-Related and Personality Pathology” (Chair: Charles Sanislow, Ph.D.), American Psychological Society, 19th Annual Convention, Washington D.C., USA, May 24-27, 2007.
- 2007 Departmental Colloquium, “Toward an Objective Characterization of Depressive Phenotypes: Insight from Translational Research”, Neuroscience Seminar Series, The

- Scripps Research Institute, San Diego, CA, USA, May 23, 2007.
- 2007 Invited talk, “Toward Objective Characterizations of Depressive Phenotypes: Clues from Affective Neuroscience”, Mood and Anxiety Disorders Program, National Institute of Mental Health, Bethesda, MD, USA, June 13, 2007.
- 2008 Invited talk, “Toward Objective Characterizations of Depressive Phenotypes: Clues from Affective Neuroscience”, New York State Psychiatric Institute, New York, NY, USA, May 13, 2008.
- 2009 Invited speaker, “The Neuroscience of Major Depressive Disorder: Focus on Anhedonia”, Depression Center Colloquium Series, University of Michigan, Ann Arbor, MI, USA, January 29, 2009.
- 2009 Invited speaker, Winter 2009 Distinguished Seminar Series, Psychology Department, University of Michigan, Ann Arbor, MI, USA, January 28, 2009.
- 2010 Invited speaker, Symposium *Plasticity of the Reward Circuitry in Depression and Stress-Related Disorders* (Chair: Eric Nestler, MD, Ph.D.), 49th Annual Meeting of the American College of Neuropsychopharmacology (ACNP), Miami Beach, FL, USA, December 5-9, 2010.
- 2011 Invited Speaker, Symposium *Abnormalities in Reward-Related Brain Function in Psychopathology: A Research Domain Criteria (RDoC)* (Chair: Robin Nusslock, Ph.D.), 25th Annual Meeting of the Society for Research in Psychopathology, Boston, MA, USA, September 22-25, 2011.
- 2011 William K. Warren Frontiers in Neuroscience Lecture, Laureate Institute for Brain Research, Tulsa, OK, USA, February 28, 2011.
- 2012 Invited speaker, Kendon Smith Lecture Series, Department of Psychology, University of North Carolina at Greensboro, Greensboro, NC, USA, March 22, 2012.
- 2012 Faculty, The 4th Annual Massachusetts General Hospital Colloquium On Depression: *The Core Role of Fatigue in Depressive Disorders and the Use of Biomarkers for Personalized Treatment*, Chicago IL, June 9, 2012. (Professional development for psychiatrists, psychologists, primary care/family physicians, nurses, and residents and fellows). (Topic: *Apathy and Anhedonia in Depression*)
- 2013 Grand Rounds, Department of Psychiatry, Dartmouth-Hitchcock Medical Center, Lebanon, NH, USA, January 8, 2013.
- 2013 Department Colloquium, Department of Psychology, University of Arizona, “*The Neuroscience of Major Depressive Disorder: Focus on Anhedonia*”, Tucson, AZ, USA, April 19, 2013.
- 2013 Invited Speaker, Entertainment Software and Cognitive Neurotherapeutics Society, Los Angeles, CA, March 15-17, 2013.
- 2014 Keynote Speaker, *Spring Symposium on Mood Disorders*, University of Alabama at Birmingham, Birmingham, AL, April 11-12, 2014.
- 2014 Invited speaker, Symposium *The NIMH Research Domain Criteria Initiative: Overview and Exemplars* (Chair: Sarah E. Morris), 28<sup>th</sup> Annual Meeting of the Society for Research in Psychopathology, Evanston, IL, USA, September 18-21, 2014.
- 2014 Co-Chair, Symposium *Identifying Neurocognitive Mechanisms Underlying Depression Across the Lifespan* (Chair: Randy P. Auerbach, Diego A. Pizzagalli), 28<sup>th</sup> Annual Meeting of the Society for Research in Psychopathology, Evanston, IL, USA, September 18-21, 2014.
- 2014 Panelist, *Translational Models for Depression: Anhedonia as a Target*. Annual

- Conference of the National Network of Depression Centers, Chicago, IL, USA, October 22-23, 2014.
- 2014 Co-chair, Symposium “*Understanding the Effects of Stress at the Intersection of Appetitive and Aversive Functions in Disease: Integrating Across Genes, Brain, and Behavior*” (Co-Chairs: Scott Rauch & Diego A. Pizzagalli), American College of Neuropsychopharmacology, 53rd Annual Meeting, Phoenix, AZ, USA, December 7-11, 2014.
- 2014 Speaker, Symposium “*Characterizing Reward Circuitry Dysfunction Across the Mood Disorders Spectrum: Relevance and Predictive Value in Clinical Practice*” (Co-Chairs: Wayne Drevets, Mary Phillips), American College of Neuropsychopharmacology, 53rd Annual Meeting, Phoenix, AZ, USA, December 7-11, 2014.
- 2015 Speaker, Institute of Medicine of the National Academies, “*Enabling Discovery, Development, and Translation for Cognitive Dysfunction in Depression: A Workshop*” (Co-chairs: Thomas Insel, Thomas Laughren), The National Academy of Sciences, Washington, DC, February 24, 2015.
- 2015 Department Colloquium, Department of Psychology and Psychiatry, University of Pennsylvania, Philadelphia, PA, March 18, 2015.
- 2015 Keynote Speaker, Inaugural Event, Center for Affective Neuroscience of Depression and Anxiety, Stony Brook University, Stony Brook, NY, September 9, 2015.
- 2015 Discussant, Symposium, “*Integration of Reward and Social/Circadian Rhythm Model Perspectives in Understanding Mood Disorders*”, Society for Research in Psychopathology, New Orleans, LA, October 15-18, 2015.
- 2015 Chair, Symposium “*Using Neural Connectivity Biomarkers in Major Depressive Disorder (MDD) to Identify Subtypes and Predict Treatment Response*” (Co-Chairs: Diego A. Pizzagalli & Scott Langenecker), American College of Neuropsychopharmacology, 54rd Annual Meeting, Hollywood, FL, USA, December 6-10, 2015.
- 2015 Presenter, Symposium “*The Research Domain Criteria (RDoC) Initiative: New Data across Psychiatric Conditions and Age Groups*” (Co-Chairs: Ellen Leibenluft & Bruce Cuthbert), American College of Neuropsychopharmacology, 54rd Annual Meeting, Hollywood, FL, USA, December 6-10, 2015.
- 2016 Invited speaker and Discussant, National Institute of Mental Health, *Mechanisms of Suicide: Integrating RDoC to inform Novel and Personalized Interventions*, Bethesda, Maryland, June 2-3, 2016.
- 2016 Chair, Symposium *The Network Neuroscience of Mood and Anxiety Disorders*, 30<sup>th</sup> Annual Meeting of the Society for Research in Psychopathology, Baltimore, MD, USA, September 29-October 2, 2016.
- 2016 Discussant, Symposium *Multimodal Predictors of Anhedonia Across the Lifespan* (Chair: Randy Auerbach), 30<sup>th</sup> Annual Meeting of the Society for Research in Psychopathology, Baltimore, MD, USA, September 29-October 2, 2016.
- 2016 Speaker, Rochester Conte Center Symposium, “*Persistent, Maladaptive Behaviors: Why We Make Bad Choices*”, University of Rochester, October 11-13, 2016.
- 2016 Invited Speaker, *RDoC Investigators Meeting*, NIH Neuroscience Center, Bethesda, Maryland, October 17-18, 2016.
- 2017 Distinguished Scientist Lecture, University of Pittsburgh Department of Psychiatry,

- Pittsburgh, PA, February 17, 2017.
- 2017 Grand rounds, Department of Psychiatry, University of California San Diego, San Diego, CA, March 27, 2017.
- 2017 Presenter, Symposium “*Discovery and Evaluation of Neural Translational Measures for Improving Therapeutic Discovery for Mental Disorders*” (Chair: Jared Young), Society of Biological Psychiatry, 72nd Annual Meeting, San Diego, CA, May 18-20, 2017.
- 2017 Neuroscience Graduate Seminar Series, Vanderbilt Kennedy Center for Research on Human Development & Vanderbilt Brain Institute, Vanderbilt University, Nashville, TN, October 18, 2017.
- 2018 Grand rounds, Department of Psychiatry, University of Wisconsin-Madison, Madison, WI, March 9, 2018.
- 2019 Clinical Psychology Colloquium Series, Clinical Psychology Program, Teachers College Columbia University, January 24, 2019.
- 2019 Invited Participant, Computational Psychiatry, Banbury Center, Cold Spring Harbor Laboratory, February 3-6, 2019.
- 2019 Invited Speaker, Department of Psychiatry Research Conference, Johns Hopkins University, March 5, 2019.
- 2019 Keynote Address, 6th Annual Symposium, Conte Center, University of California Irvine, Brain Circuit Development in Health and Disease: The Power of Cross-Species Approaches. University of California Irvine, CA, March 12, 2019.
- 2019 Invited Speaker, Cousins Center Lectures in Psychoneuroimmunology, UCLA Cousins Center for Psychoneuroimmunology, UCLA, Los Angeles, CA, March 14, 2019.
- 2019 Keynote Speaker, Third Congress on Pediatric Irritability and Dysregulation, Burlington, VT, September 26-27, 2019.
- 2021 Grand Rounds, Department of Psychiatry, Mt. Sinai, September 7, 2021.
- 2021 Grand Rounds, Department of Psychiatry, UCLA, October 19, 2021.
- 2021 Cognitive Neuroscience Seminar, Department of Psychology, University of Texas – Austin, October 22, 2021

### **International**

- 2000 Chair, Symposium “Affective and Social Aspects of Face Processing: Integrating Electrophysiological and Brain Imaging Studies”, 40<sup>th</sup> Annual Meeting of the Society for Psychophysiological Research Conference, October 18-22, 2000, San Diego, USA
- 2000 Invited Chair, Symposium “Aspect of Face Processing”, 10<sup>th</sup> World Congress of Psychophysiology, February 8-13, 2000, Sydney, Australia
- 2000 Invited speaker, Annual Scientific Meeting of the British Psychophysiology Society, September, 2000, London, UK
- 2001 Invited speaker, 12<sup>th</sup> World Congress of the International Society for Brain Electromagnetic Topography (ISBET), March 8-10, 2001, Utsunomiya, Japan
- 2001 Invited speaker, Central Institute of Mental Health, December, 2001, Mannheim, Germany
- 2002 Invited Keynote Speaker, Symposium “Electromagnetic Topography”; 13th World Congress of the International Society for Brain Electromagnetic Topography (ISBET), October 27-29, 2002, Naples, Italy

- 2003 Invited speaker, “Mood Disorders across Development: Emerging Insights from Affective Neuroscience”, 36th Annual Meeting of the International Society for Developmental Psychobiology; Sackler Symposium “Mood Disorders in children and adolescents”; November, 2003, New Orleans, LA, USA
- 2004 Invited speaker, “The Role of Frontocingulate Pathways in Major Depression: Integrating Electrophysiological and Neuroimaging Approaches”, Nineteenth Annual Meeting for the Society for Research in Psychopathology; Symposium: Frontal lobe and Psychopathology (Organizer: Sohee Park), October 7-10, 2004, St. Louis, Missouri, USA
- 2005 Invited speaker, “Development of Laboratory-based Measures of Anhedonia in Humans”, 20<sup>th</sup> Annual Meeting of the Society for Research in Psychopathology, October 27-30, 2005, Coral Gables, FL, USA
- 2006 Invited speaker, “Resting anterior cingulate gamma activity and abnormal responses to errors in depression: A source localization high-density EEG study”, Symposium, “Abnormalities of gamma oscillations in neuropsychiatric disorders” (Co-Chairs: Silvana Galderisi and Kevin Spencer) Third Joint ECNS (EEG and Clinical Neuroscience Society) & ISNIP (International Society for Neuroimaging in Psychiatry) Conference, Neuroimaging and Neurophysiology of Psychosis, September 13-17, 2006, Boston, MA, USA
- 2006 Invited Talk, Distinguished Scientific Award for an Early Career Contribution to Psychophysiology, 46th Annual Meeting of the Society for Psychophysiological Research, October 25-29, 2006, Vancouver, BC, Canada
- 2007 Invited Talk, Early Career Award, The EEG & Clinical Neuroscience Society (ECNS), Forth Joint ECNS (EEG and Clinical Neuroscience Society) & ISNIP (International Society for Neuroimaging in Psychiatry) Conference, September 19-23, 2007, Montreal, QC, Canada
- 2008 Chair and Speaker, Symposium, “Neurobiological sequelae of early childhood adversity”; 48th Annual Meeting of the Society for Psychophysiological Research, October 1-5, 2008, Austin, TX, USA
- 2008 Invited speaker, Symposium, *Attentional Control and Executive Processes in Depression and Rumination* (Chairs: Nilly Mor, Eva Gilboa-Schechtman), Association for Behavioral and Cognitive Therapies, 42<sup>nd</sup> Annual Convention, November 13-16, 2008, Orlando, FL, USA
- 2009 Invited speaker, plenary session, 27. Symposium der Fachgruppe Klinische Psychologie und Psychotherapie der Deutschen Gesellschaft für Psychotherapie (DGP), May 23, 2009, Zurich, Switzerland
- 2009 Invited Speaker, Symposium, *Neurobiological Perspectives on the Interplay Between Emotional and Attentional Processing in Depression* (chair: Rudi de Raedt, Ph.D.), Annual Meeting of the International Society for Research on Emotion, August 6-8, 2009, Leuven, Belgium
- 2009 Invited Speaker, Symposium, Genetics in Depression: Cognitive Mechanisms and Life Stress (chair: Ian Gotlib, Ph.D.), 23rd Annual Meeting of the Society for Research in Psychopathology, September 10-13, 2009, Minneapolis, MN, USA
- 2010 Co-Chair and Speaker (Chair: Robin Nusslock), Symposium, “Abnormalities in Reward-Related Neural Circuitry in Mood Disorders”; 65th Annual Meeting of the Society of Biological Psychiatry, May 20-22, 2010, New Orleans, Louisiana, USA



