JASON J. RADLEY, PH.D.
ASSOCIATE PROFESSOR

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Dept. of Psychological and Brain Sciences
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RESEARCH EXPERTISE

Neural circuit basis of stress-adaptive and maladaptive behaviors
Neural mechanisms of emotional learning
Stress effects on neuron structure and function
Neural control of the HPA axis

EDUCATION AND PROFESSIONAL HISTORY

Education

- Post-doc Neuroscience Salk Institute for Biological Studies, La Jolla, CA 2004-2009
- Post-doc Neuroscience Mount Sinai Medical School, New York, NY 2001-2004
- Ph.D. Neuroscience Princeton University, Princeton, NJ 2001
- M.A. Neuroscience Princeton University, Princeton, NJ 1997
- B.A. Physics Miami University, Oxford, OH 1995

Professional and Academic Positions

- Associate Professor, Department of Psychology, University of Iowa, Iowa City, IA 2017-present
- Assistant Professor, Department of Psychology, University of Iowa, Iowa City, IA 2011-2017
- Senior Research Associate, Laboratory of Neuronal Structure and Function, Salk Institute for Biological Studies, La Jolla, CA 2009-2010
- Postdoctoral Research Associate, Laboratory of Neuronal Structure and Function, Salk Institute for Biological Studies, La Jolla, CA 2004-2009
- Visiting Fellow, Laboratory of Neuroendocrinology, Rockefeller University, New York, NY 2002-2005
- Postdoctoral Fellow, Neurobiology of Aging Laboratories, Mount Sinai School of Medicine, New York, NY 2001-2004
- Graduate Research Assistant, Neuroscience Program, Princeton University, Princeton, NJ 2000-2001
- Teaching Associate, Department of Psychology, Princeton, University, Princeton, NJ 1995-2000

- Distinguished Undergraduate Teaching Fellow, Department of Psychology, Miami University, Oxford, OH 1994-1995
- Research Assistant, Department of Psychology (Dr. Phillip Best), Miami University, Oxford, OH 1993-1995

Honors and Awards

- Fellow-in-residence, Obermann Center for Advanced Studies, University of Iowa, Iowa City, IA 2019
- Curt Richter Award, International Society of Psychoneuroendocrinology 2017
- C.J. Herrick Award in Neuroanatomy, American Association of Anatomists 2012
- Society for Research Fellows Travel Award, The Salk Institute for Biological Studies 2008
- Travel Award, American College of Neuropsychopharmacology Annual Conference, Boca Raton, FL, December 9-13. 2007
- Career Development Travel Award, Anxiety Disorders Association of America (ADAA), Annual Conference, St. Louis, MO, March 28-31 2007
- Travel Fellowship, Winter Conference on Brain Research, Snowmass, CO, January 27-February 2 2007
- Travel Award to Satellite Research Symposium, ADAA, Miami, FL, March 23 2006
- NIMH Center for the Neurobiology of Fear and Anxiety, New York, NY 2001-2004
- Postdoctoral National Research Service Award, Research Training Grant (T32), NIDA 2001-2003
- Phi Beta Kappa 1996
- Graduated Magna cum laude, Miami University 1995
- Distinguished Undergraduate Teaching Award, Miami University 1994-1995

Professional Affiliations

- International Society of Psychoneuroendocrinology
- Society for Neuroscience
- American Association of Anatomists
- International Behavioral Neuroscience Society

TEACHING AT THE UNIVERSITY OF IOWA

Undergraduate Courses

Introduction to Behavioral Neuroscience
Neurobiology of Stress

Graduate Courses

Advanced Topics in Behavioral and Cognitive Neuroscience
Fundamentals of Behavioral Cognitive Neuroscience/Neurobiology
Foundations in Behavioral and Cognitiive Neuroscience

Students Supervised

Degree Objective	*Student Name*	*Years*	*Outcome*
Ph.D. Candidate	Rachel Anderson	2012-2018	Assistant Professor, Bethel University, Arden Hills, MN
Ph.D. Candidate	Shane Johnson (Neuroscience Program)	2014-2020	Postdoctoral fellow, Cornell Weill Medical College
Ph.D. Candidate	Ryan Lingg	2016-2022	Postdoctoral fellow, NIMH
Ph.D. Candidate	Tim Skog (Neuroscience Program)	2017-	
Ph.D. Candidate	Dalton Hinz	2019-	
Ph.D. Candidate	Jacqueline Khamma	2022-	
Undergraduate	Norah Koblesky	2012-2014	Attending UC San Diego Neuroscience PhD Program
Undergraduate	Bradley Hamilton	2012-2013	Postdoctoral fellow, Stanford University
Undergraduate	Ryan Glanz	2014-2016	Attending Univ. Iowa Behav. Neurosci. PhD Program
Undergraduate	Francois Odicho	2015-2017	
Undergraduate	Cole Toovey	2015-2017	Attending Univ. Iowa Clinical Psychology PhD Program
Undergraduate	Hannah Pinho	2016-2019	
Undergraduate	Dalton Hinz	2016-2019	Attending Univ. Iowa Behav. Neurosci. PhD Program
Undergraduate	Mohammed Amish-Malik	2019	Applying to medical school
Undergraduate	Vanshika Mullick	2019	
Undergraduate	Samuel Eliasen	2021	Applying to medical school
Undergraduate	Veena Venkatesh	2021	Applying to medical school
Undergraduate	Jordan Luna	2021-	
Undergraduate	Manuela Lizarazu	2021-	
Undergraduate	Abdulahi Mohamed	2022-	

