



Jason G Craggs, Ph.D.

University of Missouri  
Columbia, MO 65211-4250  
Phone: (573) 884-9345  
Email: [craggsj@health.missouri.edu](mailto:craggsj@health.missouri.edu)

■ Current University Position

**RANK** Assistant Professor

■ Degrees

**PH.D. 2005** Educational Psychology, The University of Georgia, Athens Georgia  
**M.A. 2001** Psychology, The University of Memphis, Memphis, Tennessee  
**B.S. 1994** Psychology, John Carroll University, University Heights, Ohio

■ Researcher IDs

**SCOPUS ID** 13610858600  
**ORCID ID** 0000-0002-9531-0559

■ Work and Professional Experience

**2015 - PRESENT** Assistant Professor, The Departments of Physical Therapy & Psychological Science, The University of Missouri

**2010 - 2014** Director of Human Neuroimaging, The Center for Pain Research & Behavioral Health, The University of Florida

**2010 - 2014** Research Assistant Professor, The Center for Pain Research & Behavioral Health, The University of Florida

**2009 - 2010** Postdoctoral Fellow, The Center for Pain & Behavioral Health The University of Florida

**2006 - 2009** NIH Fellow (T32), The University of Florida, Departments of Clinical and Health Psychology, Dentistry, and Shand's School of Medicine

**2005 - 2006** Postdoctoral Associate, The University of Florida, Departments of Clinical and Health Psychology; Shand's School of Medicine, Department of Rheumatology

**2004 - 2005** Clinical RA, The University of Florida, Department of Clinical and Health Psychology; Shand's School of Medicine, Department of Rheumatology

**2004 - 2005** Pre-Doctoral Intern; The University of Florida & Einstein Montessori School

**2003 - 2005** RA, The University of Florida, McKnight Brain Institute, Department of Neuroscience; Shand's School of Medicine, Department of Pediatric Neurology

**2002 - 2003** Fulbright Scholar, Institute of Psychology, Department of Research Methodology, University of Oslo, Norway

**2001 - 2004** Structural and Functional Imaging Coordinator Studying Brain Morphology and Neurolinguistic Ability in Dyslexia (NIH RO1 HD 26890-07), University of Georgia

**2000 - 2001** RA for The Center for Clinical and Developmental Neuropsychology, The University of Georgia

**1998 - 2000** RA, LeBonheur Children's Medical Center for Pediatric Neuropsychology, Memphis, Tennessee

## ■ Area(s) of interest

I have a broad background in research design and methodology with specific training and expertise in multivariate statistics, structural equation modeling (SEM), hierarchical linear modeling (HLM), and advanced neuroimaging data analysis. These skills are routinely used in my research which focuses on modeling the neural networks, and their associated structural components, which underpin the biopsychosocial factors that influence the development and maintenance of chronic pain.

## ■ Impact Statement

Currently, I work in the Departments of Physical Therapy and Psychological Sciences as an Assistant Professor at the University of Missouri. My areas of expertise are in methodology, research design, and data analysis. I have been extensively trained in the use of path analyses, structural equation modeling (SEM), hierarchical linear modeling (HLM), and longitudinal data analyses. I routinely use these skills in my research involving the use of complex data sets to identify factors associated with temporal changes (e.g., treatment outcome), identifying neural networks and their related structural components that facilitate sleep, pain, and alcohol related information. My research goals are to develop a better understanding of the neural mechanisms underlying these disorders to facilitate the translation of these findings into novel treatment and prevention strategies. Toward this end, I have maintained over a decade of NIH funding. The results of which have led to the development of novel models of the neural-networks associated with pain, chronic pain, placebo analgesia, and chronic insomnia. Recently, my research has evolved to include the investigation of the shared neural mechanisms associated with chronic pain and alcohol use disorder.

## ■ Professional Memberships

- 2003 - American Pain Society (APS)
- 2001 - International Neuropsychological Society (INS)
- 1998 - National Academy of Neuropsychology (NAN)
- 2004 - Organization for Human Brain Mapping (HBM)
- 2000 - Society for Neuroscience (SFN)

## ■ Honors/Awards

- 2006 - 2009 NIH Fellow: Integrative and Transitional Pain Research (5T32NS045551-03, Robert Yeziarski, Ph.D., Director)
- 2009 Young Investigator Award to the American Pain Society, San Diego, California
- 2008 Young Investigator Award to the American Pain Society, Tampa, Florida
- 2007 Young Investigator Award to the American Pain Society, Washington, DC
- 2006 Young Investigator Award to the American Pain Society, San Antonio, Texas
- 2003 Graduate School Dean's Research Award: Examining functional brain processes using functional magnetic resonance imaging in familial dyslexia. The University of Georgia
- 2002 -2003 Fulbright Scholar: statistical model of reading as a basic neurocognitive process; University of Oslo, Norway  
Sponsors: George W Hynd, Ed.D. (USA); Knut Hagtvet, Ph.D. (Norway)