- 2011 Invited Discussant, Roundtable Discussion (topic: *Genetics, Brain, and Behavior*), 51st Annual Meeting of the Society for Psychophysiological Research, September 14-18, 2011, Boston, MA
- 2011 Invited Speaker, Symposium *Neurocognitive Dysfunction in Anxiety and Depression* (Chair: Jason Moser, Ph.D.), 51st Annual Meeting of the Society for Psychophysiological Research, September 14-18, 2011, Boston, MA
- 2012 Invited Speaker, Annual Congress of the Italian Society of Psychopathology, Rome, Italy, February 14-17, 2012
- 2012 Wellcome Trust Centre for Neuroimaging, University College of London, London UK, March 30, 2012.
- 2012 Keynote Speaker, "Symposium: The Use of Neuromodulation for Treating Affective Disorders and Physical Pain," Psychiatric Association of Quebec, Québec, Canada, May 11, 2012; Title: "*The Rostral Anterior Cingulate Cortex as a Biomarker for Treatment Response: A putative Target for Deep Brain Stimulation in Depression?*"
- 2012 Keynote Speaker, International Pharmaco-EEG Society (IPEG), New York, NY, October 18-21, 2012
- 2013 Keynote Speaker, Servier Valdoxan International Expert Board, "*Neuroimaging in Depression: Contributions to Understanding Neural Pathways and Treatment Mechanisms*", Paris, January 22, 2013.
- 2013 Invited Speaker, Distinguished Lecture Series, Department of Psychology, Queen's University, Kingston, ON, Canada, March 22, 2013.
- 2013 Symposium Co-Chair, *Toward Personalizing Treatment for Depression: New Imaging and Physiological Findings*, 68th Annual Meeting of the Society of Biological Psychiatry, San Francisco, CA, May 16-18, 2013.
- 2013 Symposium Co-Chair, *Computational Psychiatry: Emerging Use of Computational Models of Reinforcement Learning in Mood Disorders*, 68<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, San Francisco, CA, May 16-18, 2013.
- 2013 Invited Speaker, Symposium *Using Experimental Neurophysiology to Better Understand Psychopathology: Developments in Schizophrenia, Mood, and Anxiety Disorders* (Chair: Scott Sponheim), 27th Annual Meeting of the Society for Research in Psychopathology, Oakland, CA, USA, September 19-22, 2013.
- 2014 Keynote Speaker, *Neuroscience and Mood* Conference, Canadian Network for Mood and Anxiety Treatments (CANMAT), Toronto, Canada, January 24-25, 2014.
- 2015 Keynote Speaker, 22nd International Symposium on Current issues and Controversies in Psychiatry, Barcelona, Spain, March 6-7, 2015.
- 2015 Invited Speaker, Swiss Memory Workshop, Spiez, Switzerland, August 24-26, 2015.
- 2017 Invited Speaker, European College of Neuropsychopharmacology, Experimental Medicine Network, Validation of Reward Processing tasks, Leiden University, The Netherlands, March 15, 2017.
- 2017 Keynote Speaker, The Cameron Holcombe Wilson Chair RDoC Symposium, University of Toronto, Toronto, Canada, March 22, 2017.
- 2018 Invited Speaker, Department of Psychiatry, University of Zurich, Switzerland, July 6, 2018.
- 2019 Invited Speaker, *Experimental Medicine in Depression*, University of Oxford, Oxford, UK, June 24-25, 2019.
- 2019 Invited Speaker, Department of Psychiatry and Psychotherapy, Medical University of

- Vienna, Austria, June 28, 2019.
- 2019 Keynote Speaker, Depression and Anxiety Forum, Second Xiangya Hospital Changsha, China, September 18, 2019.
- 2021 Invited Speaker, Symposium *Welcome to Mental Health 2.0: Precision Psychiatry – Driving the Future of Mental Health Solutions*. European College of Neuropsychopharmacology, Lisbon, Portugal, October 4, 2021 [Virtual symposium sponsored by Boehringer Ingelheim]
- 2021 Keynote Lecture (*Neurophysiological and Imaging Approaches to Predict Treatment Response in Depression*), 2021 Annual Meeting of the International Pharmacology-EEG Society, October 28, 2021.

### **Report of Technological and Other Scientific Innovations**

- 1) “*Systems and Methods for Predicting Effectiveness in the Treatment of Psychiatric Disorders, including Depression*” [filed April 3, 2006; PCT filed April 3, 2007; International Publication Date: 10/25/2007 (Publication number: WO2007/120480; Application Number: PCT/US2007/008107); Published US Patent Application, Application Number: 20090306534. <http://www.wipo.int/>
- 2) “*Methods For Predicting Effectiveness in the Treatment of Psychiatric Disorders*”, U.S. Provisional Patent Application Serial No. 60/788,615 [filed April 3, 2006]

The technology is currently used by 128 (90 national and 38 international) research groups in the following fields of study:

Anxiety Disorders (1); Brain inflammation; Bulimia; Cannabis Abuse; Childhood Anxiety Disorders; Bipolar Disorder (8 groups); Depression (23); Eating Disorders; Gambling; Impulse Control Disorders; Individual Differences (5); Internet Addiction; Nicotine Abuse (5); Obesity; Parkinson’s Disease (2); Post-Traumatic Stress Disorders (2); Psychosis (3); Schizophrenia (10); Schizotypal Personality Disorder Social Anxiety Disorder; Substance Abuse (2); Video Game Addiction.

- 3) “*Systems and Methods for Treating Depression, Including the Use of Neurobehavioral Tasks*”, [filed 9/24/2009; PCT filed 9/23/2010; International Publication Date: 3/31/2011 (Publication number: WO2011/038124; Application Number: PCT/US2010/050010); <http://www.wipo.int>

### **Report of Education of Patients and Service to the Community**

- 2011 Museum of Science, Boston, MA, USA  
Advisor, Hall of Human Life (provided advice and consultation for a new, permanent exhibit on human biology and health, with a focus on clinical depression)
- 2012 Winchester High School, Winchester, MA, USA  
Outreach activity on the topic “*The Neuroscience of Depression*”

### **Report of Scholarship**

ORCID ID: 0000-0002-7772-1143

H-index: 63 (Clarivate’s Web of Science), 81 (Google Scholar)

Citation sum: 14,324 (without self-citations; Clarivate’s Web of Science), 26,800 (Google Scholar)

**[Highly Cited]** Highly Cited Papers (citations in the top 1% of academic fields (source: Web of Science, accessed: 10/12/2021))

## Research Investigations

1. **Pizzagalli, D.**, Koenig, T., REGARD, M., Lehmann, D. (1998). Faces and emotions: Brain electric field sources during covert emotional processing. *Neuropsychologia*, **36**, 323-332.
2. **Pizzagalli, D.**, REGARD, M., Lehmann, D. (1999). Rapid emotional face processing in the human right and left brain hemispheres. *NeuroReport*, **10**, 2691-2698.
3. **Pizzagalli, D.**, Koenig, T., REGARD, M., Lehmann, D. (1999). Affective attitudes to face images associated with intracerebral EEG source location before face viewing. *Cognitive Brain Research*, **7**, 371-377.
4. **Pizzagalli, D.**, Lehmann, D., Gianotti, L., Koenig, T., Tanaka, H., Wackermann, J., Brugger, P. (2000). Brain electric correlates of strong belief in paranormal phenomena: Intracerebral EEG source and regional Omega complexity analyses. *Psychiatry Research: Neuroimaging*, **100**, 139-154.
5. **Pizzagalli, D.**, Lehmann, D., Koenig, T., REGARD, M., Pascual-Marqui, R.D. (2000). Face-elicited ERPs and affective attitude: Brain electric microstate and tomography analyses. *Clinical Neurophysiology*, **111**, 521-531.
6. Lehmann, D., Faber, P.L., Achermann, P., Jeanmonod, D., Gianotti, L.R., **Pizzagalli, D.** (2001). Brain sources of EEG gamma frequency during volitionally meditation-induced, altered states of consciousness, and experience of the self. *Psychiatry Research: Neuroimaging*, **108**, 111-121.
7. Gianotti, L.L.R., Mohr, C., **Pizzagalli, D.**, Lehmann, D., Brugger, P. (2001). Associative processing and paranormal belief. *Psychiatry and Clinical Neurosciences*, **55**, 595-603.
8. Mohr, C., Graves, R.E., Gianotti, L., **Pizzagalli, D.**, Brugger, P. (2001). Loose but normal: A semantic association study. *Journal of Psycholinguistic Research*, **30**, 475-483.
9. Lavric, A., **Pizzagalli, D.**, Forstmeier, S., Rippon, G. (2001). A double-dissociation of English past-tense production revealed by event-related potentials and low resolution electromagnetic tomography (LORETA). *Clinical Neurophysiology*, **112**, 1833-1849.
10. **Pizzagalli, D.**, Pascual-Marqui, R.D., Nitschke, J.B., Oakes, T.R., Larson, C.L., Abercrombie, H.C., Schaefer, S.M., Koger, J.V., Benca, R.M., Davidson, R.J. (2001). Anterior cingulate activity as a predictor of degree of treatment response in major depression: Evidence from brain electrical tomography analysis. *American Journal of Psychiatry*, **158**, 405-415.
11. **Pizzagalli, D.**, Lehmann, D., Brugger, P. (2001). Lateralized direct and indirect semantic priming effects in subjects with paranormal experiences and beliefs. *Psychopathology*, **34**, 75-80.
12. **Pizzagalli, D.A.**, Lehmann, D., Hendrick, A.M., REGARD, M., Pascual-Marqui, R.D., Davidson, R.J. (2002). Affective judgments of faces modulate early activity (~160 ms) within the fusiform gyri. *NeuroImage*, **16**, 663-677.
13. Silva, J.R., **Pizzagalli, D.A.**, Larson, C.L., Jackson, D.C., Davidson, R.J. (2002). Frontal brain asymmetry in restrained eaters. *Journal of Abnormal Psychology*, **111**, 676-681.
14. **Pizzagalli, D.A.**, Nitschke, J.B., Oakes, T.R., Hendrick, A.M., Horras, K.A., Larson, C.L., Abercrombie, H.C., Schaefer, S.M., Koger, J.V., Benca, R.M., Pascual-Marqui, R.D., Davidson, R.J. (2002). Brain electrical tomography in depression: The importance of symptom severity, anxiety, and melancholic features. *Biological Psychiatry*, **52**, 73-85.
15. **Pizzagalli, D.A.**, Oakes, T.R., Davidson, R.J. (2003). Coupling of theta activity and glucose metabolism in the human rostral anterior cingulate cortex: An EEG/PET study of normal and depressed subjects. *Psychophysiology*, **40**, 939-949.
16. **Pizzagalli, D.A.**, Greischar, L.L., Davidson, R.J. (2003). Spatio-temporal dynamics of brain mechanisms in aversive classical conditioning: High-density event-related potential and brain electrical tomography analyses. *Neuropsychologia*, **41**, 184-194.

