



Jason G Craggs, Ph.D.

July 25, 2023
University of South Florida
Tampa, FL. 33613
Phone (cell): (352) 359-1367
Email: jasoncraggs@usf.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

2023 - Assistant Professor, Morsani College of Medicine, The Department of Psychiatry and Behavioral Neuroscience, The University of South Florida

2015 - 2023 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

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 nearly two decades 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 - 2020** American Pain Society (APS)
- 2001 - 2020** International Neuropsychological Society (INS)
- 1998 - 2019** 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 Yezierski, 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

- 2021 - 2023** SHP Faculty Council Nominee
- 2020 - 2023** Preparing Future Faculty – Faculty Diversity Postdoctoral Program
- 2019 - 2023** SHP Policy Committee
- 2016 - 2023** Member of Graduate Faculty
- 2016 - 2023** Member of Doctoral Faculty
- 2016 - 2021** Steering committee for the Brain Imaging Center
- 2013 - 2015** Member of Senate IT committee (University of Florida)
- 2010 - 2015** Member of Graduate School (University of Florida)
- 1998 - 2000** Graduate Student Coordinating Committee Member (University of Memphis)
- 1998 - 2000** Undergraduate Curriculum Committee Member (University of Memphis)

■ Courses Taught (Official UM Record: Fall 2017 - Spring 2022)

2022	PSYCH 4490W Pain and the Brain Capstone
2022	PSYCH 2210 Mind Brain & Behavior
2021	PSYCH 4003 Pain and the Brain
2020	PSYCH 4010W Pain and the Brain Capstone
2019	PSYCH 4010W Pain and the Brain Capstone
2019	PT_THR 6610 - Assessment and Neuropsychology of Pain
2018	PSYCH 4010W Pain and the Brain Capstone
2018	PT_THR 7850 - Assessment and Neuropsychology of Pain
2017	PSYCH 4003 Pain and the Brain
2017	PT_THR 7850 - Assessment and Neuropsychology of Pain

■ Mentorship of Students, Interns, Residents, and Fellows

2017 - 2023	Jessica Hua
2017 - 2023	Kelsey Straub
2016 - 2021	Kelly Boland
2016 - 2018	Meredith Johnson
2012 - 2014	Jennifer Mundt
2012 - 2014	Landrew Sevel
2012 - 2014	Janelle Letzen
2011 - 2014	Charles Gay
2010 - 2014	Karlyn Vathauer
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)

2018	MRI Data Collection and Analysis Workshop (weekly)
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 HCI as adjunctive treatment. Training for battery of psychological and neuropsychological tests for research protocol M92-825.(Chicago, Illinois)

■ Service to Field (Reviewer)

- 2009 - Archives of Physical Medicine and Rehabilitation
- 2016 - Behavioral Sleep Medicine
- 2010 - Biological Psychiatry
- 2008 - Cerebral Cortex
- 2015 - Clinical Journal of Pain
- 2013 - Future Neurology
- 2011 - Journal of Behavioral Medicine
- 2009 - Journal of Magnetic Resonance Imaging
- 2008 - Journal of Neuroscience
- 2004 - Journal of Pain
- 2006 - NeuroImage
- 2009 - NeuroImage: Clinical
- 2010 - Neuroscience
- 2011 - Neuroscience Letters
- 2012 - Pain
- 2011 - PLOS ONE
- 2008 - Psychiatry Research: Neuroimaging
- 2005 - Rheumatology International (Clinical and Experimental Investigations)
- 2007 - 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

R01 NR017168-01A1
 National Institutes of Health/National Institute of Nursing Research
 Impact of CBT for Insomnia on Pain Symptoms and Central Sensitization in Fibromyalgia
 Role: Co-Investigator

TRIUMPH School of Medicine U of Missouri (McCrae, PI), (03/12/2021-03/11/2023)
 Impact of Improving Sleep and Reducing Opioid Use on Central Pain Processing
 Role: Co-Investigator
 Total costs: \$97,311

Pending

R01 NR018199 (McCrae) 10/01/2018 ? 09/30/2023

NIH/NINR \$490,759 annual direct

Effect of CBT for Insomnia on Clinical Pain in Fibromyalgia: Mediating Impact of Sleep, Arousal, and Central Sensitization

Role: Co-Investigator

Submitted

R01: (Resubmission) Pain and alcohol: An Inquiry into the Neural Mechanisms Linking Chronic Pain, Alcohol Analgesia, and Alcohol Sensitivity

NIH NATL INST OF HEALTH

Role: Principal Investigator

Total costs: \$3,809,571.00

R01: Linking Modifiable Risk Factors (Sleep, Pain and Arousal) to Alzheimer's Disease Related Biomarkers