Other Contributions to Instructional Programs

Comprehensive Exam Committees

James Bigelow (2011); Adam Steinmetz (2011); Seth Hurley (2012); Mary Huff (2013); Breein Rossi (2013); Brandt Uitermarkt (2013); Rachel Anderson (2015); Caitlin Cosme (2015); Didhiti Mukherjee (2015); Sean Farley (2016); Lara Cemo (2016); Jada Bittle (2016); Victoria Muller Ewald (2016); Stacey Peek (2017); Margaret Fuller (2017); Kate Rasmussen (2017); Krista Wahlstrom (2018), Alejandra Gomez (2018), Kelsey Heslin (2018), Kelle Nett (2018); Shane Johnson (2018); Parker Abbott (2019); Noah Armstrong (2019); Fillan Grady (2019); Emily Walsh (2019); Ryan Betters (2020); Ryan Lingg (2020); Austin Bruce (2020), Bess Glickman (2020); Camille Hanes (2020); Jessica Lewis (2020); Tim Skog (2020); Maya Evans (2021); Matt McGregor (2021); Amanda Bullert (2022); Sarah Mitchell (2022)

Ph.D. Committee Service

James Bigelow (2011); Adam Steinmetz (2011); Seth Hurley (2012); Mary Huff (2013); Breein Rossi (2013); Brandt Uitermarkt (2013); Caitlin Cosme (2015); Rachel Anderson (2015); Didhiti Mukherjee (2015); Sean Farley (2016); Lara Cemo (2016); Jada Bittle (2016); Victoria Muller Ewald (2016); Stacey Peek (2017); Margaret Fuller (2017); Kate Rasmussen (2017); Krista Wahlstrom (2018); Alejandra Gomez (2018); Kelsey Heslin (2018); Kelle Nett (2018); Shane Johnson (2018); Parker Abbott (2019), Noah Armstrong (2019), Fillan Grady (2019), Emily Walsh (2019); Ryan Betters (2020); Austin Bruce (2020), Bess Glickman (2020); Camille Hanes (2020); Jessica Lewis (2020); Tim Skog (2020); Maya Evans (2021); Matt McGregor (2021); Amanda Bullert (2022); Jessica Purnell (2022); Matthew McGregor (2022)

Research Advisory Committee (RAC) Committee Service

Mary Huff (Lalumiere); Rachel Anderson (Radley); Breein Rossi (Poremba); Brandt Uitermarkt (Blumberg); Timothy Weng (Voss); Didhiti Mukherjee (Blumberg); Sean Farley (Freeman); Ryan Lingg (Radley); Ryan Glanz (Blumberg); Zipeng You (Blumberg); Stuti Gupta (Freeman); Dalton Hinz (Radley)

SCHOLARSHIP

Book Chapters

1. *__Radley JJ__, Johnson SB, Sawchenko PE (2017) Limbic Forebrain Modulation of Neuroendocrine Responses to Emotional Stress. In: Stress and Neuroendocrinology and Neurobiology (Fink G, ed). Amsterdam: Elsevier.

Journals

Journal Article Citation Statistics from Google Scholar (updated April 2022)
Total Citations: 6,458
Mean citations per publication: 179
H-index ("x" papers with "x" or more citations): 29
G-index (top "x" papers that collectively receive at least "x^2" citations): 36

36. Meyer HC, Sangha S, Radley JJ, LaLumiere RT, Baratta MV (2021) Environmental certainty influences the neural systems regulating stress and threat. *Neurosci Biobehav. Rev*. *Epub ahead of print*

35. Khataei T, Romig-Martin SA, Harding AMS, Radley JJ, Benson CJ (2021) Comparison of murine behavioural and physiological responses after forced exercise by electrical shock versus manual prodding. *Exp Physiol.* 106: 812-819.

34. Lingg RT, Johnson SB, Emmons EB, Anderson RM, Romig-Martin SA, Narayanan NS, McGaugh JS, LaLumiere RT, Radley JJ (2020) Anteroventral bed nuclei of the stria terminalis modulates memory consolidation through glucocorticoid-dependent and independent circuits. *Proc Natl Acad Sci*. 117:8104-8114.

33. Anderson RM, Johnson SB, Lingg RT, Hinz D, Romig-Martin SA, Radley JJ (2019) Evidence for overlapping prefrontal structural and functional alterations in male and female rats following chronic stress or glucocorticoid exposure. *Cerebral Cortex*. 30: 353-370.

32. Johnson SB, Emmons EB, Lingg RT, Anderson RM, Romig-Martin SA, LaLumiere RT, Narayanan NS, Viau V, Radley JJ (2019) Prefrontal–bed nucleus circuit modulation of a passive coping response set. *The Journal of Neuroscience*. 39: 1405-1419.

31. Farley SJ, Albazboz H, De Corte BJ, Radley JJ, Freeman JH (2018) Amygdala central nucleus modulation of cerebellar learning with a visual conditioned stimulus. *Neurobiol Learning and Memory*. 150: 84-92.

30. Radley JJ, Johnson SB (2018) Anteroventral bed nuclei of the stria terminalis neurocircuitry: Towards an integration of HPA axis modulation with coping behaviors - Curt Richter Award Paper 2017. *Psychoneuroendocrinology*. 89: 239-249.

29. Bath KG, Russo SJ, Pleil KE, Wohleb ES, Duman RS, Radley JJ (2017) Circuit and synaptic mechanisms of repeated stress: perspectives from differing contexts, duration, and development. *Neurobiol. Stress*. 7:137-151.

28. Molumby MJ, Anderson RM, Newbold DJ, Koblesky NK, Schreiner D, Radley JJ, Weiner JA (2017) γ-Protocadherins interact with neuroligin-1 and negatively regulate dendritic spine morphogenesis. *Cell Reports*. 18: 2702-2714.

27. Johnson SB, Emmons EB, Anderson RM, Glanz RM, Romig-Martin SA, Narayanan NS, LaLumiere RT, Radley JJ (2016) A basal forebrain site coordinates the modulation of endocrine and behavioral responses via divergent neural pathways. *J Neurosci*. 36: 8687-8699.