17. Lavric, A., **Pizzagalli, D.A.**, Forstmeier, S. (2004). When ‘go’ and ‘nogo’ are equally frequent: ERP components and cortical tomography. *European Journal of Neuroscience*, **20**, 2483-2488.
18. **Pizzagalli, D.A.**, Oakes, T.R., Fox, A.S., Chung, M.K., Larson, C.L., Abercrombie, H.C., Schaefer, S.M., Benca, R.M., Davidson, R.J. (2004). Functional but not structural subgenual prefrontal cortex abnormalities in melancholia. *Molecular Psychiatry*, **9**, 393-405.
19. Oakes, T.R., **Pizzagalli, D.A.**, Hendrick, A.M., Horras, K.A., Larson, C.L., Abercrombie, H.C., Schaefer, S.M., Koger, J.V., Davidson, R.J. (2004). Functional coupling of simultaneous electrical and metabolic activity in the human brain. *Human Brain Mapping*, **21**, 257-270.
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21. **Pizzagalli, D.A.**, Sherwood, R.J., Henriques, J.B., Davidson, R.J. (2005). Frontal brain asymmetry and reward responsiveness: A Source-localization study. *Psychological Science*, **16**, 805-813.
22. **Pizzagalli, D.A.**, Jahn, A.L., O’Shea, J.P. (2005). Toward an objective characterization of an anhedonic phenotype: A Signal-detection approach. *Biological Psychiatry*, **57**, 319-327.
23. Hofmann, S.G., Moscovitch, D.A., Litz, B.T., Kim, H.J., Davis, L.L., **Pizzagalli, D.A.** (2005). The worried mind: autonomic and prefrontal activation during worrying. *Emotion*, **5**, 464-475.
24. **Pizzagalli, D.A.**, Peccoralo, L.A., Davidson, R.J., Cohen, J.D. (2006). Resting anterior cingulate activity and abnormal responses to errors in subjects with elevated depressive symptoms: A 128-channel EEG study. *Human Brain Mapping*, **27**, 185-201.
25. Shackman, A.J., Sarinopoulos, I., Maxwell, J.S., **Pizzagalli, D.A.**, Lavric, A., Davidson, R.J. (2006). Anxiety selectively disrupts visuospatial working memory. *Emotion*, **6**, 40-61.
26. Bogdan, R., **Pizzagalli, D.A.** (2006). Acute stress reduces reward responsiveness: Implications for depression. *Biological Psychiatry*, **60**, 1147-1154.
27. Holmes, A.J., **Pizzagalli, D.A.** (2007). Task feedback effects on conflict monitoring and executive control: Relationship to subclinical measures of depression. *Emotion*, **7**, 68-76.
28. Candrian, M., Farabaugh, A., **Pizzagalli, D.A.**, Baer, L., Fava, M. (2007). Perceived stress and cognitive vulnerability mediate the effects of Personality Disorder comorbidity on treatment outcome in Major Depressive Disorder: A path analysis study. *Journal of Nervous and Mental Disease*, **195**, 729-737.
29. **Pizzagalli, D.A.**, Bogdan, R., Ratner, K.G., Jahn, A.L. (2007). Increased perceived stress is associated with blunted hedonic capacity: Potential implications for depression research. *Behaviour Research and Therapy*, **45**, 2742-2753.
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34. Holmes, A.J., **Pizzagalli, D.A.** (2008). Spatio-temporal dynamics of error processing dysfunctions in Major Depressive Disorder. *Archives of General Psychiatry*, **65**, 179-188.
35. Holmes, A.J., **Pizzagalli, D.A.** (2008). Response conflict and frontocingulate dysfunction in

- unmedicated participants with Major Depression. *Neuropsychologia*, **46**, 2904-2913.
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- anterior cingulate cortex in anhedonia: Integration of resting EEG, fMRI, and volumetric techniques. *NeuroImage*, **46**, 327-337.
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#### Other Peer-Reviewed Publications

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  18. Der-Avakian, A., **Pizzagalli, D.A.** (2018). Translational assessments of reward and anhedonia: A tribute to Athina Markou. *Biological Psychiatry*, **83**, 932-939.
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24. Ang, Y-S., **Pizzagalli, D.A.** (2021). Predictors of treatment outcome in adolescent depression. *Current Treatment Options in Psychiatry*, **8**, 18-28.
25. Lamontagne, S.J., **Pizzagalli, D.A.**, Olmstead, M.C. (2021). Does inflammation link stress to poor COVID-19 outcome? *Stress and Health*, **37**, 401-414.
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#### Commentaries/Letters to the Editor

1. **Pizzagalli, D.A.**, Deveney, C.M. (2005). Impaired hedonic capacity in major depressive disorder: Impact on affiliative behaviors. *Behavioral and Brain Sciences*, **28**, 362-363. [Invited commentary]
2. **Pizzagalli, D.A.** (2005). The role of frontocingulate pathways in the emotion-cognition interface: Emerging clues from depression. *Behavioral and Brain Sciences*, **28**, 214-215. [Invited commentary]
3. **Pizzagalli, D.A.** (2010). The "anhedonia paradox" in schizophrenia: Insights from affective neuroscience. *Biological Psychiatry*, **67**, 899-901. [Invited commentary]
4. Kaiser, R.H, **Pizzagalli, D.A.** (2015). Dysfunctional connectivity in the depressed adolescent brain. *Biological Psychiatry*, **78**, 594-595. [Invited commentary]
5. Krystal, J.H., ... **Pizzagalli, D.A.**, ... (2016). Constance E. Lieber, Theodore R. Stanley, and the enduring impact of philanthropy on psychiatry research. *Biological Psychiatry*, **80**, 84-86. [Invited commentary] (42<sup>nd</sup> author among 64 co-authors ordered alphabetically).
6. **Pizzagalli, D.A.** (2016). Psychobiology of the intersection and divergence of depression and anxiety. *Depression and Anxiety*, **33**, 891-894. [Editorial, Special Issue].
7. **Pizzagalli, D.A.**, Carlezon, W.A., Jr. (2017). Error processing in depressive states: A translational opportunity? *Neuropsychopharmacology Review*, **42**, 372.

8. Ang, YS, **Pizzagalli, D.A.** (2019). Understanding personal control and the brain reward system for psychopathology is challenging but important. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, **4**, 105-107.
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10. Auerbach, R.P, Pagliaccio, D., **Pizzagalli, D.A.** (2019). Towards an improved understanding of anhedonia in youth. *JAMA Psychiatry*, **76**, 571-573.
11. **Pizzagalli, D.A.** (2020). Depression: Harnessing biology and technology for the next generation of Treatments. *Harvard Review of Psychiatry*, **28**, 1-3 [Editorial, Special Issue].
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13. Javaras, K.N., **Pizzagalli, D.A.** (2020). Neural insensitivity to the effects of hunger: A potential mechanism underlying persistent dietary restriction in Anorexia Nervosa? *American Journal of Psychiatry*, **177**, 567-569 [Invited editorial]
14. Wu, W., **Pizzagalli, D.A.**, Trivedi, M.H., Etkin, A. (2021). Reply to: EEG-based model and antidepressant response. *Nature Biotechnology*, **39**, 28-29.
15. **Pizzagalli, D.A.** (2021). A new chapter for Cognitive, Affective & Behavioral Neuroscience. *Cognitive, Affective, & Behavioral Neuroscience*, **21**, 267-268.

#### Edited Books

**Pizzagalli, D.A.**, Der-Avakian, A. (forthcoming). *Anhedonia: Preclinical, Translational, and Clinical Integration*. Current Topics in Behavioral Neurosciences Series, Springer.

#### Book Chapters

1. **Pizzagalli, D.**, Koenig, T., Regard, M., Lehmann, D. (1997). Event-related potential fields and general affective style for presented face images. In: H. Witte, U. Zwiener, B. Schack and A. Doering (Eds.), *Quantitative and topological EEG and MEG analysis*. Jena: Druckhaus Mayer Verlag GmbH, pp. 467-470.
2. Lehmann, D., Koenig, T., **Pizzagalli, D.** (1999). Gedanken und Emotionen im elektrischen Feld des Hirns. In: W. Machleidt, H. Haltenhof und P. Garlipp (Eds.), *Schizophrenie - eine affektive Erkrankung?* Stuttgart: Schattauer, pp. 31-43.
3. Treves, A., **Pizzagalli, D.** (2002). Vigilance and perception of social stimuli: Views from ethology and social neuroscience. In: M. Bekoff, C. Allen and G. Burghardt (Eds.), *The Cognitive Animal: Empirical and Theoretical Perspectives on Animal Cognition*. Cambridge: The MIT Press, pp. 463-469.
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  17. Webb, C.A., **Pizzagalli, D.A.** (2018). Sadness and depression. In: M. Lewis, J. M. Haviland-Jones, and L.F. Barrett (Eds.), *The Handbook of Emotion*, 4th Edition. New York: Guilford, pp. 859-870.
  18. **Pizzagalli, D.A.**, Whitton, A.E., Webb, C.A. (2018). Mood Disorders. In J.N. Butcher, J.M. Hooley (Eds.). *APA Handbook of Psychopathology* (Volume 1; Psychopathology: Understanding, Assessing, and Treating Adult Mental Disorders). American Psychological Association, pp. 403-427.
  19. Whitton, A.E., Treadway, M.T., Ironside, M.L., **Pizzagalli, D.A.** (2019). Neurobiological reward-related abnormalities across mood disorders. In: J. Gruber (Ed.). *The Oxford Handbook of Positive Emotion and Psychopathology*. Oxford University Press, New York, NY, pp. 223-238.

## Theses

### M.S. Thesis

**Pizzagalli, D.** (1995). EEG Reaktivität auf verbale Stimuli im Schlaf [EEG reactivity to verbal stimuli during sleep]. Master Thesis in Psychology, University of Zurich (Institute of Psychology), Zurich, Switzerland.

### Ph.D. Thesis

**Pizzagalli, D.** (1998). Face, Word, and Emotional Processing: Electrophysiological (EEG and ERP) studies on emotions with a focus on personality. Ph.D. Thesis presented to the Faculty of Arts of the University of Zurich, Zurich, Switzerland.

## **Abstracts, Poster Presentations, and Exhibits Presented at Professional Meetings during the past three years**

1. Appleman, L., Bachetti, J., **Pizzagalli, D.A.**, Webb, C.A. (2018, January). The effects of mind wandering on adolescent affect: An ecological momentary assessment study. [Poster presented at McLean Research Day, Belmont, MA, January 18, 2018.]
2. Cardenas, E., Nickels, S., Perlo, S., Kangas, B., Robble, M., Bergman, J., Carlezon, W., **Pizzagalli, D.A.** (2018, January). Paving the way for a cross-species neurophysiological assay: Validation of feedback-related negativity (FRN) as a marker of cognitive flexibility. [Poster presented at McLean Research Day, Belmont, MA, January 18, 2018.]
3. Jiang, Y., **Pizzagalli, D.A.**, Kumar, P. (2018, January). The effects of dopamine on reinforcement learning in depressed individuals. [Poster presented at McLean Research Day, Belmont, MA, January 18, 2018.]
4. Kang, M.S., Ironside, M.A., Rutherford, A., Boyden, S., Olson, D. P., Cusin, C., **Pizzagalli, D.A.** (2018, January). Effect of acute stress on model-based learning in depression. [Poster presented at McLean Research Day, Belmont, MA, January 18, 2018.]
5. Molokotos, E.K., Zegel, M., **Pizzagalli, D.A.**, Janes, A.C. (2018, January). Resting-state network coupling in Major Depressive Disorder during acute nicotine administration. [Poster presented at McLean Research Day, Belmont, MA, January 18, 2018.]
6. Nascimento, N.F., Perlo, S., Richards, C.E., Ironside, M., Zuo, C.S., Du, F., Chen, X., Jensen, J.E., Olson, D.P., Holsen, L.M., Goldstein, J.M., **Pizzagalli, D.A.** (2018, January). Optimizing magnetic resonance spectroscopy protocol for GABA on a 3T Prisma: A methodological overview. [Poster presented at McLean Research Day, Belmont, MA, January 18, 2018.]
7. Perlo, S., Nascimento, N.F., Richards, C.E., Ironside, M., Ludwick, A.M., Becerra, L., Misra, M., Holsen, L.M., Goldstein, J.M., **Pizzagalli, D.A.** (2018, January). Development of a fMRI-compatible acute stress paradigm: Lessons from three pilot studies. [Poster presented at McLean Research Day, Belmont, MA, January 18, 2018.]
8. Robble, M., Kangas, B.D., Nickels, S., Wooldridge, L., Cárdenas, E.F., Perlo, S.L., Bergman, J., Carlezon, W.A., Jr., **Pizzagalli, D.A.** (2018, January). A cross-species neurophysiological assay of cognitive control: Development of a touchscreen-based rodent analog of the Flanker Task. [Poster presented at McLean Research Day, Belmont, MA, January 18, 2018.]
9. Rutherford, A.V., Whitton, A.E., Ironside, M.L., Jensen, J.E., Du, F., Farabaugh, A., Deckersbach, T., Ongur, D., **Pizzagalli, D.A.** (2018, January). Anterior cingulate glutamate levels are linked to abnormal high-frequency resting-state functional connectivity in bipolar disorder. [Poster presented at McLean Research Day, Belmont, MA, January 18, 2018.]