## ■ Service to Department and University

- 2016 - Member, University of Missouri Graduate School
- 2013 - 2015 Member, University of Florida Senate IT committee
- 2010 - 2015 Member, University of Florida Graduate School
- 1998 - 2000 Graduate Student Coordinating Committee Member: Department of Psychology, University of Memphis; Memphis, Tennessee
- 1998 - 2000 Undergraduate Curriculum Committee Member: Department of Psychology, University of Memphis; Memphis, Tennessee

## ■ University Committees

- 2016 -** Steering committee for the Brain Imaging Center (University of Missouri)
- 1998 - 2000** Graduate Student Coordinating Committee Member (Department of Psychology, University of Memphis)
- 1998 - 2000** Undergraduate Curriculum Committee Member (Department of Psychology, University of Memphis)

## ■ Courses Taught (Official UM Record - Fall 2007 to Present)

- 4240 01** COC\_THR - Applied Neurophysiology for Allied Health Students
- 4240 01** CPH\_THR - Applied Neurophysiology for Allied Health Students
- 7240 01** CPH\_THR - Applied Neurophysiology for Allied Health Students

## ■ Mentorship of Students, Interns, Residents, and Fellows

- 2016 -** Kelly Boland
- 2016 -** Meredith Johnson
- 2012 - 2014** Jennifer, Mundt
- 2012 - 2014** Landrew, Sevel
- 2012 - 2014** Janelle, Letzen
- 2011 - 2014** Charles, Gay
- 2010 - 2014** Karlyn, Vatthauer
- 2010 - 2012** Ryan, Anderson
- 2010 - 2011** Jake, Williams
- 2008 - 2009** Anne, Nisenzon
- 2007 - 2008** Lauren, Stutts
- 2006 - 2007** Erin, O'Brien
- 2006 - 2007** Karen, Chung

## ■ Continuing Education (Delivered to external audience)

- 2015** Pain in the brain: Understanding nociception and placebo through neuroimaging; Regional meeting of the Society for Neuroscience (SFN), University of Arkansas Medical Sciences (UAMS), Little Rock, AR.
- 2010** Structural and Functional Brain Changes in Fibromyalgia: Investigation of Potential Mechanisms Associated with Central Sensitization in Chronic Pain (American Pain Society, Baltimore)
- 2007** Exploratory structural equation models of temporal summation of second pain: fMRI identifies chronic pain abnormalities. (University of Florida, Gainesville, Florida)
- 2007** Neuroanatomical changes induced by chronic pain. Center for Pain Research (University of Florida, Gainesville, Florida)
- 2007** Using fMRI and placebo to examine pain-related regional communication in individuals with Irritable Bowel Syndrome. Advanced Techniques for Modeling Cortical Connectivity (Emory University, Atlanta, Georgia)
- 2003** Conceptualizing relationships among reading, phonology and intelligence: Competing models (Norwegian Fulbright Foundation; Oslo, Norway)
- 2002** Conceptualizing statistical relationships among PIQ, VIQ, reading, and phonology: Competing models of the g factor. (University of Oslo Quantitative Forum; Oslo, Norway)
- 2002** Learning difficulties: A biological perspective. (International School; Oslo, Norway)

## ■ Continuing Education (Attended)

- 2007 Multilevel Modeling (University of Florida. Gainesville, Florida)
- 2006 fMRI: Advanced course in experimental design and image analysis (Medical College of Wisconsin)
- 2005 fMRI: An introductory course (Medical College of Wisconsin)
- 2000 ADHD: An intensive course on the nature and treatment of children and adolescents with Attention Deficit Hyperactivity Disorder (NEEI workshop, Detroit, Michigan)
- 1999 Pediatric psychopharmacology (NEEI workshop, Cape Cod, Massachusetts)
- 1996 Ethical issues and conflicts in the practice of clinical neuropsychology (National Academy of Neuropsychology. New Orleans, Louisiana)
- 1996 Diagnosis and treatment in mild head injury. (National Academy of Neuropsychology, New Orleans, Louisiana).
- 1996 Safety and efficacy of Tiagbine HCl as adjunctive treatment. Training for battery of psychological and neuropsychological tests for research protocol M92-825.(Chicago, Illinois)