NIH NATL INST OF HEALTH

Role: Co-Investigator

Total costs: \$380,050.00

R01: Improving Sleep and Reducing Opioid Use in Individuals with Chronic Pain

NIH NATL INST OF HEALTH Role: Co-Investigator

Total costs: \$3,792,154.00

R01: NR018199 Effect of CBT for Insomnia on Clinical Pain in Fibromyalgia: Mediating Impact of Sleep, Arousal, and Central Sensitization

NIH/NINR

Role: Co-Investigator

Total costs: \$490,759

NIAMS Mechanistic Ancillary Study

Cognition and Pain in Fibromyalgia: Uncovering Behavioral and Neural Chronic Pain Mechanisms

Role: Co-Investigator

NIH National Institute of Health

Effect of CBT for insomnia on clinical pain in fibromyalgia: Mediating impact of sleep, arousal, and central sensitization

Role: Co-Investigator

NIH National Institute of Health

Targeting Sleep and Hyperarousal in Children with Autism Spectrum Disorder

Role: Co-Investigator

NIH 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

NIH National Institute of Health

Impact of CBT for Insomnia on Pain Symptoms and Central Sensitization in Fibromyalgia

Role: Co-Investigator

NIH National Institute of Nursing Research

Evaluation of pain signatures: Psychometric properties of imaging pain

Role: Principal Investigator

In Preparation

NIH 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, Spring 2019

NIH National Institute of Health
Sleep, Cognition, and Pain in Fibromyalgia: Uncovering Chronic Pain Mechanisms
Role: Co-Investigator, Summer 2019

Completed

R01NR015314
National Institutes of Health/National Institute of Nursing Research
Evaluation of pain signatures: Psychometric properties of imaging pain
Role: Principal Investigator

R21HL121432
National Institutes of Health/National Heart, Lung, And Blood Institute
Cognitive Behavioral Treatment for Improving Sleep In Overweight and Obese Youth
Role: Co-Investigator

R01NR014049
National Institutes of Health/National Institute of Nursing Research
Peripheral and Central Mechanisms of Fatigue and Pain in Patients with ME/CFS
Role: Co-Investigator

R01AT001424-06
National Institutes of Health/National Center for Complementary and Alternative Medicine
Brain Imaging and Pain: Analysis of Placebo Analgesia
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
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
Role: Co-Investigator

5R01AT001424
National Institutes of Health/National Center for Complementary and Alternative Medicine
Brain Imaging and Pain: Analysis of Placebo Analgesia
Role: Postdoctoral Fellow

5R01NS038767-06
National Institutes of Health/National Institute of Neurological Disorders and Stroke
Mechanism of Pain in Patients with Fibromyalgia Syndrome
Role: Postdoctoral Fellow