10. Singleton, P., Bondy, E., Stewart, J.G., Webb, C.A., Aguirre, B., Kaplan, C., **Pizzagalli, D.A.**, Auerbach, R.P. (2018, January). Electro cortical reward-related markers among healthy and Borderline Personality Disorder youth. [Poster presented at McLean Research Day, Belmont, MA, January 18, 2018.]
11. Zegel, M.R., Moran, L.V., Olson, D.P., **Pizzagalli, D.A.**, Janes, A.J. (2018, January). Nicotine normalizes cortico-striatal connectivity in non-smokers with Major Depressive Disorder. [Poster presented at McLean Research Day, Belmont, MA, January 18, 2018.]
12. Zhang, B.Y., Kang, M.S., Ironside, M.A., Rutherford, A., Crowley, D., **Pizzagalli, D.A.** (2018, January). Elevated glucocorticoid stress response in major depressive disorder. [Poster presented at McLean Research Day, Belmont, MA, January 18, 2018.]
13. Alvarenga, J.E., Keilp, J., Webb, C., Dillon, D.G., Deldin, P., Alschuler, D.A., Abraham, K., Adams, P., Fava, M., McGrath, P., Oquendo, M.A., Trivedi, M., Weissman, M., **Pizzagalli, D.A.**, Bruder, G.E. (2018, March). Cognitive performance in patients having Major Depressive Disorder (MDD) and healthy controls: Word fluency and psychomotor speed findings in the multisite EMBARC study. [Poster to be presented at the 108th Annual Meeting of the American Psychopathological Association, New York, NY, March 1-3, 2018.]
14. Du, F., Chen, X., Fan, X., Hu, Y., Zuo, C., Gabrieli, S., Holt, D., Gong, Q., Yang, Y., **Pizzagalli, D.A.**, Ongur, D. (2018, May). Regional GABA concentrations modulate inter-network resting-state functional connectivity. [Poster presented at the 73rd Annual Meeting of the Society of Biological Psychiatry (SOBP) in New York, NY, May 10-12, 2018.]
15. Giles, M., Cooper, C., Jha, M., Chin-Fatt, C., Grannemann, B., **Pizzagalli, D.A.**, Webb, C., Etkin, A., Trombello, J., Ali, A., Chase, H., Phillips, M., McInnis, M., Carmody, T., Adams, P., Parsey, R., McGrath, P., Weissman, M., Kurian, B., Fava, M., Trivedi, M. (2018, May). Reward behavior disengagement: A novel, objective, and prognostic measure of anhedonic behavior in Major Depression. [Poster presented at the 73rd Annual Meeting of the Society of Biological Psychiatry (SOBP) in New York, NY, May 10-12, 2018.]
16. Ironside, M., Amemori, K., McGrath, C., Kang, M.S., Curry, J., Etkin, A., Graybiel, A.M., **Pizzagalli, D.A.** (2018, May). The neurocircuitry of approach-avoidance decisions in depression: Towards a cross species model. [Poster presented at the 73rd Annual Meeting of the Society of Biological Psychiatry (SOBP) in New York, NY, May 10-12, 2018.]
17. Kayser, J., Tenke, C.E., Petkova, E., Wong, L.Y.X., Wickramaratne, P., Alschuler, D.M., Alvarenga, J.E., Abraham, K., Pechtel, P., Webb, C.A., Dillon, D.G., Deldin, P., Cooper, C., Trombello, J., McGrath, P.J., Fava, M., Oquendo, M.A., Trivedi, M.H., Weissman, M.M., **Pizzagalli, D.A.**, Bruder, G.E. (2018, May). Loudness Dependency of Auditory Evoked Potentials (LDAEP) as a differential predictor of antidepressant treatment response in Major Depressive Disorder (MDD): Results from the sertraline/placebo-controlled EMBARC study. [Poster presented at the 73rd Annual Meeting of the Society of Biological Psychiatry (SOBP) in New York, NY, May 10-12, 2018.]
18. Keilp, J., Alvarenga, J., Webb, C., Dillon, D., Deldin, P., Alschuler, D., Abraham, K., Adams, P., Fava, M., McGrath, P., Oquendo, M., Trivedi, M., Weissman, M., **Pizzagalli, D.A.**, Bruder, G. (2018, May). Cognitive performance predictors of response to antidepressants in the 2nd treatment phase of the multisite EMBARC study: Word fluency and psychomotor speed findings. [Poster presented at the 73rd Annual Meeting of the Society of Biological Psychiatry (SOBP) in New York, NY, May 10-12, 2018.]
19. Molokotos, E., Zegel, M., **Pizzagalli, D.A.**, Janes, A. (2018, May). A Preliminary evaluation of nicotine's impact on functional connectivity in Major Depressive Disorder. [Poster presented at

- the 73rd Annual Meeting of the Society of Biological Psychiatry (SOBP) in New York, NY, May 10-12, 2018.]
20. Perlo, S., Nascimento, N.F., Richards, C.E., Kang, M.S., Ironside, M., Ludwick, A.M., Becerra, L., Misra, M., Holsen, L.M., Goldstein, J.M., **Pizzagalli, D.A.** (2018, May). Development of an fMRI-compatible acute stress paradigm: Optimization and initial results. [Poster presented at the 73rd Annual Meeting of the Society of Biological Psychiatry (SOBP) in New York, NY, May 10-12, 2018.]
  21. Richards, C.E., Holsen, L.M., Perlo, S., Nascimento, N.F., Ironside, M., Misra, M., **Pizzagalli, D.A.**, Goldstein, J.M. (2018, May). Validation of an MR imaging-compatible acute stress paradigm in healthy young adults. [Poster presented at the 73rd Annual Meeting of the Society of Biological Psychiatry (SOBP) in New York, NY, May 10-12, 2018.]
  22. Rutherford, A.V., Whitton, A.E., Ironside, M.L., Jensen, J.E., Du, F., Farabaugh, A., Deckersbach, T., Öngür, D., **Pizzagalli, D.A.** (2018, May). Rostral anterior cingulate glutamate levels are linked to abnormal high-frequency resting-state functional connectivity in Bipolar Disorder. [Poster presented at the 73rd Annual Meeting of the Society of Biological Psychiatry (SOBP) in New York, NY, May 10-12, 2018.]
  23. South, C., Jha, M., Rush, A.J., Cao, J., Cooper, C., Trombello, J., Phillips, M.L., Carmody, T., Parsey, R., Oquendo, M.A., McGrath, P., Bruder, G., Tenke, C.E., Weissman, M., **Pizzagalli, D.A.**, Kurian, B., Fava, M., Trivedi, M. (2018, May). Identifying characteristics of placebo responders in Major Depression from the EMBARC study. [Poster presented at the 73rd Annual Meeting of the Society of Biological Psychiatry (SOBP) in New York, NY, May 10-12, 2018.]
  24. Whitton, A., Green, A., **Pizzagalli, D.A.**, Williams, J., Brunette, M. (2018, May). Potent dopamine D2 receptor antagonists block the reward-enhancing effects of nicotine in smokers with schizophrenia. [Poster presented at the 73rd Annual Meeting of the Society of Biological Psychiatry (SOBP) in New York, NY, May 10-12, 2018.]
  25. Yang, J., Zhang, M., Ahn, H., Zhang, Q., Jin, T., Li, J., Nemesure, M., Joshi, N., Jiang, H., Miller, J., Ogden, T., Petkova, E., Milak, M.S., Sublette, M.E., Sullivan, G., Trivedi, M., Weissman, M., McGrath, P., Fava, M., Kurian, B., **Pizzagalli, D.A.**, Cooper, C., McInnis, M., Oquendo, M., Mann, J.J., Parsey, R., DeLorenzo, C. (2018, May). Development and evaluation of a multimodal marker of Major Depressive Disorder. [Poster presented at the 73rd Annual Meeting of the Society of Biological Psychiatry (SOBP) in New York, NY, May 10-12, 2018.]
  26. Yang, X., Nickerson, L., Kumar, P., **Pizzagalli, D.A.**, Ma, X. (2018, May). Limbic and frontal cortex gray matter structural covariance networks in unmedicated Major Depressive Disorder. [Poster presented at the 73rd Annual Meeting of the Society of Biological Psychiatry (SOBP) in New York, NY, May 10-12, 2018.]
  27. Yasemin Eren, C., Sancak, S., Yazıcı, D., Pinar Uysal, S., Whitton, A., Rutherford, A., **Pizzagalli, D.A.**, Yapıcı Eser, H. (2018, May). Effect of GLP-1 agonists use on cognitive and affective functioning in type 2 diabetes mellitus patients: A preliminary study. [Poster presented at the 73rd Annual Meeting of the Society of Biological Psychiatry (SOBP) in New York, NY, May 10-12, 2018.]
  28. Bauer, C., Siless, V., Wang, J., Goncalves, M., Frosch, I., Hubbard, N.A., Vergara, G., Conroy, K., Vaz De Souza, F., Rosso, I., Hirshfeld-Becker, D.R., Henin, A., Hofmann, S., **Pizzagalli, D.**, Ghosh, S., Auerbach, R., Yendiki, A., Gabrieli, J.D.E., Whitfield-Gabrieli, S. Boston Adolescent Neuroimaging of Depression and Anxiety Consortium: Preliminary resting-state results (2018, June). [Poster to be presented at the Organization for Human Brain Mapping, Singapore, June 17-21, 2018.]

29. Hubbard, N.A., Goncalves, M., Frosch, I., Siless, V., Wang, J., Vergara, G., Conroy, K., Bauer, C., Vaz De Souza, F., Rosso, I., Hirshfeld-Becker, D.R., Henin, A., Hofmann, S., **Pizzagalli, D.**, Ghosh, S., Auerbach, R., Yendiki, A., Gabrieli, J.D.E., Whitfield-Gabrieli, S. Boston Adolescent Neuroimaging of Depression and Anxiety Consortium: Preliminary task fMRI results. (2018, June). [Poster to be presented at the Organization for Human Brain Mapping, Singapore, June 17-21, 2018.]
30. Siless, V., Wang, J., Vergara, G., Hubbard, N.A., Bauer, C., Goncalves, M., Frosch, I., Conroy, K., Vaz De Souza, F., Rosso, I., Hirshfeld-Becker, D.R., Henin, A., Hofmann, S., **Pizzagalli, D.**, Ghosh, S., Gabrieli, J.D.E., Whitfield-Gabrieli, S., Auerbach, R., Yendiki, A. Boston Adolescent Neuroimaging of Depression and Anxiety Consortium: Preliminary diffusion MRI results. (2018, June). [Poster to be presented at the Organization for Human Brain Mapping, Singapore, June 17-21, 2018.]
31. Rizvi S.J., McInerney, S., Bermans, Y., Salomons, T., **Pizzagalli, D.A.**, Turecki, G., Kennedy, S.H. Reward learning contingencies as a marker of high suicide risk. [Poster presented at 17th European Symposium on Suicide & Suicidal Behaviour, September 5-8, 2018, Ghent, Belgium.]
32. Lawlor, V., Singleton, P., Webb, C.A., Dillon, D., **Pizzagalli, D.A.**, Auerbach, R.P. (2018, September). Drift-diffusion modeling of reward learning in depressed adolescents: Baseline, reliability, and treatment effects. [Poster presented at the 32nd Annual Meeting of the Society for Research in Psychopathology, Indianapolis, IN, September 20-23, 2018.]
33. Rutherford, A.V., Whitton, A.E., Ironside, M.L., Farabaugh, A., Deckersbach, T., Ongur, D., **Pizzagalli, D.A.** (2018, September). Abnormal high-frequency resting-state functional connectivity differentiates major depressive disorder from bipolar disorder. [Poster presented at the 32nd Annual Meeting of the Society for Research in Psychopathology, Indianapolis, IN, September 20-23, 2018.]
34. Mirin, N., Baker, J., Dillon, D., Vogel, S., Rutter, L., **Pizzagalli, D.A.**, Germine, L. (2018, September). Development of an RDoC field test battery for capturing neurocognition and digital phenotypes. [Poster presented at the 32nd Annual Meeting of the Society for Research in Psychopathology, Indianapolis, IN, September 20-23, 2018.]
35. Tan, A., Costi, S., Morris, L.S., Van Dam, N.T., Kautz, M., Whitton, A.E., Friedman, A.K., Collins, K.A., Ahle, G., **Pizzagalli, D.A.**, Iosifescu, D.V., Nestler, E.J., Han, M-H, Murrough, J.W. (2018, October). Effects of the KCNQ channel opener ezogabine on functional connectivity of the ventral striatum and clinical symptoms in patients with major depressive disorder. [Oral presentation at the Annual Meeting of the American Society of Clinical Psychopharmacology (ASCP), New York, October 6-7, 2018.]
36. Frosch, I., Hubbard, N.A., Goncalves, M., Siless, V., Wang, J., Vergara, G., Conroy, K., Bauer, C., Vaz De Souza, F., Kaczmarzyk, J.R., Rosso, I., Hirshfeld-Becker, D.R., Henin, A., Hofmann, S., **Pizzagalli, D.A.**, Ghosh, S., Auerbach, R., Yendiki, A., Gabrieli, J.D.E., Whitfield-Gabrieli, S. (2018, November). fMRI activation predicts depressive episodes in highly-comorbid adolescents. [Poster presented at the Annual Meeting of the Society for Neuroscience, San Diego, CA, November 3-7, 2018.]
37. Robble, M., Nickels, S., Kangas, B., Wooldridge, L., Cárdenas, E.F., Perlo, S.L., Bergman, J., Carlezon, W.A. Jr., **Pizzagalli, D.A.** (2018, November). A novel cross-species neurophysiological assay of cognitive control: Development of a touchscreen-based rodent Flanker Task. [Poster presented at the Annual Meeting of the Society for Neuroscience, San Diego, CA, November 3-7, 2018.]