26. De Jesús-Cortés H, Lu Y, Anderson RM, Khan MZ, Nath V, McDaniel L, Lutter M, Radley JJ, Pieper AA, Cui H (2016) Loss of estrogen-related receptor alpha disrupts ventral-striatal synaptic function in female mice. *Neurosci*. 329: 66-73.

25. Anderson RM, Glanz RM, Johnson SB, Miller MM, Romig-Martin S, Radley JJ (2016) Prolonged corticosterone exposure induces dendritic spine remodeling and attrition in the rat medial prefrontal cortex. *J Comp Neurol*. 524: 3729-3746.

24. Farley SJ, Radley JJ, Freeman JH (2016) Amygdala modulation of cerebellar learning. *J Neurosci*. 36: 2190-2201.

23. Radley JJ, Anderson RM, Cosme CV, Glanz RM, Miller MC, Romig-Martin SA, LaLumiere RT (2015) The stress of cocaine self-administration is associated with impaired prefrontal structural and functional plasticity. *J Neurosci*. 25: 11897-11910.

22. JJ, Morilak D, Viau V, Campeau S (2015) Chronic stress and brain plasticity: contrasting mechanisms underlying adapative and maladaptive changes and implications for CNS-related disorders. *Neurosci Biobehav Rev*. 58: 79-91.

21. Radley JJ, Sawchenko PE (2015) Evidence for involvement of a limbic-paraventricular hypothalamic inhibitory network in HPA axis adaptations to repeated stress. *J Comp Neurol*. 523: 2769-2787.

20. Cui H, Khan MZ, Anderson RM, McDaniel L, Wilson HE, Radley JJ, Pieper AA, Lutter M (2015) Loss of Esrra promotes eating disorder-like behaviors in female mice. *Cell Reports*. 11: 344-350.

19. Anderson RM, Birnie AK, Koblesky, NK, Romig-Martin SA, Radley JJ (2014) Adrenocortical status predicts the degree of age-related deficits in prefrontal structural plasticity and working memory. *J Neurosci*. 34: 8387-8397.

18. Kreple CJ, Lu Y, Taugher RJ, Du J, Stump M, Wang Y, Ghobbeh A, Fan R, Sowers LP, Welsh MW, Radley JJ, LaLumiere RT, Wemmie JA (2014) Acid-sensing ion channels contribute to synaptic transmission and inhibit cocaine-associated plasticity. *Nat Neurosci.* 17: 1083-1091.

17. Radley JJ, Anderson RM, Alcock JA, Hamilton BA, Romig-Martin SA (2013) Selective Vulnerability of Dentritic Spine Subtypes in an HPA-inhibitory prefrontal circuit following chronic variable stress. *J Neurosci* 33: 14379-14391.

16. Radley JJ (2012) A limbic cortical HPA-inhibitory network and its imbalance in stress pathology. *Front Behav Neurosci* 6: 1-10.

15. Radley JJ, Kabbaj M, Jacobson L, Heydendael W, Yehuda R, Herman JP (2011) Stress risk factors and stress-related pathology: neuroplasticity, epigenetics, and endophenotypes. *Stress* 14: 481-497.

14. Radley JJ, Sawchenko PE (2011) Evidence for a Common Relay Subserving Prefrontal Cortical and Hippocampal inhibition of the neuroendocrine stress response. *J Neurosci.* 31: 2683-2695.

13. Radley JJ, Gosselink KG, Sawchenko PE (2009) A discrete GABAergic relay mediates prefrontal cortical inhibition of the neuroendocrine stress response. *J Neurosci* 29: 7330-7340.

12. Radley JJ, Williams B, Sawchenko PE (2008) Noradrenergic innervation of the dorsal medial prefrontal cortex modulates hypothalamo-pituitary-adrenal responses to acute emotional stress. *J Neurosci* 28: 5806-5816.

11. Radley JJ, Rocher AB, Rodriguez A, Ehlenberger DB, Dammann M, McEwen BS, Morrison JH, Wearne SL, Hof PR (2008) Repeated stress alters dendritic spine morphology in the rat medial prefrontal cortex. *J Comp Neurol* 507: 1141-1150.

10. Radley JJ, Farb C, He Y, Johnson LR, Janssen WGM, Rodrigues S, Hof PR, LeDoux JE, Morrison JH (2007) Distribution of NMDA and AMPA receptor subunits at thalamo-amygdaloid dendritic spines. *Brain Res* 1134: 87-94.

9. Radley JJ, Arias CM, Sawchenko PE (2006) Regional differentiation of the medial prefrontal cortex in regulating adaptive responses to acute emotional stress. *J Neurosci* 26: 12967-12976.

8. Radley JJ, Johnson LR, Janssen WGM, Lamprecht R, Hof PR, LeDoux JE, Morrison, JH. (2006) Associative Pavlovian conditioning leads to an increase in spinophilin-immunoreactive dendritic spines in the lateral amygdala. *Eur J Neurosci* 24: 876-884.

7. Liston C, Miller MM, Goldwater DS, Radley JJ, Rocher AB, Hof PR, Morrison JH, McEwen BS (2006) Stress-induced alterations in prefrontal cortical dendritic morphology predict selective impairments in perceptual attentional set-shifting. *J Neurosci* 26: 7870-7874.

6. Radley JJ, Rocher AB, Miller M, Janssen WGM, Hof PR, McEwen BS, Morrison JH (2006) Chronic behavioral stress induces apical dendritic spine loss of the rat medial prefrontal cortex. *Cerebral Cortex* 16: 313-320.

5. Radley JJ, Rocher AB, Janssen WGM, Hof PR, McEwen BS, Morrison JH (2005) Reversibility of apical dendritic retraction in the rat medial prefrontal cortex following repeated stress. *Exp Neurol* 196: 199-203.