## ■ Service to Field (Reviewer)

Archives of Physical Medicine and Rehabilitation  
Behavioral Sleep Medicine  
Biological Psychiatry  
Cerebral Cortex  
Clinical Journal of Pain  
Future Neurology  
Journal of Behavioral Medicine  
Journal of Magnetic Resonance Imaging  
Journal of Neuroscience  
Journal of Pain  
NeuroImage  
NeuroImage: Clinical  
Neuroscience  
Neuroscience Letters  
Pain  
PLOS ONE  
Psychiatry Research: Neuroimaging  
Rheumatology International (Clinical and Experimental Investigations)  
The Open Neuroimaging Journal

## ■ Clinical Experience

- 2000 - 2000 Behavioral Therapist: Pervasive Developmental Disorder Program, Department of Pediatrics, Cleveland Clinic, Cleveland, Ohio Supervisor: Tara Lineweaver, Ph.D.
- 2004 - 2005 Predoctoral Intern: University of Florida; Einstein Montessori School; Gainesville, Florida Supervisors: Myron Bilak, Ph.D.; Tim Conway, Ph.D.

## ■ Teaching Experience

- 1999 - 2000 Research Design and Methods, Department of Psychology, University of Memphis, Memphis, Tennessee

## ■ Grantsmanship

### Active

R01NR015314

National Institutes of Health/National Institute of Nursing Research  
Evaluation of pain signatures: Psychometric properties of imaging pain  
Principal Investigator (50%): Jason G Craggs, Ph.D.

R21HL121432

National Institutes of Health/National Heart, Lung, And Blood Institute  
Cognitive Behavioral Treatment for Improving Sleep In Overweight and Obese Youth Principal Investigator: Christina S. McCrae, Ph.D.  
Role: Co-Investigator (8%)

R01NR014049

National Institutes of Health/National Institute of Nursing Research  
Peripheral and Central Mechanisms of Fatigue and Pain in Patients with ME/CFS  
Principal Investigator: Roland Staud, M.D.  
Role: Co-Investigator (3%)

### Pending

National Institutes of Health/National Institute on Alcohol Abuse and Alcoholism (NIAAA)  
Investigating the neural mechanisms linking chronic pain and risk for alcohol use disorder  
Principal Investigators: Jason G Craggs, Ph.D.; Bruce D Bartholow, Ph.D.  
Role: Principal Investigator (40%)

National Institutes of Health/National Institute of Health  
Neural Mechanisms in Chronic Pain  
Principal Investigator: Christina S. McCrae, Ph.D.  
Role: Co-Investigator (20%)

National Institutes of Health/National Institute of Aging - National Cancer Institute  
Mitigating the Impact of Sleep and Mood on Endocrine and Immune Functioning in Older Caregivers of Dementia Patients  
Principal Investigator: Christina S. McCrae, Ph.D.  
Role: Co-Investigator

National Institutes of Health/National Institute of Aging  
Impact of Age on Fatigue, Fatigability, and Sleep in KTx  
Principal Investigator: Christina S. McCrae, Ph.D.  
Role: Co-Investigator

### Completed

R01AT001424-06

National Institutes of Health/National Center for Complementary and Alternative Medicine  
Brain Imaging and Pain: Analysis of Placebo Analgesia  
Principal Investigator: Michael E. Robinson, Ph.D.  
Role: Co-Investigator

R01AT006334-01

National Institutes of Health/National Center for Complementary and Alternative Medicine  
Central Mechanisms of Body Based Intervention for Musculoskeletal Low Back Pain  
Principal Investigator: Mark D. Bishop, Ph.D.  
Role: Co-Investigator

R01AR055160-02S1

National Institutes of Health/ National Institute of Arthritis and Musculoskeletal and Skin Diseases

Sleep and Pain Interventions in Fibromyalgia: Hyperalgesia and Central Sensitization  
Principal Investigator: Christina S. McCrae, Ph.D.  
Role: Co-Investigator

5R01AT001424

National Institutes of Health/National Center for Complementary and Alternative Medicine  
Brain Imaging and Pain: Analysis of Placebo Analgesia  
Principal Investigator: Michael E. Robinson, Ph.D.  
Role: Postdoctoral Fellow

5R01NS038767-06

National Institutes of Health/National Institute of Neurological Disorders and Stroke  
Mechanism of Pain in Patients with Fibromyalgia Syndrome  
Principal Investigator: Roland Staud, M.D.  
Role: Postdoctoral Fellow