38. Pedersen, M.L., Ironside, M., McGrath, C.L., Amemori, K-I., Kang, M., Graybiel, A.M., Frank, M.J., **Pizzagalli, D.A.** (2018, November). Computational phenotyping of brain-behavioral relationships underlying approach-avoidance decision making in major depressive disorder. [Poster presented at the Annual Meeting of the Society for Neuroscience, San Diego, CA, November 3-7, 2018.]
39. Breiger, M., Schroder, H., Perlo, S., Cardenas, E., Guthrie, S., Nickels, S., **Pizzagalli, D.A.** (2019, January). Comparing two methods of calculating post-error slowing: A neurobehavioral investigation. [Poster presented at McLean Research Day, Belmont, MA, January 30, 2019.]
40. Brunner, D., Ironside, M.A., Kang, M.S., Rutherford, A.V., Boyden, S.D., Olson, D.P., Cusin, C., **Pizzagalli, D.A.** (2019, January). Effect of acute stress on model-based learning in depression. [Poster presented at McLean Research Day, Belmont, MA, January 30, 2019.]
41. Israel, E., Belleau, E.L. **Pizzagalli, D.A.**, Webb, C.A. (2019, January). The Relation between mind-wandering, brain functional connectivity, and negative affect in adolescents: An ecological momentary assessment study. [Poster presented at the McLean Hospital Research Day, Belmont, MA, January 30, 2019.]
42. Mirin, N.L., Baker, J.T., Dillon, D.G., Vogel, S.C., Rutter, L.A., **Pizzagalli, D.A.**, Germine, L. (2019, January). Development of an RDoC field test battery for capturing neurocognition and digital phenotypes. [Poster presented at McLean Research Day, Belmont, MA, January 30, 2019.]
43. Moser, A.D., Perlo, S., Richards, C.E., Nascimento, N.F., Holsen, L.M., Ironside, M., Du, F., Zuo, C., Ang, Y., Misra, M., Goldstein, J.M.\* , **Pizzagalli, D.A.\*** (2019, January). Preliminary findings on the effect of stress and GABA on reward sensitivity. [Poster presented at McLean Research Day, Belmont, MA, January 30, 2019.] \*Equal senior contribution
44. Perlo, S., Richards, C.E., Moser, A.D., Nascimento, N.F., Holsen, L.M., Ironside, M., Misra, M., Goldstein, J.M.\* , **Pizzagalli, D.A.\*** (2019, January). Neural correlates of stress circuitry in major depressive disorder in young adults. [Poster presented at McLean Research Day, Belmont, MA, January 30, 2019.] \*Equal senior contribution
45. Robble, M., Nickels, S., Kangas, B.D., Schroder, H., Wooldridge, L., Cárdenas, E.F., Perlo, S.L., Bergman, J., Carlezon, W.A. Jr., **Pizzagalli, D.A.** (2019, January). Development of a touchscreen-based Flanker Task in rats for translational studies of cognitive control. [Poster presented at McLean Research Day, Belmont, MA, January 30, 2019.]
46. Israel, E., Belleau, E.L. **Pizzagalli, D.A.**, Webb, C.A. (2019, March). The neural and affective correlates of mind-wandering in adolescents: An ecological momentary assessment study. [Poster presented at the annual meeting of the Society for Affective Science, Boston, MA, March 21-23, 2019.]
47. Dillon, D.G., Lawlor, V.M., Webb, C.A., Wiecki, T.V., Frank, M.J., Trivedi, M., **Pizzagalli, D.A.** (2019, March). Dissecting the impact of depression on decision making. [Poster presented at the annual meeting of the Society for Affective Science, Boston, MA, March 21-23, 2019.]
48. Boukezzi, S., Dillon, D.G., Cerit, H., Durham, L., Ryder, B., Goldstein, J.M., **Pizzagalli, D.A.**, Holsen, L.M. (2019). Sex differences in stress-induced reward processing in Major Depressive Disorder (MDD). [Poster presented at the 74th Annual Meeting of the Society of Biological Psychiatry (SOBP) in Chicago, IL, May 16-18, 2019.]
49. Germine, L., Dillon, D.G., Baker, J., Passell, E., Vogel, S., Scheuer, L., Mirin, N., Rutter, L., **Pizzagalli, D.A.** (2019, May). Digital cognitive assessment: Results from the Testmybrain NIMH RDoC field test battery report. [Poster presented at the 74th Annual Meeting of the Society of Biological Psychiatry (SOBP) in Chicago, IL, May 16-18, 2019.]



50. Lawlor, V., Webb, C., Wiecki, T., Frank, M., Trivedi, M., **Pizzagalli, D.A.**, Dillon, D. (2019, May). Dissecting the impact of depression on decision-making during a Probabilistic Reward Task. [Poster presented at the 74th Annual Meeting of the Society of Biological Psychiatry (SOBP) in Chicago, IL, May 16-18, 2019.]
51. Lee, Y-J., Anteraper, S.A., Hubbard, N., Yendiki, A., **Pizzagalli, D.A.**, Auerbach, R., Hofmann, S.G., Whitfield-Gabrieli, S. (2019, May). Intrinsic brain network implicated in the behavioral inhibition system of adolescents with depression/anxiety. [Poster presented at the 74th Annual Meeting of the Society of Biological Psychiatry (SOBP) in Chicago, IL, May 16-18, 2019.]
52. **Pizzagalli, D.A.\***, Ironside, M.\*, Amemori, K-I., McGrath, C.L., Kang, M.S., Amemori, S., Dougherty, D., Frank, M.J., Graybiel, A.M. (2019, May). Human and non-human primate investigations of approach-avoidance conflict: Relevance to depression and anxiety disorders. [Poster presented at the 74th Annual Meeting of the Society of Biological Psychiatry (SOBP) in Chicago, IL, May 16-18, 2019.] [\*Co-first author]
53. Punia, K., MacKillop, J., 1,2, Whitton, A.E., **Pizzagalli, D.A.**, Balodis, I.M. (2019, May). A pilot investigation of acute stress effects on reward learning in heavy cannabis users. [Poster presented at the 74th Annual Meeting of the Society of Biological Psychiatry (SOBP) in Chicago, IL, May 16-18, 2019.]
54. Breiger, M., Schroder, H., Perlo, S., Cardenas, E., Nickels, S., **Pizzagalli, D.A.** (2019, May). Feedback improves beural and behavioral error monitoring. [Poster presented at the American Psychological Society Annual Convention, Washington, DC, May 23, 2019.]
55. Perlo, S., Ironside, M., Richards, C.E., Moser, A.D., Nascimento, N.F., Holsen, L.M., Misra, M., Goldstein, J.M.\*, **Pizzagalli, D.A.\*** (2019, May). Neural correlates of stress circuitry in major depressive disorder in young adults. [Poster presented at the American Psychological Society Annual Convention, Washington, DC, May 23, 2019.] \*Equal senior contributions
56. Krystal A., **Pizzagalli, D.A.** et al. (2019, May). NIMH FAST-MAS phase IIa study of the effects of the selective  $\kappa$  opioid antagonist JNJ-67953964 on fMRI ventral striatal activation during the Monetary Incentive Delay Test in anhedonic patients across the Mood and anxiety spectrum disorders. [Oral presentation at the Annual Meeting of the American Society of Clinical Psychopharmacology (ASCP), May 27-31, 2019.]
57. Molokotos, E., Peechatka, A., **Pizzagalli, D.A.**, Janes, A.C. (2019, June). Caudate reactivity to smoking cues is associated with increased response bias to monetary rewards. [Poster presented at the 81<sup>st</sup> Annual Meeting of the College on Problems of Drug Dependence, San Antonio, TX, June 15-19, 2019.]
58. Sperl, M.F.J., Panitz, C., Skoluda, N., Nater, U.M., **Pizzagalli, D.A.**, Hermann, C., & Mueller, E.M. (2019, May). Pharmacological augmentation of exposure therapy: Can long-term fear conditioning and extinction be modulated by the  $\alpha$ 2-adrenoreceptor antagonist yohimbine or by the D2 receptor antagonist sulpiride? [Talk during the Young Scientists Symposium at the Clinical Psychology Meeting of the German Psychological Society (DGPs), Erlangen, Germany, May 29-June 01, 2019.]
59. Pedersen, M.L., Ironside, M., Amemori, K., McGrath, C.L., Kang, M., Graybiel, A.M., Dougherty, D.D., **Pizzagalli D.A.**, Frank, M.J. (2019, September). Computational modeling of cognitive processes underlying approach decisions in non-human primates and patients with major depressive disorder – a translational approach. [Poster presented at the 7th International Symposium on Motivational and Cognitive Control, Berlin, Germany, September 16-18, 2019.]
60. Lovell-Smith, N.M., Israel, E., Beard, C., Christensen, K., Bjorgvinsson, T., **Pizzagalli, D.A.**, Webb, C.A. (2019, September). The relation between cognitive control and depression outcome in