4. Radley JJ, Morrison JH (2005) Repeated stress and structural plasticity in the brain. *Ageing Res Rev* 4: 271-287.

3. Radley JJ, Sisti HM, Hao J, Rocher AB, McCall T, Hof PR, McEwen BS, Morrison JH (2004) Chronic behavioral stress induces apical dendritic reorganization in pyramidal neurons of the medial prefrontal cortex. *Neuroscience* 125: 1-6.

2. Radley JJ, Jacobs BL (2003) Pilocarpine-induced status epilepticus increases cell proliferation in the dentate gyrus of adult rats via a 5-HT_{1A} receptor-dependent mechanism. *Brain Res* 966: 1-12.

1. Radley JJ, Jacobs BL (2002) 5-HT_{1A} receptor antagonist administration decreases cell proliferation in the dentate gyrus. *Brain Res* 955: 264-267.

Grants – Pending

- Principal Investigator, R01, National Institute of Mental Health, entitled “Structure-function relationships of parallel prefrontal–central gray circuits modulating shifts in avoidance behavior.”

- Principal Investigator, R01, National Institute of Mental Health, entitled “Neural circuits and mechanisms underlying active and passive stress coping.”

- Principal Investigator, R01, National Institute of Mental Health, entitled “Circuit versus stress hormonal influences in consolidation of fear memory strength and precision.”

Grants - active

- Principal Investigator, R01, National Institute of Mental Health, entitled “Neural circuit basis of maladaptive endocrine and behavioral responses following chronic stress.” (1R01MH119106). 2019-2022. Total direct costs: $1,295,008.

- Co-Investigator (Robert Spencer PI, CU Boulder), R01, National Institute of Mental Health, entitled “Circadian regulation of prefrontal cortex-dependent emotional memories.” (1R01MH115947-01A1). 2019-2024. Total direct costs: $1,701,045 ($350,000/ Radley laboratory)

- Co-Principal Investigator, Iowa Neuroscience Institute, Accelerator Grant (Strack, Usachev, Buchannan co-PIs), entitled “Mitochondrial dynamics and calcium cycling in neuronal injury, excitability, and plasticity.” 2017-2022. Total direct costs: $550,000 ($100,000/ Radley laboratory)

- Co-Investigator (Krystal Parker PI), R01, National Institute of Mental Health, entitled “Cerebellar circuits, timing, and cognition.” (R01MH118240-01). 2019-2024.

Grants – completed

- Co-Principal Investigator, R21, National Institute of Mental Health, entitled “Mitochondrial AKAP1 signaling in chronic stress-induced prefrontal structural and functional plasticity.” (R21MH115673-01A1). 2018-2020. Total direct costs: $275,000 ($137,500/ Radley laboratory)

- Principal Investigator, R56, National Institute of Mental Health, entitled “Neural circuit basis of maladaptive endocrine and behavioral coping responses following chronic stress.” (2R56MH095972-06A1). 2017-2019. Total direct costs: $361,153.

- Principal Investigator, NARSAD Independent Investigator Grant, entitled “Optogenetic dissection of the neural mechanisms underlying maladaptive responses to chronic stress.” 2015- 2017. Total direct costs: $100,000.

- Principal Investigator, R01, National Institute of Mental Health, entitled “Circuits and cellular mechanisms of chronic stress-induced HPA axis hyperactivity.” (MH095972). 2012-2017. Total direct costs: $1,190,000.

- Co-Investigator, R01 (Weiner, PI), National Institute of Neurological Disorders and Stroke, entitled “Elucidating the functions of the gamma-protocadherins in CNS” (NS055272). 2013-2017. Total direct costs: $37,800.

- Co-Principal Investigator, Serotonergic modulation of cellular protein homeostasis (Prahlad, PI) Center on Aging Mind and Brain Initiative, University of Iowa. 2015. Total direct costs: $12,500.

- Principal Investigator, NARSAD Young Investigator Award, entitled “Circuits providing for modulation of stress responses by the medial prefrontal cortex.” 2008-2010. Total direct costs: $60,000.

- Principal Investigator, NARSAD Young Investigator Award, entitled “Differential role of the medial prefrontal cortex in neuroendocrine and autonomic responses to psychological stress.” 2006-2008. Total direct costs: $60,000.

- Principal Investigator, Anxiety Disorders Association of America Junior Faculty Research Grant, entitled “Role of the medial prefrontal cortex in adaptive responses to psychological stress.” 2005-2006. Total direct costs: $25,000.

Invited Lectures, Colloquia

- Invited symposium chair, “Session 4: Mechanisms of circuits and stress.” *The 3rd Munich Winter Conference on Stress*. Garmisch-Partenkirchen, Germany. March 14, 2022.
- Invited colloquium, “Prefrontal circuit activation of distinct coping responses differentially alters the neuroendocrine consequences of stress,” Department of Psychological and Brain Sciences Colloquium, University of Iowa, Iowa City, IA, Mar 6, 2020.
- Invited colloquium, “Prefrontal–periaqueductal gray pathways underlying the modulation of active and passive stress coping responses,” Iowa Neuroscience Institute Seminar, Carver College of Medicine, University of Iowa, Iowa City, IA, Feb 26, 2020.
- Invited colloquium, “Prefrontal circuit mechanisms accounting for the modulation of active and passive coping stress responses,” University of Newcastle, Newcastle, New South Wales, Australia, June 13, 2019.
- Invited colloquium, “Dual roles for the medial prefrontal cortex as a target and modulator of stress responses,” Queensland University of Technology, Brisbane, Queensland, Australia, June 18, 2019.
- Invited colloquium, “Prefrontal circuit mechanisms accounting for the modulation of active and passive coping stress responses,” University of Tasmania, Hobart, Tasmania, Australia, June 21, 2019.
- Invited colloquium, “Prefrontal circuit mechanisms accounting for the modulation of active and passive coping stress responses,” School of Biomedical Sciences and Pharmacy, University of Newcastle, Newcastle, New South Wales, Australia, June 13, 2019.
- Invited colloquium, “Dual roles for the medial prefrontal cortex as a target and modulator of stress responses,” School of Biomedical Sciences, Queensland University of Technology, Brisbane, Queensland, Australia, June 18, 2019.
- Invited colloquium, “Prefrontal circuit mechanisms accounting for the modulation of active and passive coping stress responses,” Department of Psychology, University of Tasmania, Hobart, Tasmania, Australia, June 21, 2019.