## ■ Publications

### Articles

- [1] Charles W Gay, Michael E Robinson, Song Lai, Andrew M O'Shea, Jason G Craggs, Donald D Price, and Roland M Staud. Abnormal Resting-State Functional Connectivity in Patients with Chronic Fatigue Syndrome: Results of Seed and Data-Driven Analyses. *Brain Connectivity*, 6(1):48–56, February 2016.
- [2] Jeff Boissoneault, Karlyn Vathauer, Andrew M O'Shea, Jason G Craggs, Michael Robinson, Roland M Staud, Richard B Berry, William M Perlstein, Lori Waxenberg, and Christina S McCrae. Low-to-Moderate Alcohol Consumption is Associated With Hippocampal Volume in Fibromyalgia and Insomnia. *Behavioral sleep medicine*, pages 1–13, May 2016.
- [3] Jeff Boissoneault, Janelle Letzen, Song Lai, Andrew M O'Shea, Jason G Craggs, Michael E Robinson, and Roland M Staud. Abnormal resting state functional connectivity in patients with chronic fatigue syndrome: an arterial spin-labeling fMRI study. *Magnetic resonance imaging*, 34(4):603–608, May 2016.
- [4] Karlyn E Vathauer, Jason G Craggs, Michael E Robinson, Roland M Staud, Richard B Berry, William M Perlstein, and Christina S McCrae. Sleep is associated with task-negative brain activity in fibromyalgia participants with comorbid chronic insomnia. *Journal of Pain Research*, 8:819–827, 2015.
- [5] Landrew S Sevel, Andrew M O'Shea, Janelle E Letzen, Jason G Craggs, Donald D Price, and Michael E Robinson. Effective connectivity predicts future placebo analgesic response: A dynamic causal modeling study of pain processing in healthy controls. *NeuroImage*, 110:87–94, April 2015.
- [6] Landrew S Sevel, Jason G Craggs, Donald D Price, Roland M Staud, and Michael E Robinson. Placebo analgesia enhances descending pain-related effective connectivity: a dynamic causal modeling study of endogenous pain modulation. *Journal of Pain*, 16(8):760–768, August 2015.
- [7] Michael E Robinson, Andrew M O'Shea, Jason G Craggs, Donald D Price, Janelle E Letzen, and Roland M Staud. Comparison of machine classification algorithms for fibromyalgia: neuroimages versus self-report. *Journal of Pain*, 16(5):472–477, May 2015.
- [8] Christina S McCrae, Andrew M O'Shea, Jeff Boissoneault, Karlyn E Vathauer, Michael E Robinson, Roland M Staud, William M Perlstein, and Jason G Craggs. Fibromyalgia patients have reduced hippocampal volume compared with healthy controls. *Journal of Pain Research*, 8:47–52, 2015.
- [9] Janelle E Letzen, Landrew S Sevel, Charles W Gay, Andrew M O'Shea, Jason G Craggs, Donald D Price, and Michael E Robinson. Test-retest reliability of pain-related brain activity in healthy controls undergoing experimental thermal pain. *Journal of Pain*, 15(10):1008–1014, October 2014.
- [10] Jason G Craggs, Donald D Price, and Michael E Robinson. Enhancing the placebo response: functional magnetic resonance imaging evidence of memory and semantic processing in placebo analgesia. *Journal of Pain*, 15(4):435–446, April 2014.