- a naturalistic psychiatric setting. [Poster presented at the annual meeting of the Society for Research in Psychopathology, Buffalo, NY, September 19-22, 2019.]
61. Moser, A.D., Ironside, M., Richards, C.E., Perlo, S., Nascimento, N.F., Holsen, L.M., Misra, M., Goldstein, J.M., **Pizzagalli, D.A.** (2019, September). Altered Functional Connectivity Between Frontal Cortex and Hypothalamic–pituitary–adrenal Axis Under Acute Stress In Major Depressive Disorder. Poster presented at the annual meeting of the Society for Research in Psychopathology, Buffalo, NY, September 19-22, 2019.]
  62. Liu, Y., Admon, R., Belleau, E.M., Kaiser, R.H., Clegg, R., Beltzer, M., Goer, F., Vitaliano, G., Ahammad, P., **Pizzagalli, D.A.** (2019, October). Machine learning identifies large-scale reward-related activity modulated by dopaminergic enhancement in major depression. [Poster presented at the Annual Meeting of the Society for Neuroscience, Chicago, IL, October 19-23, 2019.]
  63. Romoli, B., Prakash, N., Der-Avakian, A., Berretta, S., **Pizzagalli, D.A.**, Dulcis, D. (2019, October). Stress-induced neuroplasticity of nociceptin and its receptor: A mechanism of resilience to stress? [Poster presented at the Annual Meeting of the Society for Neuroscience, Chicago, IL, October 19-23, 2019.]
  64. Robble, M.A., Schroder, H., Branham, M., Wooldridge, L., Breiger, M., Kangas, B.D., Bergman, J., Carlezon, W.A., Jr., **Pizzagalli, D.A.** (2019, October). The effect of modafinil on behavioral and neurophysiological indices of cognitive control in a touchscreen-based rodent Flanker Task. [Poster presented at the Annual Meeting of the Society for Neuroscience, Chicago, IL, October 19-23, 2019.]
  65. Johnson, D., Peckham, A. D., **Pizzagalli, D.A.**, Björgvinsson, T., Beard, C. (2019, October). Validation of ambulatory EEG and mobile cognitive assessment as predictors of impulsive behavior during psychiatric treatment. [Poster presented at the 2019 Technology in Psychiatry Summit, Boston, MA, October 28-29, 2019.]
  66. Neelamegam, R., Yokell, D., Rice, P., **Pizzagalli, D.A.**, El Fakhri, G. (2019, May). Optimization, automation and validation of NOP receptor PET radiopharmaceutical, [<sup>11</sup>C]NOP-1A for human use. *Journal of Nuclear Medicine*, **60** (supplement 1), 637.
  67. Ceniti, A.K., Rizvi, S.J., Chow, T., McInerney, S.K., Bergmans, Y., **Pizzagalli, D.A.**, Salomons, T., Farb, N., Turecki, G., Kennedy, S.H. (2019, October). Interaction between psychache, physical pain, reward responsivity, anhedonia, and suicidality in depression. [Poster presented at the Annual Convention of the International Association for Suicide Research, Miami, FL, October 27-30, 2019.]
  68. Israel, E., Belleau, E.L., Forbes, E.E., **Pizzagalli, D.A.**, Webb, C.A. (2019, November). Mind-wandering in adolescents predicts heightened negative affect and aberrant functional connectivity: An ecological momentary assessment study. [Poster presented at the Annual Convention of the Association for Behavioral and Cognitive Therapies, Atlanta, GA., November 21-24, 2019.]
  69. Sperl, M.F.J., Panitz, C., Skoluda, N., Nater, U.M., **Pizzagalli, D.A.**, Hermann, C., Mueller, E.M. (2019, November). Pharmacological modulation of conditioned fear: Alpha-2 adrenoreceptor antagonist yohimbine potentiates fear bradycardia and N170 ERP amplitude. [Poster presented at the EPFL Neuro Symposium “Fear Learning – from neuronal circuits to translation”, Lausanne, Switzerland, November 25-26, 2019].
  70. Benrubi, L., Brunner, D., Ironside, M., Kang, M.S., Boyden, S., Cusin, C., **Pizzagalli, D.A.** (2020, January). Exaggerated cortisol response to stress in remitted depression. [Poster presented at McLean Research Day, Belmont, MA, January 29, 2020.]

71. Breiger, M., Schroder, H., Lobien, R., Nickels, S., Robble, M., Kangas, B., Bergman, J., Carlezon, W., **Pizzagalli, D.A.** (2020, January). Modulating dopamine in a cognitive control task. [Poster presented at McLean Research Day, Belmont, MA, January 29, 2020.]
72. Brunner, D., Belleau, E., Dillon, D., Levine, M., Hayden, E., Boyden, S., Cheung, C., Kang, M.S., El Fakhri, G., Hooker, J., Ma, C., Kaptchuk, T., Fava, M.\*, Cusin, C.\*, **Pizzagalli, D.A.\*** (2020, January). Reward responsiveness in depression and placebo response. [Poster presented at McLean Research Day, Belmont, MA, January 29, 2020.] [\*Equal senior contribution]
73. Duda, J., Ironside, M., Moser, A.D., Perlo, S., Richards, C.E., Nascimento, N., Holsen, L.M., Misra, M., Goldstein, J.M., **Pizzagalli, D.A.** (2020, January). Altered Limbic Functional Connectivity Under Acute Psychosocial Stress in Females with Major Depression. [Poster presented at McLean Research Day, Belmont, MA, January 29, 2020.] [\*Equal senior contribution]
74. Israel, E., Pastro, B., Appleman, L., Forbes, E.E., **Pizzagalli, D.A.**, Webb, C.A. (2020, January). Relation between activation behaviors, avoidance and symptom change in Behavioral Activation therapy for anhedonic adolescents: Disaggregating within-patient and between-patient effects. [Poster presented at McLean Research Day, Belmont, MA, January 29, 2020.]
75. Lobien, R., Scheuer, L., Dillon, D.G., Romer, A., Germine, L., **Pizzagalli, D.A.** (2020, January). Optimization of a web-based version of an objective task probing implicit reward learning. [Poster presented at McLean Research Day, Belmont, MA, January 29, 2020.]
76. Moser, A.D., Ironside, M., Duda, J., Perlo, S., Richards, C.E., Nascimento, N.F., Holsen, L.M., Misra, M., Goldstein, J.M.\*, **Pizzagalli, D.A.\*** (2020, January). Preliminary frontolimbic findings from an independent component analysis among young female adults with a history of depression compared to healthy female adults under acute stress. [Poster presented at McLean Research Day, Belmont, MA, January 29, 2020.] [\*Equal senior contribution]
77. Murray, L., Israel, E., Appleman, L., Lovell-Smith, N., Forbes, E.E., **Pizzagalli, D.A.**, Webb, C.A. (2020, January). Real-world positive and negative affect is associated with neural reactivity during reward and loss processing in adolescents. [Poster presented at McLean Research Day, Belmont, MA, January 29, 2020.]
78. Oanh, L., Wooldridge, L.M., Bergman, J., **Pizzagalli, D.A.**, Kangas, B.D. (2020, January). Characterizing anhedonia in a behavioral assay of reward sensitivity: Empirical validation of a reverse translational approach in rats. [Poster presented at McLean Research Day, Belmont, MA, January 29, 2020.]
79. Pastro, B., Israel, E., Appleman, L., Forbes, E.E., **Pizzagalli, D.A.**, Webb, C.A. (2020, January). Modeling general, shared and patient-specific processes of changes in behavioral activation therapy for anhedonic adolescents. [Poster presented at McLean Research Day, Belmont, MA, January 29, 2020.]
80. Robble, M., Schroder, H., Branham, M., Wooldridge, L., Breiger, M., Kangas, B., Bergman, J., Carlezon, W., **Pizzagalli, D.A.** (2020, January). The effects of modafinil on behavioral and neurophysiological indices of cognitive control in a touchscreen-based rodent Flanker Task. [Poster presented at McLean Research Day, Belmont, MA, January 29, 2020.]
81. Rochat, K., Ironside, M., Brunner, D., Kang, M.S., Boyden, S., Olson, D., Cusin, C., **Pizzagalli, D.A.** (2020, January). Inflammatory response to stress is related to reduced reward responsiveness in Major Depression. [Poster presented at McLean Research Day, Belmont, MA, January 29, 2020.]

82. Wang, K., Zegel, M., Molokotos, E., Moran, L.V., Olson, D.P., **Pizzagalli, D.A.**, Janes, A.J. (2020, January). The acute effects of nicotine on corticostriatal responses to distinct phases of reward processing. [Poster presented at McLean Research Day, Belmont, MA, January 29, 2020.]
83. Stewart, J.G., Kremens, R. T., Begetis, M., Craddock, G., Rowe, M., **Pizzagalli, D.A.**, Auerbach, R.P. (2020, May). Stress exposure in adolescents: Examining links with depression risk and suicide. [Paper accepted for presentation at the Canadian Stress Research Summit Annual Meetings, Toronto, ON, Canada, April 30- May 1, 2020.]
84. Duda, J.M., Ironside, M., Moser, A.D., Perlo, S., Richards, C.E., Nascimento, N., Holsen, L.M., Misra, M., Goldstein, J.M.\* , **Pizzagalli, D.A.\*** (2020, May). Aberrant functional connectivity under psychosocial stress in young adults with lifetime suicidal ideation. [Poster presented at the American Psychological Society Annual Convention, Chicago, IL, May 21-24, 2020.] \*Equal senior contributions. (Conference canceled).
85. Ang, Y.-S., Keilp, J., Webb, C., Dillon, D., Deldin, P., Alschuler, D., Alvarenga, J., McGrath, P., Weissman, M., Parsey, R., Fava, M., Trivedi, M., Bruder, G., **Pizzagalli, D.A.** (2020, May). Cognitive subtypes of depression are associated with response to treatment by sertraline. E-poster accepted to the 75th Annual Meeting of the Society for Biological Psychiatry (SOBP), New York, NY. (Conference canceled). *Biological Psychiatry*, 87, S374.
86. Ceni, A.K., Chow, T., McInerney, S., Foussias, G., Schweizer. T., **Pizzagalli, D.A.**, Harmer. C., McIntyre, R.S., Kennedy, S.H., Rizvi, S.J. (2020, May). Assessing anhedonia and reward processing in depression before and after treatment with desvenlafaxine. E-poster accepted to the 75th Annual Meeting of the Society for Biological Psychiatry (SOBP), New York, NY. (Conference canceled).
87. Kavanaugh, B., Tirrell, E., McLaughlin, N., Sherman. A., Carpenter, L., Festa, E., Grammer, J., Temereanca Ibanescu, S., Oberman, L., **Pizzagalli, D.A.**, Parade, S., Seifer, R., Tyrka, A. (2020, May). Gamma oscillations as a potential marker of cognitive control in childhood psychopathology. E-poster accepted to the 75th Annual Meeting of the Society for Biological Psychiatry (SOBP), New York, NY. (Conference canceled). *Biological Psychiatry*, 87, S175.
88. Morfini, F., Zhang, J., Ji Lee, Y., Nieto Castanon, A., Hubbard, N., Siless, V., Goncalves, M., Frosch, I., Lo, N., Hofmann, S.G., Auerbach, R., **Pizzagalli, D.A.**, Yendiki, A., Gabrieli, J., Whitfield-Gabrieli, S. (2020, May). Resting state connectivity associated with changes in anxiety symptoms in adolescence over one year. E-poster accepted to the 75th Annual Meeting of the Society for Biological Psychiatry (SOBP), New York, NY. (Conference canceled). *Biological Psychiatry*, 87, S332.
89. Murphy, M., Whitton, A., Decy, S., Ironside, M., Beltzer, M., Sacchet, M., **Pizzagalli, D.A.** (2020, May). Abnormal electroencephalographic microstate dynamics are associated with active but not remitted Major Depressive Disorder. E-poster accepted to the 75th Annual Meeting of the Society for Biological Psychiatry (SOBP), New York, NY. (Conference canceled). *Biological Psychiatry*, 87, S137.
90. Murrough, J., Costi, S., Morris, L., Collins, A., Collins. K., Whitton, A., Pizzagalli. D.A., Russo, S. (2020, May). Dynamic peripheral immune profiles and neurocircuit responses to reward in depression. E-poster accepted to the 75th Annual Meeting of the Society for Biological Psychiatry (SOBP), New York, NY. (Conference canceled). *Biological Psychiatry*, 87, S15
91. Neilson, C.R., Peterson, E.C., Kang, M.S., Van Der Feen, J., Aguirre, B., Clegg, R., Goer, F., Esposito E.C., Auerbach, R.P., **Pizzagalli, D.A.**, Kaiser, R.H. (2020, May). Abnormal frontoinsula network connectivity as a marker of maladaptive cognitive styles in adolescents. E-