▀ Publications

Articles

- [1] C. S. McCrae, J. G. Craggs, A. F. Curtis, N. Nair, D. Kay, R. Staud, R. B. Berry, and M. E. Robinson. Neural activation changes in response to pain following cognitive behavioral therapy for patients with comorbid fibromyalgia and insomnia: a pilot study. *J Clin Sleep Med*, 18(1):203–215, Jan 2022. PMID: PMC8807905.
- [2] C. S. McCrae, A. F. Curtis, J. Craggs, C. Deroche, P. Sahota, C. Siva, R. Staud, and M. Robinson. Protocol for the impact of CBT for insomnia on pain symptoms and central sensitisation in fibromyalgia: a randomised controlled trial. *BMJ Open*, 10(9):e033760, 09 2020. PMID: PMC7493102. Impact Factor: 2.692.
- [3] R. Staud, J. Boissoneault, J. G. Craggs, S. Lai, and M. E. Robinson. Task Related Cerebral Blood Flow Changes of Patients with Chronic Fatigue Syndrome: An Arterial Spin Labeling Study. *Fatigue*, 6(2):63–79, 2018. PMID: PMC5914525.
- [4] C. S. McCrae, J. M. Mundt, A. F. Curtis, J. G. Craggs, A. M. O’Shea, R. Staud, R. B. Berry, W. M. Perlstein, and M. E. Robinson. Gray matter changes following cognitive behavioral therapy for patients with comorbid fibromyalgia and insomnia: a pilot study. *Journal of Clinical Sleep Medicine*, 14(9):1595–1603, 2018.
- [5] C. S. McCrae, J. M. Mundt, A. F. Curtis, J. G. Craggs, A. M. O’Shea, R. Staud, R. B. Berry, W. M. Perlstein, and M. E. Robinson. Gray Matter Changes Following Cognitive Behavioral Therapy for Patients With Comorbid Fibromyalgia and Insomnia: A Pilot Study. *Journal of Clinical Sleep Medicine*, 14(9):1595–1603, Sep 2018. PMID: PMC6134244. Impact Factor: 4.062.
- [6] E. W. Yeung, J. G. Craggs, and I. R. Gizer. Comorbidity of Alcohol Use Disorder and Chronic Pain: Genetic Influences on Brain Reward and Stress Systems. *Alcoholism, clinical and experimental research*, 41(11):1831–1848, November 2017. PMID: 29048744. Impact Factor: 3.455.
- [7] J. Boissoneault, K. Vathauer, A. M. O’Shea, J. G. Craggs, M. Robinson, R. M. Staud, R. B. Berry, W. M. Perlstein, L. Waxenberg, and C. S. McCrae. Low-to-Moderate Alcohol Consumption is Associated With Hippocampal Volume in Fibromyalgia and Insomnia. *Behavioral sleep medicine*, 15(6):438–450, November 2017. PMID: 27144807. Impact Factor: 2.964.
- [8] C. W. Gay, M. E. Robinson, S. Lai, A. M. O’Shea, J. G. Craggs, D. D. Price, and R. 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. PMID: PMC4744887. Impact Factor: 2.262.
- [9] J. Boissoneault, J. Letzen, S. Lai, A. M. O’Shea, J. G. Craggs, M. E. Robinson, and R. 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. PMID: PMC4801728. Impact Factor: 2.546.
- [10] K. E. Vathauer, J. G. Craggs, M. E. Robinson, R. M. Staud, R. B. Berry, W. M. Perlstein, and C. 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. PMID: PMC4648619. Impact Factor: 2.236.
- [11] L. S. Sevel, A. M. O’Shea, J. E. Letzen, J. G. Craggs, D. D. Price, and M. 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. PMID: PMC4380552. Impact Factor: 5.812.
- [12] L. S. Sevel, J. G. Craggs, D. D. Price, R. M. Staud, and M. 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. PMID: PMC4522336. Impact Factor: 5.424.
- [13] M. E. Robinson, A. M. O’Shea, J. G. Craggs, D. D. Price, J. E. Letzen, and R. M. Staud. Comparison of machine classification algorithms for fibromyalgia: neuroimages versus self-report. *Journal of Pain*, 16(5):472–477, May 2015. PMID: PMC4424119. Impact Factor: 5.424.
- [14] C. S. McCrae, A. M. O’Shea, J. Boissoneault, K. E. Vathauer, M. E. Robinson, R. M. Staud, W. M. Perlstein, and J. G. Craggs. Fibromyalgia patients have reduced hippocampal volume compared with healthy controls. *Journal of Pain Research*, 8:47–52, 2015. PMID: PMC4321661. Impact Factor: 2.236.
- [15] R. M. Staud, M. E. Robinson, D. D. Price, W. M. Perlstein, C. S. McCrae, J. G. Craggs, S. Lai, and L. B. Waxenberg. Role of Non-Restorative Sleep in Fibromyalgia and Chronic Fatigue Syndrome. January 2014.