- [11] Janelle E Letzen, Jason G Craggs, William M Perlstein, Donald D Price, and Michael E Robinson. Functional Connectivity of the Default Mode Network and Its Association With Pain Networks in Irritable Bowel Patients Assessed via Lidocaine Treatment. *The Journal of Pain*, 14(10):1077–1087, October 2013.
- [12] Ryan J Anderson, Jason G Craggs, Joel E Bialosky, M D Bishop, S Z George, Roland M Staud, and Michael E Robinson. Temporal summation of second pain: variability in responses to a fixed protocol. *European journal of pain (London, England)*, 17(1):67–74, January 2013.
- [13] Jason G Craggs, Roland M Staud, Michael E Robinson, William M Perlstein, and Donald D Price. Effective connectivity among brain regions associated with slow temporal summation of C-fiber-evoked pain in fibromyalgia patients and healthy controls. *Journal of Pain*, 13(4):390–400, April 2012.
- [14] Michael E Robinson, Jason G Craggs, Donald D Price, William M Perlstein, and Roland M Staud. Gray matter volumes of pain-related brain areas are decreased in fibromyalgia syndrome. *Journal of Pain*, 12(4):436–443, April 2011.
- [15] Adam T Hirsh, Alan L Braden, Jason G Craggs, and Mark P Jensen. Psychometric properties of the community integration questionnaire in a heterogeneous sample of adults with physical disability. *Archives of physical medicine and rehabilitation*, 92(10):1602–1610, October 2011.
- [16] Laura D Wandner, Lauren A Stutts, Ashraf F Alqudah, Jason G Craggs, Cindy D Scipio, Adam T Hirsh, and Michael E Robinson. Virtual human technology: patient demographics and healthcare training factors in pain observation and treatment recommendations. *Journal of Pain Research*, 3:241–247, 2010.
- [17] Erin M O’Brien, Roland M Staud, Alisa D Hassinger, Robert C McCulloch, Jason G Craggs, James W Atchison, Donald D Price, and Michael E Robinson. Patient-centered perspective on treatment outcomes in chronic pain. *Pain Medicine*, 11(1):6–15, January 2010.
- [18] Mark D Bishop, Jason G Craggs, Maggie E Horn, Steven Z George, and Michael E Robinson. Relationship of intersession variation in negative pain-related affect and responses to thermally-evoked pain. *Journal of Pain*, 11(2):172–178, February 2010.
- [19] Donald D Price, Jason G Craggs, QiQi Zhou, G Nicholas Verne, William M Perlstein, and Michael E Robinson. Widespread hyperalgesia in irritable bowel syndrome is dynamically maintained by tonic visceral impulse input and placebo/nocebo factors: evidence from human psychophysics, animal models, and neuroimaging. *NeuroImage*, 47(3):995–1001, September 2009.
- [20] Keith M McGregor, Jason G Craggs, Michelle L Benjamin, Bruce Crosson, and Keith D White. Age-Related Changes in Motor Control During Unimanual Movements. *Brain Imaging and Behavior*, 3(4):317–331, 2009.
- [21] Jason G Craggs, William M Perlstein, Donald D Price, and Michael E Robinson. An investigation into intervention strategies for irritable bowel syndrome (IBS): Using psychophysics and fMRI to investigate the treatment mechanisms of Lidocaine and placebo suggestions. *The Journal of Pain*, 10(4):S39, April 2009.
- [22] Lijun Bai, Wei Qin, Jie Tian, Peng Liu, LinLing Li, Peng Chen, Jianping Dai, Jason G Craggs, Karen M von Deneen, and Yijun Liu. Time-varied characteristics of acupuncture effects in fMRI studies. *Human Brain Mapping*, 30(11):3445–3460, November 2009.
- [23] Roland M Staud, Jason G Craggs, William M Perlstein, Michael E Robinson, and Donald D Price. Brain activity associated with slow temporal summation of C-fiber evoked pain in fibromyalgia patients and healthy controls. *European Journal of Pain*, 12(8):1078–1089, November 2008.
- [24] Christina S McCrae, Joseph P H McNamara, Meredith A Rowe, Joseph M Dzierzewski, Judith Dirk, Michael Marsiske, and Jason G Craggs. Sleep and affect in older adults: using multilevel modeling to examine daily associations. *Journal of sleep research*, 17(1):42–53, March 2008.
- [25] Jason G Craggs, Donald D Price, William M Perlstein, G Nicholas Verne, and Michael E Robinson. The dynamic mechanisms of placebo induced analgesia: Evidence of sustained and transient regional involvement. *Pain*, 139(3):660–669, October 2008.
- [26] Roland M Staud, Jason G Craggs, Michael E Robinson, William M Perlstein, and Donald D Price. Brain activity related to temporal summation of C-fiber evoked pain. *Pain*, 129(1-2):130–142, May 2007.

- [27] Donald D Price, Jason G Craggs, G Nicholas Verne, William M Perlstein, and Michael E Robinson. Placebo analgesia is accompanied by large reductions in pain-related brain activity in irritable bowel syndrome patients. *Pain*, 127(1-2):63–72, January 2007.
- [28] Jason G Craggs, Donald D Price, G Nicholas Verne, William M Perlstein, and Michael E Robinson. Functional brain interactions that serve cognitive–affective processing during pain and placebo analgesia. *NeuroImage*, 38(4):720–729, January 2007.
- [29] Scott R Miller, Carlin J Miller, Juliana S Bloom, George W Hynd, and Jason G Craggs. Right hemisphere brain morphology, attention-deficit hyperactivity disorder (ADHD) subtype, and social comprehension. *Journal of child neurology*, 21(2):139–144, February 2006.
- [30] Carlin J Miller, Scott R Miller, Juliana S Bloom, Lauren Jones, William Lindstrom, Jason G Craggs, Mauricio Garcia-Barrera, Margaret Semrud-Clikeman, Jeffrey W Gilger, and George W Hynd. Testing the double-deficit hypothesis in an adult sample. *Annals of dyslexia*, 56(1):83–102, June 2006.
- [31] Jason G Craggs, Juliana Sanchez, Michelle Y Kibby, Jeffrey W Gilger, and George W Hynd. Brain morphology and neuropsychological profiles in a family displaying dyslexia and superior nonverbal intelligence. *Cortex*, 42(8):1107–1118, November 2006.
- [32] Tom Fagan and Jason G Craggs. Las Vegas NASP Conventions: Historical Comparisons. *Communiqué*, 27(6):16, 1999.