- poster accepted to the 75th Annual Meeting of the Society for Biological Psychiatry (SOBP), New York, NY. (Conference canceled).
92. Phillips, R.D., Arnold, M., Pisoni, A., Cernasov, P., Kinard, J., Kan, D., Scott, M., Freeman, L., Pfister, C., Kelley, L., Haworth, K., Nagy, G., Oliver, J., Walsh, E., **Pizzagalli, D.A.**, Smoski, M., Dichter, G. S. (2020, May). Behavioral activation treatment improves reward responsiveness on a probabilistic reward task in a transdiagnostic anhedonic sample. E-poster accepted to the 75th Annual Meeting of the Society for Biological Psychiatry (SOBP), New York, NY. (Conference canceled)
  93. Smith, E.E., Pizzagalli, D.A., Deldin, P., McInnis, M.G., Trivedi, M.H., Weissman, M.M., Bruder, G.E., Kayser, J. (2020, May). Identifying a frontal theta network that differentially predicts outcomes of treatment with SSRI or placebo in depression: A CSD-PCA approach to analyze sensor-level EEG connectivity. E-poster accepted to the 75th Annual Meeting of the Society for Biological Psychiatry (SOBP), New York, NY. (Conference canceled). *Biological Psychiatry*, 87, S402.
  94. Whitton, A., Reinen, J., Slifstein, M., Ang, Y-S., McGrath, P., Iosifescu, D., Abi-Dargham, A., **Pizzagalli, D.A.**, Schneier, F. (2020, May). Computational approaches to improving treatment precision for anhedonia. E-poster accepted to the 75th Annual Meeting of the Society for Biological Psychiatry (SOBP), New York, NY. (Conference canceled). *Biological Psychiatry*, 87, S50.
  95. Zhang, J., Morfini, F., Ji Lee, Y., Nieto Castanon, A., Yendiki, A., Hubbard, N., Siless, V., Frosch, I., Goncalves, M., Lo, N., Hofmann, S.G., Auerbach, R., **Pizzagalli, D.A.**, Gabrieli, J., Whitfield-Gabrieli, S. (2020, May). Multimodal brain connectomics predict longitudinal symptom change in adolescent depression. E-poster accepted to the 75th Annual Meeting of the Society for Biological Psychiatry (SOBP), New York, NY. (Conference canceled). *Biological Psychiatry*, 87, S201.
  96. Rogers, V.A., Lamontagne, S.J., Schroder, H.S., Breiger, M., **Pizzagalli, D.A.** (2020, May). Eye blink rate as a proxy for dopamine function. [Poster presented at the Tufts University Undergraduate Research and Scholarship Symposium, Medford, MA, May 11, 2020.]
  97. Sperl, M.F.J., Panitz, C., Skoluda, N., Nater, U.M., Pizzagalli, D.A., Hermann, C., & Mueller, E.M. (2019, October). Noradrenaline potentiates conditioned fear bradycardia, N170, and late positive potential amplitudes [Poster during the virtual conference "Expectation, Perception and Cognition 2020", organized by UNSW School of Psychology, Sydney, Australia, October 1-2, 2020]
  98. Belleau, E.L., Kremens, R., Ang, Y-S., Pisoni, A., Bondy, E., Durham, K., Auerbach, R.P., **Pizzagalli, D.A.** (2020, October). Behavioral and neural indices of reward functioning in adolescents at high familial risk for Major Depressive Disorder. [E-poster presented at the Annual Meeting of the National Network of Depression Centers (NNDC), October 1-2, 2020, Virtual Meeting.]
  99. Dong, D., Ironside, M.A. Belleau, E.L., Yao, S., **Pizzagalli, D.A.** (2020, October). Sex-specific neural responses to acute psychosocial stress in depression. [E-poster presented at the Annual Meeting of the National Network of Depression Centers (NNDC), October 1-2, 2020, Virtual Meeting.]
  100. Lamontagne, S.J., **Pizzagalli, D.A.**, Olmstead, M.C. (2020, October). Inflammation links stress to poor COVID-19 outcome. [E-poster presented at the Annual Meeting of the National Network of Depression Centers (NNDC), October 1-2, 2020, Virtual Meeting.]

101. Nicastrì, C., Gawronski, R., **Pizzagalli, D.A.**, Kumar, P. (2020, October). Impact of COVID-19 on mental health and cognition. [E-poster presented at the Annual Meeting of the National Network of Depression Centers (NNDC), October 1-2, 2020, Virtual Meeting.]
102. Umemoto, A., Panier, L.Y.X., Cole, S.L., Kayser, J., **Pizzagalli, D.A.**, Auerbach, R.P. (2020, October). Resting posterior alpha power in adolescent major depressive disorder. [E-Poster accepted for the Society for Psychophysiological Research Annual Meeting (virtual), October 7-11, 2020.]
103. Stukin, J., Margiotta, K.N., Ryhanych, A.N., Breiger, M., **Pizzagalli, D.A.**, Sacchet, M.D. (2020, October). Mechanisms of mindfulness meditation for Major Depressive Disorder. Technology in Psychiatry Summit (Online), October 28-30, 2020.
104. Belleau, E.L., Kremens, R., Ang, Y-S., Pisoni, A., Bondy, E., Durham, K., Auerbach, R.P., **Pizzagalli, D.A.** (2020, December). Aberrant reward functioning in adolescents at high familial risk for Major Depressive Disorder. [E-poster presented at the 59th Annual Meeting of the American College of Neuropsychopharmacology (ACNP), December 6-9, 2020, Virtual Meeting.] *Neuropsychopharmacology*, 45, Suppl 1, 100.
105. Cohen, J.E., Holsen, L.M., Ironside, M., Moser, A.D., Perlo, S., Richards, C., Duda, J., Nascimento, N.F., Misra, M., **Pizzagalli, D.A.\***, Goldstein, J.M.\* (2020, December). Sex differences in stress response circuitry are present in early adulthood: An fMRI study of healthy young adults. [E-poster presented at the 59th Annual Meeting of the American College of Neuropsychopharmacology (ACNP), December 6-9, 2020, Virtual Meeting. \*Equal senior contribution]. *Neuropsychopharmacology*, 45, Suppl 1, 222.
106. Cusin C., Jahan A. B., Belleau E., Petibon Y., Dillon D., Normandin M., Alpert N. M., El Fakhri G., Hooker J.M., Chao M., Brunner D., Crowley D., **Pizzagalli D.A.\*#**, Fava M.\* (2020, December). Neurobiological underpinnings of placebo response assessed by PET/MR neuroimaging in Major Depressive Disorder. [E-poster presented at the 59th Annual Meeting of the American College of Neuropsychopharmacology (ACNP), December 6-9, 2020, Virtual Meeting. \*Equal senior contribution; #Presenting author]. *Neuropsychopharmacology*, 45, Suppl 1, 101.
107. Der-Avakian, A., Schroder, H., Barnes, S., Mukamel, E., Breiger, M., Nickels, S., Dillon, D., Leutgeb, S., Risbrough, V., **Pizzagalli, D.A.** (2020, December). Translational EEG and behavioral measures of cognitive flexibility in a cross-species (human/rat) Probabilistic Reversal Learning task. [E-poster presented at the 59th Annual Meeting of the American College of Neuropsychopharmacology (ACNP), December 6-9, 2020, Virtual Meeting.] *Neuropsychopharmacology*, 45, Suppl 1, 166.
108. Phillips, R.D., Zürcher, N.R., Walsh, E.C., Cernasov, P.M., Tseng, C., Dharanikota, A., Smith, E., Li, Z., Kinard, J.L., Bizzell, J., Greene, R.K., Freeman, L., Kan, D., Scott, M., Pfister, C., Dillon, D.G., **Pizzagalli, D.A.**, Izquierdo-Garcia, D., Lalush, D., Hooker, J.M., Dichter, G.S. (2020, December). A simultaneous [<sup>11</sup>C]Raclopride positron emission tomography and functional magnetic resonance imaging investigation of striatal dopamine binding in autism. [E-poster presented at the 59th Annual Meeting of the American College of Neuropsychopharmacology (ACNP), December 6-9, 2020, Virtual Meeting.] *Neuropsychopharmacology*, 45, Suppl 1, 117.
109. Robble, M.A., Schroder, H.S., Kangas, B.D., Nickels, S., Breiger, M., Iturra-Mena, A., Perlo, S., Cardenas, E., Bergman, J., Carlezon, W.A., Jr., **Pizzagalli, D.A.** (2020, December). Concordant neurophysiological signatures of cognitive control in humans and rats. [E-poster presented at the 59th Annual Meeting of the American College of Neuropsychopharmacology (ACNP), December 6-9, 2020, Virtual Meeting.] *Neuropsychopharmacology*, 45, Suppl 1, 166-167.

110. Sacchet, M.D., **Pizzagalli, D.A.** (2020, December). Relations among individualized brain systems patch sizes and diagnosis, symptoms, and treatment outcomes in major depressive disorder: Preliminary results. [E-poster presented at the 59th Annual Meeting of the American College of Neuropsychopharmacology (ACNP), December 6-9, 2020, Virtual Meeting.] *Neuropsychopharmacology*, 45, Suppl 1, 313.
111. Balkind, E., Pastro, B., Israel, E., Appleman, L., Forbes, E.E., **Pizzagalli, D.A.**, Webb, C.A. (2021, January). Processes of symptom change in behavioral activation therapy for anhedonic adolescents: Modeling general, shared and patient-specific relations. [E-Poster presented at McLean Research Day, Belmont, MA, January 27, 2021.]
112. Dong, D., Ironside, M.A., Belleau, E.L., Yao, S., **Pizzagalli, D.A.** (2021, January). Sex-specific neural responses to acute psychosocial stress in depression. [E-Poster presented at McLean Research Day, Belmont, MA, January 27, 2021.]
113. Duda, J.M., Moser, A.D., Ironside, M., Null, K., Perlo, S., Richards, C.E., Nascimento, N., Holsen, L.M., Zuo, C.S., Du, F., Chen, X., Misra, M., Goldstein, J.M., **Pizzagalli, D.A.** (2021, January). GABA and reward learning under stress in major depression. [E-Poster presented at McLean Research Day, Belmont, MA, January 27, 2021.]
114. Javaras, K., Patriarca, L., Porter, L.L., Meyer, L.E., Muse, S.M., Hudson, J.I., **Pizzagalli, D.A.**, Greenfield, S.F. (2021, January). A new database of snack food images for research on eating behavior.
115. Li, J., **Pizzagalli, D.A.**, Kumar, P. (2021, January). Resting state functional connectivity in current and remitted depression. [E-Poster presented at McLean Research Day, Belmont, MA, January 27, 2021.]
116. Lobien, R., Nowicki, G.P., Linton, S.R., **Pizzagalli, D.A.** (2021, January). Individual differences in trait attentional control and neural activation patterns during a cognitive task. [E-Poster presented at McLean Research Day, Belmont, MA, January 27, 2021.]
117. Long, Y., Belleau, E., Dillon, D.G., Petibon, Y., Normandin, M., Alpert, N.M., El Fakhri, G., Hooker, J.M., Ma, C., Jahan, A.B., Meyer, A.K., Brunner, D., Crowley, D., Cusin, C.\*, **Pizzagalli, D.A.\***, Fava M.\* (\*shared senior authorship). A multimodal investigation on gender differences in reward processing of individuals with major depressive disorder. [E-Poster presented at McLean Research Day, Belmont, MA, January 27, 2021.]
118. Margiotta, K., Stukin, J., Ryhanych, A., Breiger, M., **Pizzagalli, D.A.**, Sacchet, M. (2021, January). Mechanisms of mindfulness meditation for Major Depressive Disorder. [E-Poster presented at McLean Research Day, Belmont, MA, January 27, 2021.]
119. Murray, L., Lawrence, H.R., Pastro, B., Balkind, E.G., Israel, E., Lovell-Smith, N., Forbes, E.E., **Pizzagalli, D.A.**, Webb, C.A. (2021, January). Neural response to loss is associated with real-world rumination in adolescents. [E-Poster presented at McLean Research Day, Belmont, MA, January 27, 2021.]
120. Null, K., Ironside, M.A., Brunner, D.L., Kang, M.S., Nagaswami, M.V., **Pizzagalli, D.A.** (2021, January). The impact of emotional abuse on stress reactivity in current and remitted depression. [E-Poster presented at McLean Research Day, Belmont, MA, January 27, 2021.]
121. Pastro, B., Balkind, E., Israel, E., Appleman, L., Forbes, E.E., **Pizzagalli, D.A.**, Webb, C.A. (2021, January). Skill utilization in Behavioral Activation therapy for anhedonic adolescents: within-patient and between-patient effects on symptom change. [E-Poster presented at McLean Research Day, Belmont, MA, January 27, 2021.]
122. Robble, M., Schroder, H.S., Kangas, B.D., Nickels, S., Breiger, M., Ittura-Mena, A., Luc, O., Perlo, S., Cardenas, E., Bergman, J., Carlezon, W.A., Jr., **Pizzagalli, D.A.** (2021, January).