- Invited talk, “Effects of stress and cocaine exposure on medial prefrontal structural and functional plasticity”, School of Biomedical Sciences, Marquette University, Milwaukee, WI, August 1, 2017.
- Invited colloquium, “Disentangling the effects of cocaine on structural and functional plasticity in the medial prefrontal cortex.” Molecular Psychiatry Department seminar series, University of Iowa, IA, Jan 5, 2016.
- Invited colloquium, “Stress and glucocorticoid effects on prefrontal structural plasticity” Neuroscience seminar series, University of Cincinnati, Cincinnati, OH, Nov 12, 2016.
- Invited colloquium, “Medial prefrontal cortex involvement in adaptive and maladaptive responses to stress” Dept. Biomedical Sciences, Iowa State University, Ames, IA, Oct. 22, 2015.
- Invited colloquium, “Stress and glucocorticoid effects on prefrontal structural plasticity” Neuroplasticity of Aging seminar series, University of San Diego, San Diego, CA, Sept. 17, 2015.
- Invited colloquium, “Medial prefrontal cortex involvement in adaptive and maladaptive responses to stress” Neuroscience seminar series, Marquette University, Milwaukee, WI, Mar 24, 2015.
- Invited colloquium, “*When good stress goes bad*, Role of plasticity in prefrontal-HPA control circuitry.” LNSF Science Day, The Salk Institute for Biological Studies, La Jolla, CA, Nov 8, 2013.
- Invited colloquium, “*When good stress goes bad*, Role of plasticity in prefrontal-HPA control circuitry.” Psychiatry Department, The University of Iowa, IA, May 28, 2013.
- Invited colloquium, “*When good stress goes bad*, Role of plasticity in prefrontal-HPA control circuitry.” Aging Mind and Brain Institute Seminar Series, The University of Iowa, IA, May 23, 2013.
- Invited colloquium, “The stressed-out brain: A role for an cortical inhibitory network in modulating hypothalamic-pituitary-adrenal (HPA) axis responses.” Biology Department, The University of Iowa, Iowa City, IA, November 9, 2012.
- Departmental colloquium, “A proposal for a novel HPA-inhibitory network: implications for understanding maladaptive effects of chronic stress.” Psychology Department, The University of Iowa, Iowa City, IA, February 15, 2012.
- Invited colloquium, “Evidence for a novel limbic cortical HPA-inhibitory network and its involvement in HPA axis hyperactivity following chronic stress.” Uniformed Services University, Department of Psychiatry, Center for the Neurobiology of Traumatic Stress, Bethesda, MD, January 26, 2012.
- Invited Colloquium, “Evidence for a limbic cortical HPA-inhibitory network and its implications for understanding stress-related pathology.” Program in Neuroscience, The University of Iowa, Iowa City, IA, October 25, 2011.
- Invited colloquium, Department of Biology, Kent State University, 2010.
- Invited colloquium, Department of Psychology, University of Wisconsin at Milwaukee, 2010.
- Invited speaker, “Medial prefrontal cortex as target and modulator of stress responses.” Evelyn F. and William L. McKnight Brain Institute, University of Florida, Jan 28, 2010
- Invited colloquium, Department of Psychology, University of California at Los Angeles, 2010.

- Invited colloquium, Department of Psychology, University of Toronto at Scarborough, 2010.
- Invited colloquium, Department of Physiology and Pharmacology, University of Georgia, 2009.
- Invited colloquium, Department of Psychiatry and Behavioral Neurobiology, University of Alabama at Birmingham, 2008.
- Invited colloquium, "Medial prefrontal cortex as target and modulator of stress responses." Nathan Kline Institute for Psychiatric Research, Orangeburg, NY Sept. 11, 2008.
- Invited colloquium, "Medial prefrontal cortex as target and modulator of stress responses." Lundbeck Research, Paramus, NJ Sept. 10, 2008.
- Invited colloquium, Department of Neuroscience, Medical University of South Carolina, 2008.
- Invited colloquium, Department of Psychology, George Mason University, 2008.
- Invited colloquium, Department of Psychology, University of Virginia, 2008.
- Invited colloquium, Department of Psychology, University of South Carolina, 2008.
- Invited colloquium, Department of cell biology and neuroscience, University of California at Riverside, 2008.
- Invited colloquium, Department of Psychology, Western Washington University, 2008.
- Invited colloquium, "Medial prefrontal cortex as both effector and target of stress responses." The Children's Hospital of Philadelphia, Division of stress neurobiology, Philadelphia, PA, May 25, 2007.
- Invited colloquium, "Medial prefrontal cortex as both effector and target of stress responses." Western Human Nutrition Research Center (USDA), Obesity and Metabolism Research Unit, Davis, CA, June 6, 2007
- Invited colloquium, "Medial prefrontal cortex as both effector and target of stress responses." Uniformed Services University, Department of Psychiatry, Center for the Neurobiology of Traumatic Stress, Bethesda, MD, April 19, 2006.