## Abstracts

- [1] A Smith, J Weber, K Boland, and Jason G Craggs. (327) Alterations in mood are associated with dysfunctional effective connectivity in the default mode network (DMN), reward and memory related brain regions in a chronic pain population. In *American Pain Society*, pages S56–S57, April 2017.
- [2] M Johnson, J Weber, Christina S McCrae, and Jason G Craggs. (397) The Catch 22 of insomnia and chronic pain: Exploring how insomnia and sleep impact the neural correlates of chronic pain. In *American Pain Society*, pages S73–S74. Elsevier, April 2017.
- [3] K Boland, A Smith, J Weber, and Jason G Craggs. (367) Resting State Differences Following Mood Induction in Chronic Pain. In *American Pain Society*, page S66, April 2017.
- [4] Landrew S Sevel, Jason G Craggs, Donald D Price, Roland M Staud, and Michael E Robinson. Placebo analgesia enhances descending pain-related effective connectivity: a dynamic causal modeling study of endogenous pain modulation. In *American Pain Society*, page S54. Elsevier, April 2015.
- [5] Andrew M O’Shea, Charles W Gay, Michael E Robinson, Jason G Craggs, and Roland M Staud. Gray matter abnormalities in chronic fatigue syndrome. In *American Pain Society*, page S54. Elsevier, January 2015.
- [6] Charles W Gay, Andrew M O’Shea, Michael E Robinson, Jason G Craggs, and Roland M Staud. Default mode network connectivity in chronic fatigue syndrome patients. In *American Pain Society*, page S54. Elsevier, April 2015.
- [7] Jason G Craggs, Andrew M O’Shea, Ricky Madhavan, Donald D Price, Song Lai, Michael E Robinson, and Roland M Staud. Regional cerebral blood flow abnormalities in patients with chronic fatigue after a fatiguing task using arterial spin labeling. In *American Pain Society*, page S34. Elsevier, April 2015.
- [8] Jason G Craggs, Andrew M O’Shea, Ricky Madhavan, Song Lai, Donald D Price, Michael E Robinson, and Roland M Staud. Resting regional cerebral blood flow abnormalities of fronto-parietal brain areas in patients with chronic fatigue using arterial spin labeling. In *American Pain Society*, page S35. Elsevier, April 2015.
- [9] Karlyn E Vathauer, Andrew M O’Shea, Jeff Boissoneault, Jason G Craggs, Michael E Robinson, Roland M Staud, Richard B Berry, William M Perlstein, Lori B Waxenberg, and Christina S McCrae. Low-to-Moderate Alcohol Consumption Is Associated with Greater Hippocampal Volume In Individuals with Comorbid Chronic Insomnia and Fibromyalgia. In *SLEEP*, 2014.
- [10] Andrew M O’Shea, Christina S McCrae, Karlyn Vathauer, Michael E Robinson, Roland M Staud, William M Perlstein, and Jason G Craggs. Bilateral hippocampal volume reductions in fibromyalgia. In *American Pain Society*, page S53. Elsevier, April 2014.