- Concordant neurophysiological signatures of cognitive control in humans and rats. [E-Poster presented at McLean Research Day, Belmont, MA, January 27, 2021.]
123. Samuel, A.R., **Pizzagalli, D.A.**, Kumar, P. (2021, January). Perfusion imaging in Major Depressive Disorder. [E-Poster presented at McLean Research Day, Belmont, MA, January 27, 2021.]
  124. Smith, C., Brunner, D., Ironside, M.A., **Pizzagalli, D.A.** (2021, January). Serum IL-6 concentrations in major depressive disorder/anxiety comorbidities. [E-Poster presented at McLean Research Day, Belmont, MA, January 27, 2021.]
  125. Zhu, C., Song, X., Chen, X., Yuksel, C., Yuan, J., **Pizzagalli, D.A.**, Forester, B., Ongur, D., Du, F. (2021, January). Bioenergetics and abnormal functional connectivity in schizophrenia and bipolar I disorders. [E-Poster presented at McLean Research Day, Belmont, MA, January 27, 2021.]
  126. Wieman, S.T., Arditte Hall, K.A., Pineles, S.L., **Pizzagalli, D.A.**, Liverant, G.I. (2021, March). Diminished reward learning in veterans with co-occurring insomnia and depression. [E-poster presented at the 41st Annual Meeting of the Anxiety and Depression Association of America, March 18-19, 2021.]
  127. Dillon, D.G., Lazarov, A., **Pizzagalli, D.A.**, Schneier, F.R. (2021, April). Improved accuracy, higher reward totals, and faster evidence accumulation after gaze-contingent music reward therapy in adults with Social Anxiety Disorder. [E-poster presented at the Annual Meeting of the Society for Biological Psychiatry, April 29-May 1, 2021.]
  128. Piccolo, M., Belleau, E., Holsen, L.M., Pizzagalli, D.A., Javaras, K.N. (2021, April). Alterations in resting-state functional activity and connectivity for Major Depressive Disorder eating phenotypes. [E-poster presented at the Annual Meeting of the Society for Biological Psychiatry, April 29-May 1, 2021.]
  129. Romer, A., Pizzagalli, D.A. (2021, April). The role of executive dysfunction in relations between brain structure and general psychopathology in adult healthy controls and cross-diagnostic patients. [E-poster presented at the Annual Meeting of the Society for Biological Psychiatry, April 29-May 1, 2021.]
  130. Wang, S., Ceniti, A., Kennedy, S.H., McInerney, S., Bergmans, Y., Pizzagalli, D.A., Salomons, T., Farb, N., Turecki, G., Rizvi, S.J. (2021, April). Identifying the resting state neural predictors of capability for suicide risk – a focus on pain processing. [E-poster presented at the Annual Meeting of the Society for Biological Psychiatry, April 29-May 1, 2021.]
  131. Lamontagne, S.J., Winters, M.F., Pizzagalli, D.A., Olmstead, M.C. (2021, May). Post-acute sequelae of COVID-19: Evidence of mood and cognitive impairment. [E-poster to be presented at the 2021 Canadian Stress Research Summit, May 6-8, 2021.]
  132. Schroder, H.S., Lamontagne, S., Madarasmi, S., Duda, J.M., Yu, E., Rogers, V., **Pizzagalli, D.A.** (2021, May). Genetic feedback for depression: Limited impacts on neurophysiological cognitive control and treatment expectations. [E-poster to be presented at the 2021 Association for Psychological Science Virtual Conference, May 26-27, 2021.]
  133. Ahn, H., Busler, J.N., Hall, J., Ryder, B., Dillon, D.G., **Pizzagalli, D.A.**, Goldstein, J.M., Holsen, L.M. (2021, May). The association between body mass index and hypothalamus functional connectivity in response to acute psychosocial stress. [E-poster to be presented at the 9th Annual Obesity Research Incubator Session, Brigham Research Institute, May 14, 2021.]
  134. Ahn, H., Busler, J.N., Hall, J., Ryder, B., Dillon, D.G., **Pizzagalli, D.A.**, Goldstein, J.M., Holsen, L.M. (2021, May). The association between body mass index and hypothalamus functional



- connectivity in response to acute psychosocial stress. [E-poster to be presented at 2021 Virtual Convention of the American Psychological Society, May 26-27, 2021.]
135. Romer, A.L., **Pizzagalli, D.A.** (2021, May). Executive function as a prospective predictor and outcome of general psychopathology in the Adolescent Brain Cognitive Development Study. [Flash talk presented at 2021 Virtual Convention of the American Psychological Society, May 26-27, 2021.]
  136. Ruberto, V.L., Null, K., Duda, J.M., Ironside, M., Perlo, S., Richards, C.E., Moser, A.D., Nascimento, N., Holsen, L.M., Misra M., Goldstein, J.M., **Pizzagalli, D.A.** (2021, May). Somatic symptoms and cortisol response in current and past major depressive disorder. [E-poster presented at 2021 Virtual Convention of the American Psychological Society, May 26-27, 2021.]
  137. Schroder, H., Lamontagne, S., Madarasmis, S., Duda, J., Yu, E., Rogers, V., **Pizzagalli, D.A.** (2021, May). Genetic feedback for depression: Limited impacts on neurophysiological cognitive control and treatment expectations. [E-poster presented at 2021 Virtual Convention of the American Psychological Society, May 26-27, 2021.]
  138. Balkind, E.G., Murray, L., Israel, E., Pastro, B., Appleman, L., Lovell-Smith, N., Lukas, S.E., Forbes, E.E., Pizzagalli, D.A., Webb, C.A. (2021, September). Lower positive affect and higher negative affect in adolescent anhedonia is linked to attenuated nucleus accumbens response to reward outcome: A multimodal assessment. [E-poster presented at Annual Conference of the Society for Research in Psychopathology, September 23-26, 2021.]
  139. Dillon, D., Lazarov, A., Pizzagalli, D.A., Schneier, F. (2021, September). Improved accuracy, higher reward totals, and faster evidence accumulation after gaze-contingent music reward therapy in adults with social anxiety disorder. [Oral presentation at Annual Conference of the Society for Research in Psychopathology, September 23-26, 2021.]
  140. Dong, D., Ironside, M., Belleau, E., Yao, S., Pizzagalli, D.A. (2021, September). Sex-specific neural responses to acute psychosocial stress in depression. [E-poster presented at Annual Conference of the Society for Research in Psychopathology, September 23-26, 2021.]
  141. Long, Y., Belleau, E., Dillon, D., Petibon, Y., Normandin, M., Alpert, N., El Fakhri, G., Hooker, J., Chao, M., Jahan, A., Meyer, A., Brunner, D., Crowley, D., Cusin, C.\*, Fava, M.\*, Pizzagalli, D.A.\* (2021, September). Sex differences in reward processing amongst individuals with major depressive disorder: a multimodal investigation. [E-poster presented at Annual Conference of the Society for Research in Psychopathology, September 23-26, 2021.] [equal senior contribution]
  142. Min, S., Milev, R., Pizzagalli, D.A., Kennedy, S., Harkness, K. (2021, September). The relation of stressful life events to reward learning in depression. [E-poster presented at Annual Conference of the Society for Research in Psychopathology, September 23-26, 2021.]
  143. Null, K., Ironside, M., Brunner, D., Kang, M-S., Nagaswami, M., Pizzagalli, D.A. (2021, September). The impact of emotional abuse on stress reactivity in current and remitted depression. [E-poster presented at Annual Conference of the Society for Research in Psychopathology, September 23-26, 2021.] [E-poster presented at Annual Conference of the Society for Research in Psychopathology, September 23-26, 2021.]
  144. Ahn, H., Hall, J., Goldstein, J.M., Dillon, D.G., Pizzagalli, D.A., Holsen, L.M. (2021, November). Homeostatic and mesolimbic network functional connectivity during food reward processing in response to psychosocial stress. [E-poster presented at the Discover Brigham 2021 Meeting, November 3, 2021.]
  145. Phillips, R.D., Walsh, E.C., Lalush, D., Kinard, J.L., Cernasov, P.M., Kelley, L., Campbell, D.B., Dillon, D.G., **Pizzagalli, D.A.**, Izquierdo-Garcia, D., Zürcher, N.R., Tseng, C., Hooker, J.M., Smoski, M.J., Dichter, G.S. (2021, December). Reduced striatal dopamine binding to rewards is

associated with anhedonia severity and recent stress. [E-poster presented at the 60th Annual Meeting of the American College of Neuropsychopharmacology (ACNP), San Juan, Puerto Rico, December 5-8, 2021.]

<i>Additional Conference Presentations Prior to the Last Three Years (1996 – 2017):</i>	280
Total abstracts/conference presentations (1996 – present):	425

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### **Narrative Report of Research and Teaching Contributions**

I am an experimental psychologist and neuroscientist who uses a multi-disciplinary approach to improve our understanding of the psychological, environmental, and neurobiological factors associated with mood disorders, particularly major depressive disorder (MDD). To this end, I rely on an integration of behavioral, electrophysiological, neuroimaging [functional and structural magnetic resonance imaging (MRI), and positron emission tomography (PET)] techniques, and molecular genetics. Moreover, in light of the substantial heterogeneity of depression, I have adopted an endophenotypic approach focused on three cardinal phenotypes of MDD: anhedonia (loss of pleasure), increased stress sensitivity, and negative processing biases. I currently spend 65% of my time on research, and 35% on administration and mentoring/teaching.

Over the past decade I have devoted substantial effort to investigate the neurobiology of anhedonia. In this context, I have developed a laboratory-based assessment of a core component of anhedonia, reward responsiveness (i.e., the ability to modulate behavior as a function of reinforcement history). Using this probabilistic reward task, my mentees and I have found that individuals with elevated depressive symptoms, euthymic individuals at increased risk for depression (owing a past history of MDD or childhood maltreatment), psychiatrically healthy individuals carrying genetic variants previously associated with depression, and unmedicated MDD subjects are all characterized by a reduced ability to modify behavior according to reinforcement history and blunted activation within brain reward pathways (dopaminergic-rich mesocorticolimbic pathways), suggesting that reduced reward responsiveness may be a vulnerability factor for depression. Recently, I have extended this line of work in several important ways. First, based on preclinical studies suggesting that stress exerts depressogenic effects via mesocorticolimbic disruptions, we tested and confirmed the hypothesis that stressors as well as a history of childhood maltreatment blunt reward responsiveness in humans. Second, we evaluated the moderating effects of specific genes on stress-induced anhedonia and the role of dopamine in reward responsiveness. More recently, in collaboration with a group at UCSD, I have developed an animal analogue of the probabilistic reward task, which will allow us to interrogate the molecular underpinnings of anhedonia with more precision. Collectively, these findings suggest that anhedonia is an important endophenotype of depression, and that stress-induced hedonic deficits (and associated dysfunction in brain reward pathways) is a promising candidate mechanism linking stress to depression. Highlighting the impact of this work, more than 130 research groups worldwide are currently using the probabilistic reward task I have developed.

In a second line of work, I have investigated biomarkers of treatment response in depression. This work expands our prior report that pre-treatment resting EEG activity in the rostral anterior cingulate cortex predicted treatment response in MDD 4-6 months later with 89% sensitivity/ specificity. Because a substantial percentage of depressed individuals do not respond to treatment, establishing predictors at early stages of treatment, or even before it begins, could significantly reduce personal suffering and the substantial socio-economic burden associated with failed treatments.

In addition to my research activities, which have been continuously funded since 1999 (\$44,322,129 in direct costs as PI/MPI), I have had the privilege of mentoring and teaching students

and investigators at various levels. Since 2002, I have acted as the primary mentor at Harvard University or Harvard Medical School for 8 junior faculty (HMS Instructors or Assistant Professors), 7 post-doctoral fellows, 6 graduate students, 21 undergraduate students (11 of whom wrote an honors thesis under my primary mentorship). Collectively, my mentees have received 61 fellowships/training grants amounting \$9,454,151 in direct costs (57 fellowships amounting \$9,243,963 at McLean Hospital since June 2010). For my mentoring activities, I was awarded the Anne M. Cataldo Excellence in Mentoring Award from McLean Hospital (2015) and The Stuart T. Hauser, M.D. PhD. Mentorship Award in Psychiatry from Harvard Medical School (2017). In addition, while a faculty member within the Faculty of Arts and Sciences at Harvard University, I developed three graduate courses and four undergraduate courses, which included introductory survey courses (e.g., *Abnormal Psychology*), advanced undergraduate lecture courses (e.g., *Neurobiological Aspects of Psychopathology*), undergraduate seminars (e.g., *Mood Disorders*), undergraduate laboratory courses (e.g., *Affective Neuroscience: Research Seminar*), and graduate seminars (e.g., *Clinical Neuroscience*). Finally, in my roles as Director of the Center for Depression, Anxiety and Stress Research and Director of the Neuroimaging Center at McLean Hospital, I have major administrative duties over two large centers, which include 41 and 62 investigators/staff, respectively. In sum, it is my hope that, by fostering the integration of various disciplines and levels of analysis, my research program will contribute to a better understanding of major depression, with the ultimate goal of increasing prevention and improving treatment of this debilitating illness.