Conference Presentations: Talks

- Radley JJ (2022) Evidence for prefrontal-bed nucleus circuit modulation of fear discrimination. In: New Developments on Novel Circuits that Govern Responses to Threat and Safety. *54th Annual Winter Conference on Brain Research*, Snowmass, CO, February 2.
- Radley JJ (2021) Activation of a prefrontal–periaqueductal gray circuit promotes the behavioral and endocrine features of resilience under extreme stress. In: Neural Systems Regulating Responses to Stress, Threat, and Safety. *29th Annual Meeting of the International Behavioral Neuroscience Society*, Puerto Vallarta, Jalisco, Mexico, June 2.
- Radley JJ (2020) Prefrontal pathways underlying the modulation of active and passive stress coping responses. In: New Developments on Hypothalamic and Brainstem Control of Defensive Behavior. *53rd Annual Winter Conference on Brain Research*, Big Sky, MT, January 27.
- Radley JJ, Johnson SB (2019) Prefrontal circuit mechanisms accounting for the modulation of active and passive coping responses. In: Implications for understanding

maladaptation and disease susceptibility. *49th Annual meeting of the International Society of Psychoneuroendocrinology*, Milan, Italy, August 31.

- Radley JJ, Lingg RT (2019) Involvement of the anteroventral bed nuclei of the stria terminalis in memory consolidation via HPA-dependent and independent mechanisms. In: Elucidation of novel microcircuits regulating aversive memories. *28th Annual Meeting of the International Behavioral Neuroscience Society*, Cairns, Queensland, Australia, June 27.
- Radley JJ (2019) Role of the medial prefrontal cortex in adaptive and maladaptive response sets. In: Mechanisms by which the medial prefrontal cortex mediates maladaptive behaviors. *52nd Annual Winter Conference on Brain Research*, Snowmass, CO, January 29.
- Radley JJ (2018) Involvement of the anteroventral bed nuclei of the stria terminalis in memory consolidation. In: Stress memories: quantity and quality. *48th Annual meeting of the International Society of Psychoneuroendocrinology.* Newport Beach, CA, September 8.
- Radley JJ (2018) Neurocircuitry of the bed nuclei: toward an integration of HPA axis modulation with coping behaviors. In: Circuit and synaptic mechanisms of stress: Towards an integration of neuroendocrine and behavioral responses. *51st Annual Winter Conference on Brain Research*, Whistler Village, BC, Canada, January 17.
- Radley JJ (2017) Stress and glucocorticoid effects on structural plasticity in the medial prefrontal cortex. In: Adaptation to repeated stress: genes, plasticity, and developmental influences. *47th Annual meeting of the International Society of Psychoneuroendocrinology.* Zurich, Switzerland, September 9.
- Radley JJ (2017) Neurocircuitry of the bed nuclei: toward an integration of HPA axis modulation with coping behaviors. Curt Richter Award Talk. *47th Annual meeting of the International Society of Psychoneuroendocrinology.* Zurich, Switzerland, September 7.
- Radley JJ (2017) A basal forebrain interface for coordinating behavioral and endocrine responses to stress. In: Insights from studying contrasting circuits and mechanisms underlying adaptive coping. *26th Annual Meeting of the International Behavioral Neuroscience Society*, Hiroshima, Japan, June 28.
- Radley JJ (2017) BST circuit modulation of endocrine and behavioral stress responses. In: No bed of roses: Unmasking bed nuclei of the stria terminalis mechanisms underlying behavioral coordination. *50th Annual Winter Conference on Brain Research*, Big Sky, MT, February 1.
- Radley JJ (2016) Disentangling the effects of cocaine on structural and functional plasticity in the medial prefrontal cortex. In: Stress and cocaine: A thorny problem in the PFC-accumbens circuit. *49th Annual Winter Conference on Brain Research*, Breckenridge, CO, January 28.
- Radley JJ (2015) The stress of cocaine use is associated with structural and functional prefrontal abnormalities. In: The double black diamonds of stress and drug abuse: crossing trails in the mesocorticolimbic system. *48th Annual Winter Conference on Brain Research*, Big Sky, MT, January 27.
- Radley JJ (2014) Medial prefrontal cortex involvement in adaptive and maladaptive responses to stress. In: Novel effects of stress on the brain – a cellular and mechanistic approach. 8th International Congress of Neuroendocrinology, Sydney, NSW, Australia, August 20.

- Radley JJ (2014) Role of the medial prefrontal cortex as modulator and target of stress responses. In: Chronic stress and brain plasticity: Contrasting mechanisms underlying adaptive and maladaptive changes and implications for CNS disorders. *23rd Annual Meeting of the International Behavioral Neuroscience Society*, Las Vegas, NV, June 12.
- Radley JJ (2013) *"When good stress goes bad"* Role of plasticity in prefrontal-HPA control circuitry. In: Chronic stress and plasticity in CNS pathways: Contrasting mechanisms underlying adaptive and maladaptive changes and implications for thinking about stress-related CNS disorders (panel organizer). *46th Annual Winter Conference on Brain Research*, Breckenridge, CO, January 28.
- Radley JJ (2012) C.J. Herrick Award Lecture. Stress neurocircuitry: implications for understanding chronic responses. Experimental Biology Meeting. San Diego, CA, April 22.
- Radley JJ (2012) Special Lecture, American Association of Anatomists Regional Meeting. Evidence for a Limbic cortical HPA inhibitory network and its role in chronic stress-induced hyperactivity. Rush University, Chicago, IL, February 27.
- Radley JJ (2010) Structural plasticity in limbic cortical circuits that regulate the neuroendocrine stress response. In: Stress risk factors and stress-related pathology. *Neurobiology of Stress Workshop*. Boulder, CO, June 17.
- Radley JJ (2007) Repeated stress induces dendritic and synaptic morphologic alterations in the medial prefrontal cortex. In: Dopamine, Stress, and Plasticity in the Prefrontal Cortex. *40th Annual Winter Conference on Brain Research,* Snowmass, CO, January 29.
- Radley JJ, Mirescu C, Kochman L, Jacobs BL (2003) Basic Factors Influencing Cell Proliferation in the Dentate Gyrus (DG) of Adult Rats and Mice. *NIDA Meeting/ Stem Cells: Opportunities for Drug Abuse Research*, February 10.