- [11] Jennifer M Mundt, Jason G Craggs, Michael E Robinson, Andrew M O'Shea, Roland M Staud, Richard B Berry, William M Perlstein, Lori B Waxenberg, and Christina S McCrae. Changes in Sleep and Pain Predict Gray Matter Changes in Fibromyalgia Patients. In *SLEEP*, 2014.
- [12] Christina S McCrae, Jason G Craggs, Karlyn E Vathauer, Jennifer M Mundt, Andrew M O'Shea, Roland M Staud, Richard B Berry, William M Perlstein, Lori B Waxenberg, and Michael E Robinson. Neuroplasticity in Comorbid Chronic Pain and Chronic Insomnia: Impact of Improved Sleep on Central Sensitization. In *SLEEP*, 2014.
- [13] Charles W Gay, Jason G Craggs, Michael E Robinson, and Mark D Bishop. Changes in resting-state functional connectivity that are related increased pain sensitivity in a model of acute low back pain. In *American Pain Society*, page S57. Elsevier, April 2014.
- [14] Karlyn Vathauer, Jason G Craggs, Michael E Robinson, Roland M Staud, Donald D Price, William M Perlstein, Lori B Waxenberg, and Christina S McCrae. Sleep and Pain Predict Decreased Rest Activity in Participants with Comorbid Insomnia and Fibromyalgia. In *SLEEP*, 2013.
- [15] Andrew M O'Shea, Jason G Craggs, Michael E Robinson, Roland M Staud, Richard B Berry, Donald D Price, William M Perlstein, and C McCrae. Comorbid Diagnosis of Insomnia and Chronic Pain Associated with Diffuse Cortical Thinning. In *SLEEP*, page A215, 2013.
- [16] Charles W Gay, Andrew M O'Shea, Jason G Craggs, and Mark D Bishop. Gray matter density in the primary somatosensory cortex explains individual differences in the intensity of delayed onset muscle soreness. In *American Pain Society*, page S51. Elsevier, April 2013.
- [17] Jason G Craggs, Andrew M O'Shea, William M Perlstein, Donald D Price, Roland M Staud, and Michael E Robinson. Regional gray matter predicts placebo response: a study of endogenous pain modulation in healthy individuals. In *American Pain Society*, page S52. Elsevier, April 2013.
- [18] Karlyn E Vathauer, Jason G Craggs, Michael E Robinson, Roland M Staud, Richard B Berry, Donald D Price, William M Perlstein, Lori B Waxenberg, and Christina S McCrae. Sleep Predicts Resting Brain Activity In Fibromyalgia Participants With Insomnia. In *SLEEP*, pages A293–A293. Amer Acad Sleep Medicine One Westbrook Corporate Ctr, Ste 920, Westchester, IL 60154 USA, 2012.
- [19] Ryan J Anderson, Jason G Craggs, Joel E Bialosky, Mark D Bishop, Steven Z George, Roland M Staud, and Michael E Robinson. Variability in response to a temporal summation of second pain protocol: Not everyone winds up. In *World Congress on Pain*, 2012.
- [20] Karlyn E Vathauer, Christina S McCrae, Meredith A Rowe, Richard B Berry, and Jason G Craggs. Does Variability in Mood and Sleep Predict Cognition in Older Adults? In *SLEEP*, 2011.
- [21] Jason G Craggs, Donald D Price, William M Perlstein, and Michael E Robinson. Mechanisms of sustained placebo analgesia: fMRI identifies involvement of non-pain processes. In *American Pain Society*, pages P42–P42. Churchill Livingstone, 2011.
- [22] Jacob M Williams, Michael E Robinson, Lori B Waxenberg, Michael Marsiske, Roland M Staud, C McCrae, and Jason G Craggs. Characterization of Sleep Among Older Good Sleepers, Older Adults with Insomnia, and Fibromyalgia Patients with Insomnia. In *SLEEP*, 2010.
- [23] Jason G Craggs, Michael E Robinson, Donald D Price, William M Perlstein, and Roland M Staud. Structural and functional brain changes in fibromyalgia: investigation of potential mechanisms associated with central sensitization in chronic pain. In *American Pain Society*, pages S32–S32. Churchill Livingstone, 2010.
- [24] Alan L Braden, Adam T Hirsh, Jason G Craggs, and Mark P Jensen. Psychometric Properties of the Community Integration Questionnaire in Adults with Disabilities. In *Society for Behavioral Medicine*, Seattle, 2010.
- [25] Anne Nisenzon, Cindy D Scipio, Danielle Roditi, S Karen Chung, Donald D Price, Jason G Craggs, and Michael E Robinson. The role of expectations in predicting pain response in a repeated placebo design. In *American Pain Society*, pages S64–S64. Churchill Livingstone, 2009.
- [26] Lauren A Stutts, E Banou, R McCulloch, Jason G Craggs, Lori B Waxenberg, H Gremillion, and Michael E Robinson. Incorporating the facial pain patient's perspective into treatment: Comparisons across three pain groups. In *American Pain Society*, pages 63–63. Churchill Livingstone, 2008.