Conference Presentations: Posters (last 15 years only)

- Lingg RT, Johnson SB, Skog TD, Hinz DC, Lizarazu M, Romig-Martin SA, Eliasen S, Narayanan NS, **Radley JJ** (2021) Evidence for a prefrontal–bed nuclei of the stria terminalis circuit that constrains contextual fear conditioning. *Soc Neurosci Abstr.* 49.
- Hinz DC, Skog TD, Luna JT, Romig-Martin SA, Radley JJ (2021) An insular cortex–bed nuclei pathway engages passive avoidance behavior in aversive and non-aversive contexts. *Soc Neurosci Abstr.* 49.
- Skog TD, Johnson SB, Beltz TG, Lingg RT, Hinz DC, Romig-Martin SA, Venkatesh V, Narayanan NS, Johnson AK, **Radley JJ** (2021) A prefrontal to midbrain periaqueductal gray circuit restrains passive coping in response to stress. *Soc Neurosci Abstr.* 49.
- Johnson, SB, Lingg RT, Emmons EB, Anderson RM, Romig-Martin SR, Narayanan NS, LaLumiere RT, **Radley JJ** (2019) Parallel prefrontal circuits mediate both active and passive coping behaviors in response to stress. *28th International Behavioral Neuroscience Society Annual Meeting*, Cairns, Queensland, Australia. June 25.
- Lingg RT, Johnson SB, Anderson RM, Emmons EB, Romig-Martin SR, Narayanan NS, LaLumiere RT, Radley **JJ** (2019) Disentangling bed nuclei of the stria terminalis circuitry (BST) in the modulation of aversive memory consolidation. *28th International Behavioral Neuroscience Society Annual Meeting*, Cairns, Queensland, Australia. June 25.
- Johnson SB, Lingg RT, Emmons EB, Anderson RM, Romig-Martin SR, Narayanan NS, LaLumiere RT, **Radley JJ** (2019) A prefrontal-bed nucleus circuit limits both HPA output

and passive coping behaviors. *52nd Winter Conference on Brain Research*, Snowmass, CO, February 1.

- Johnson SB, Anderson RM, Emmons EB, Romig-Martin SA, Narayanan NS, LaLumiere RT, **Radley JJ** (2018). A prefrontal-basal forebrain circuit shapes neuroendocrine and behavioral stress responses. 51st Annual Winter Conference on Brain Research, Whistler Village, BC, Canada, January 16.
- Anderson RM, Mahanna M, Romig-Martin S, **Radley JJ** (2017) Evidence that chronic stress-induced prefrontal dendritic spine loss and working memory impairment are not sexually differentiated in adult rats. *Soc Neurosci Abstr.* 46.
- Anderson RM, Johnson SB, Glanz R, Romig-Martin SA, **Radley JJ** (2016) Prolonged elevations in corticosterone induces regressive and enduring dendritic spine alterations in medial prefrontal neurons. *Soc Neurosci Abstr.* 45.
- Johnson SB, Anderson RM, Emmons EL, Romig-Martin S, Narayanan NS, LaLumiere RT, **Radley JJ** (2016) Distinct neural projections from the anteroventral bed nuclei of the stria terminalis modulate endocrine and behavioral stress responses. *Soc Neurosci Abstr.* 45.
- Johnson SB, Anderson RM, Huff ML, Romig-Martin S, Glanz RM, Miller MC, LaLumiere RT, **Radley JJ** (2015) Optogenetic investigation of the anterior bed nuclei of the stria terminalis (aBST) in the inhibition of the neuroendocrine response to stress. *Soc Neurosci Abstr.* 44.
- Anderson RM, Glanz RM, Johnson SB, Miller MM, Romig-Martin S, **Radley JJ** (2015) Prolonged corticosterone exposure induces dendritic spine remodeling and attrition in the rat medial prefrontal cortex. *Soc Neurosci Abstr.* 44.
- Anderson RM, Cosme CV, LaLumiere RT, **Radley JJ** (2014) Cocaine self-administration in rats induces regressive structural plasticity in the medial prefrontal cortex. *Soc Neurosci Abstr* 43.
- Molumby MJ, Newbold DJ, Schreiner D, Koblesky NK, Garrett AM, **Radley JJ**, Weiner JA (2014) The gamma-protocadherins interact physically and functionally with the neurexin-neuroligin adhesion complex. *Soc Neurosci Abstr* 43.
- Anderson RM, Birnie AK, Koblesky, NK, Romig-Martin SA, **Radley JJ** (2014) Adrenocortical status predicts the degree of age-related deficits in prefrontal structural plasticity and working memory. *Neurobiology of Stress Workshop*. Cincinnati, OH, June 18.
- Anderson RM, **Radley JJ** (2013) Selective Vulnerability of dendritic spine subtypes in an HPA-inhibitory prefrontal circuit following chronic variable stress. *Soc Neurosci Abstr* 42.
- **Radley JJ**, Sawchenko PE (2011) Diminished influence of an HPA-inhibitory network following chronic variable stress. *Soc Neurosci Abstr* 40.
- **Radley JJ**, Sawchenko PE (2010) Evidence for a Common Relay Subserving Prefrontal Cortical and Hippocampal Inhibition of the Neuroendocrine Stress Response. *Soc Neurosci Abstr* 39.
- **Radley JJ**, Sawchenko PE (2008) Forebrain circuitry subserving medial prefrontal cortical influences on hypothalamo-pituitary adrenal axis responses to emotional stress. *Soc Neurosci Abstr* 37.
- **Radley JJ**, Williams B, Sawchenko PE (2008) Noradrenergic innervation of the dorsal medial prefrontal cortex modulates hypothalamo-pituitary-adrenal responses to acute

emotional stress. *Salk Science Day, Salk Institute for Biological Studies*, La Jolla, CA, March 21.