- [27] Roland M Staud, E O'Brien, Jason G Craggs, S Peak, E Koo, Donald D Price, and Michael E Robinson. Fibromyalgia patients have high expectations of symptom relief during rheumatology office visits. In *American Pain Society*, page 68, April 2008.
- [28] Erin Dannecker and Jason G Craggs. (340) Prospective analysis of the relationship between pain responses and symptom reports. In *American Pain Society*, pages 61–61, January 2008.
- [29] Jason G Craggs, Donald D Price, William M Perlstein, and Michael E Robinson. Mechanisms of Placebo Analgesia: fMRI identifies sustained and transient regional involvement. In *American Pain Society*, pages 10–10. Churchill Livingstone, 2008.
- [30] Erin M O'Brien, Robert C McCulloch, Alisa D Hassinger, Jason G Craggs, Roland M Staud, and Michael E Robinson. (838):Incorporating the patient's perspective into treatment: Unique subgroups in fibromyalgia. In *American Pain Society*, pages S60–S60, January 2007.
- [31] Jason G Craggs, Donald D Price, William M Perlstein, G Nicholas Verne, and Michael E Robinson. (639):fMRI identifies differential pain/analgesic structures: Placebo analgesia is a temporal derivative of anticipation. In *American Pain Society*, pages S10–S10, January 2007.
- [32] Michael E Robinson, Jason G Craggs, G Nicholas Verne, William M Perlstein, and Donald D Price. (887):Placebo analgesia is accompanied by active afferent inhibition during painful stimulation. In *American Pain Society*, pages S72–S72, January 2006.
- [33] Jason G Craggs, Donald D Price, William M Perlstein, G Nicholas Verne, and Michael E Robinson. Using fMRI to examine the efficacy of placebo in irritable bowel syndrome patients (IBS): Insights into novel intervention strategies. In *American Pain Society*, pages S16–S16. Churchill Livingstone, 2006.
- [34] S Karen Chung, Donald D Price, G Nicholas Verne, William M Perlstein, Jason G Craggs, and Michael E Robinson. Post-placebo effects in IBS patients: Does knowledge of a personal past placebo response affect mood and/or attitudes about pain? In *American Pain Society*, page S76. Churchill Livingstone, 2006.
- [35] Carlin J Miller, George W Hynd, and Jason G Craggs. Is biology destiny? Neuropsychological evidence for the remediation of reading deficits. In *Society for Neuroscience*, pages 794–794, 2002.
- [36] Michelle Y Kibby, Jason G Craggs, V V Dave, J D Allison, and George W Hynd. Are the networks involved in semantic and phonetic short-term memory common or distinct? In *International Neurological Society*, page 166. Journal of Cognitive Neuroscience, 2002.
- [37] Jason G Craggs, Michelle Y Kibby, V V Dave, J D Allison, K Shea, Morris J Cohen, and George W Hynd. Common and distinct neural substrates implicated in basic semantic and phonetic processing: An fMRI study. In *International Neurological Society*, pages 160–160, 2002.
- [38] Jason G Craggs and George W Hynd. Volumetric and hemispheric evidence of developmental dyslexia: A familial case study. In *Society for Neuroscience*, 2001.
- [39] L A Martin, Jason G Craggs, D Goldowitz, and Guy Mittleman. The role of Purkinje cells in behavior: a novel mouse model to study autism. In *Society for Neuroscience*, 2000.
- [40] Jason G Craggs and Lisa D Stanford. Lateralized cognitive processing in children with epilepsy: does one side fit all? In *Society for Neuroscience*, pages 805–805. Oxford University Press, November 2000.
- [41] Jason G Craggs and Guy Mittleman. Verbal and nonverbal test performance in children with lateralized epileptiform activity. In *Society for Neuroscience*, 2000.
- [42] Jason G Craggs. The universal nonverbal intelligence test: internal self-talk in children with attention-deficit/hyperactivity disorder (ADHD). In *Society for Neuroscience*, pages 688–689. Oxford University Press, November 2000.
- [43] Lisa D Stanford, H Hammer, Jason G Craggs, and E Wyllie. IQ and memory testing to predict side of lesion and pass/fail on intracarotid amobarbital procedure in children with epilepsy. In *American Epilepsy Society*. Multidisciplinary Digital Publishing Institute, 1997.
- [44] Jason G Craggs, Allen E Thornton, and Rick I Naugle. Mesial temporal sclerosis and memory functioning: Evidence for material specific deficits. In *International Neurological Society*, pages 417–417. Oxford University Press, January 1997.

- [45] Jason G Craggs, Lisa D Stanford, and Allen E Thornton. Neuropsychological functioning and seizure focus: Relationship to academic achievement in children with epilepsy. In *Society for Neuroscience*, pages 303–303. Oxford University Press, January 1997.
- [46] Deborah C Koltai, Gordon J Chelune, Jason G Craggs, and Koltai. A comparison of the dissociation of recall and recognition items on the mattis DRS and rey AVLT in an elderly sample. In *International Neurological Society*, pages 410–411. Oxford University Press, January 1996.