- **Radley JJ**, Williams B, Sawchenko PE (2007) Noradrenergic inputs into dorsal medial prefrontal cortex modulate paraventricular hypothalamic responses to acute restraint stress. *American College of Neuropsychopharmacology, Annual Conference,* Boca Raton, FL, December 9-13.
- **Radley JJ**, Sawchenko PE (2007) Noradrenergic inputs into dorsal medial prefrontal cortex (mPFC) modulate paraventricular hypothalamic responses to acute restraint stress. *Soc Neurosci Abstr* 36.
- **Radley JJ**, Sawcenko PE (2007) Regional differentiation of the medial prefrontal cortex in regulating adaptive responses to acute emotional stress. *Anxiety Disorders Association of America, Annual Conference*, St. Louis, MO, March 28-31.
- **Radley JJ**, Rocher AB, Hof PR, Wearne, SL, McEwen BS, Morrison JH (2007) Repeated stress alters dendritic spine morphology in the rat medial prefrontal cortex. *Anxiety Disorders Association of America, Annual Conference*, St. Louis, MO, March 28-31.

SERVICE

Department

Coordinator, Behavioral and Cognitive Neuroscience Training Area, 2018 – present.
Committee on Graduate Studies, 2017 – present.
Brown Bag Seminar Series Coordinator (BCN, C&P, DS), 2012 – 2019.
Animal Care and Use Committee, 2011 – 2019.

University

Member, Faculty Senate, Faculty Policies and Compensation Committee, 2021 – present
Member, Faculty Senate, Judicial Commission, 2021 – present
Member, College of Liberal Arts and Sciences, Faculty Assembly, 2021 – present
Neuroscience Graduate Program, Comprehensive Examination Committee, 2016 – present
College of Liberal Arts and Sciences, Committee member, Biology Dept. 10-yr review, 2016
Neuroscience Graduate Program, Judge, Neuroscience Research Day Poster Session. 2014
Neuroscience Graduate Program, Student Awards Committee. 2012-2013
Neuroscience Graduate Program, Student Awards Committee (Best Publication), 2012

Professional

Journals

Editorial Board: Chronic Stress (Sage publications), 2017 – present.
Ad hoc Reviewer (within last 2 years): *Biological Psychiatry; Cerebral Cortex; Journal of Comparative Neurology; eLife, Journal of Neuroscience; Neurobiology of Stress; Psychoneuroendocrinology; Stress; Neuropsychopharmacology*

NIH Grant Review Panels

Reviewer, Special Emphasis Panel, Fellowships: Behavioral Neuroscience [ZRG1 F02A-K (20)], National Institutes of Health, March 3-4, 2022.

Reviewer, Special Emphasis Panel, Fellowships: Behavioral Neuroscience [ZRG1 F02A-K (20)], National Institutes of Health, October 21-22, 2021.

Ad hoc member, Behavioral Neuroendocrinology, Rhythms, and Sleep (BNRS) Study Section, National Institutes of Health, June 15-16, 2021.

Reviewer, Special Emphasis Panel, Fellowships: Behavioral Neuroscience [ZRG1 F02A- K (20)], National Institutes of Health, March 4-5, 2021.

Ad hoc member, Behavioral Neuroendocrinology, Rhythms, and Sleep (BNRS) Study Section, National Institutes of Health, February 4-5, 2021.

Reviewer, Special Emphasis Panel, Fellowships: Behavioral Neuroscience [ZRG1 F02A- K (20)], National Institutes of Health, October 22-23, 2020.

Ad hoc member, Neuroendocrinology, Rhythms, and Sleep (NNRS) Study Section, National Institutes of Health, May 30-31, 2020.

Reviewer, Special Emphasis Panel: Center of Excellence for Research on Complementary and Integrative Health [ZAT1 JM-(08)], National Institutes of Health, May 21, 2020.

Ad hoc member, Neuroendocrinology, Rhythms, and Sleep (NNRS) study section, February 13-14, 2020, New Orleans, LA.

Ad hoc member, Neuroendocrinology, Rhythms, and Sleep (NNRS) study section, May 30-31, 2019, Bethesda, MD.

Reviewer, IDeA Network for Biomedical Research Excellence program, National Institutes of Health, March 1, 2018.

Ad hoc member, Neuroendocrinology, Rhythms, and Sleep (NNRS) study section, June 6-7, 2016, Baltimore, MD.

Reviewer, Molecular, Developmental, and Cellular Neuroscience-R (86) R15 Academic research enhancement award study section, June 25-26, 2015, Washington, D.C.

Ad hoc member, Neuroendocrinology, Rhythms, and Sleep (NNRS) study section, October 2-3, 2014, Baltimore, MD.

Reviewer, Special Emphasis Panel: Stress, Nicotine, and Reward (ZRG1 IFCN-C), December 5, 2012.

Other Grant Review

Pennsylvania Department of Public Health Formula Grant, External review, 2021.

Luxembourg National Research Fund, External reviewer, 2015.

Agence nationale de la recherché (French National Research Agency), External reviewer, 2013.

Israel Science Foundation's FIRST (Focal Initiatives in Research in Science and Technology) program, 2009.

Miscellaneous

Travel Award Mentor, Winter Conference on Brain Research, 2022
Fellowship Mentor, International Behavioral Neuroscience Society, 2021
Travel Award Mentor, Winter Conference on Brain Research, 2020
Travel Award Mentor, Winter Conference on Brain Research, 2019
Advisor, Awards Selection Committee, American Association of Anatomists, 2016
External reviewer, PhD thesis of Hsaio-Jou Cortina Chen, University of Queensland, Queensland, Australia, 2016.
Member, Planning Committee, 2016 Neurobiology of Stress Workshop.
Member, Awards Selection Committee, American Association of Anatomists, 2013
Member, Awards Selection Committee, American Association of Anatomists, 2012.