- [16] J. E. Letzen, L. S. Sevel, C. W. Gay, A. M. O'Shea, J. G. Craggs, D. D. Price, and M. 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. PMID: PMC4182117. Impact Factor: 5.424.
- [17] J. G. Craggs, D. D. Price, and M. 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. PMID: PMC4004374. Impact Factor: 5.424.
- [18] A. M. O'Shea, J. G. Craggs, M. E. Robinson, R. M. Staud, R. B. Berry, D. D. Price, W. M. Perlstein, and C. McCrae. Comorbid Diagnosis of Insomnia and Chronic Pain Associated with Diffuse Cortical Thinning. *Sleep*, 36(Abstract Supplement):A215, 2013. Impact Factor: 4.571.
- [19] J. E. Letzen, J. G. Craggs, W. M. Perlstein, D. D. Price, and M. E. Robinson. Functional Connectivity of the Default Mode Network and Its Association With Pain Networks in Irritable Bowel Patients Assessed via Lidocaine Treatment. *Journal of Pain*, 14(10):1077–1087, October 2013. PMID: PMC3791210. Impact Factor: 5.424.
- [20] R. J. Anderson, J. G. Craggs, J. E. Bialosky, M. D. Bishop, S. Z. George, R. M. Staud, and M. E. Robinson. Temporal summation of second pain: variability in responses to a fixed protocol. *European Journal of Pain*, 17(1):67–74, January 2013. PMID: PMC3502719. Impact Factor: 3.188.
- [21] J. G. Craggs, R. M. Staud, M. E. Robinson, W. M. Perlstein, and D. 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. PMID: PMC3321832. Impact Factor: 5.424.
- [22] M. E. Robinson, J. G. Craggs, D. D. Price, W. M. Perlstein, and R. M. Staud. Gray matter volumes of pain-related brain areas are decreased in fibromyalgia syndrome. *Journal of Pain*, 12(4):436–443, April 2011. PMID: PMC3070837. Impact Factor: 5.424.
- [23] A. T. Hirsh, A. L. Braden, J. G. Craggs, and M. 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. PMID: PMC3371822. Impact Factor: 2.697.
- [24] L. D. Wandner, L. A. Stutts, A. F. Alqudah, J. G. Craggs, C. D. Scipio, A. T. Hirsh, and M. 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. PMID: PMC3033032. Impact Factor: 2.236.
- [25] E. M. O'Brien, R. M. Staud, A. D. Hassinger, R. C. McCulloch, J. G. Craggs, J. W. Atchison, D. D. Price, and M. E. Robinson. Patient-centered perspective on treatment outcomes in chronic pain. *Pain Medicine*, 11(1):6–15, January 2010. PMID: 19732374. Impact Factor: 2.764.
- [26] M. D. Bishop, J. G. Craggs, M. E. Horn, S. Z. George, and M. 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. PMID: PMC2822036. Impact Factor: 5.424.
- [27] D. D. Price, J. G. Craggs, Q. Zhou, G. N. Verne, W. M. Perlstein, and M. 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. PMID: PMC2844701. Impact Factor: 5.812.
- [28] K. M. McGregor, J. G. Craggs, M. L. Benjamin, B. Crosson, and K. D. White. Age-Related Changes in Motor Control During Unimanual Movements. *Brain Imaging and Behavior*, 3(4):317–331, 2009. Impact Factor: 3.418.
- [29] J. G. Craggs, W. M. Perlstein, D. D. Price, and M. 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. *Journal of Pain*, 10(4):S39, April 2009. Impact Factor: 5.424.
- [30] L. Bai, W. Qin, J. Tian, P. Liu, L. Li, P. Chen, J. Dai, J. G. Craggs, K. M. von Deneen, and Y. Liu. Time-varied characteristics of acupuncture effects in fMRI studies. *Human Brain Mapping*, 30(11):3445–3460, November 2009. PMID: 19350547. Impact Factor: 4.554.
- [31] R. M. Staud, J. G. Craggs, W. M. Perlstein, M. E. Robinson, and D. 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. PMID: PMC2582560. Impact Factor: 3.188.

- [32] C. S. McCrae, J. P. H. McNamara, M. A. Rowe, J. M. Dzierzewski, J. Dirk, M. Marsiske, and J. 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. PMID: PMC2923492. Impact Factor: 3.432.
- [33] J. G. Craggs, D. D. Price, W. M. Perlstein, G. N. Verne, and M. E. Robinson. The dynamic mechanisms of placebo induced analgesia: Evidence of sustained and transient regional involvement. *Pain*, 139(3):660–669, October 2008. PMID: PMC2723185. Impact Factor: 6.029.
- [34] R. M. Staud, J. G. Craggs, M. E. Robinson, W. M. Perlstein, and D. D. Price. Brain activity related to temporal summation of C-fiber evoked pain. *Pain*, 129(1-2):130–142, May 2007. PMID: PMC1997296. Impact Factor: 6.029.
- [35] D. D. Price, J. G. Craggs, G. N. Verne, W. M. Perlstein, and M. 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. PMID: 16963184. Impact Factor: 6.029.
- [36] J. G. Craggs, D. D. Price, G. N. Verne, W. M. Perlstein, and M. E. Robinson. Functional brain interactions that serve cognitive–affective processing during pain and placebo analgesia. *NeuroImage*, 38(4):720–729, January 2007. PMID: PMC2100389. Impact Factor: 5.812.
- [37] S. R. Miller, C. J. Miller, J. S. Bloom, G. W. Hynd, and J. 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. PMID: 16566878. Impact Factor: 2.092.
- [38] C. J. Miller, S. R. Miller, J. S. Bloom, L. Jones, W. Lindstrom, J. G. Craggs, M. Garcia-Barrera, M. Semrud-Clikeman, J. W. Gilger, and G. W. Hynd. Testing the double-deficit hypothesis in an adult sample. *Annals of dyslexia*, 56(1):83–102, June 2006. PMID: 17849209. Impact Factor: 2.171.
- [39] J. G. Craggs, J. Sanchez, M. Y. Kibby, J. W. Gilger, and G. W. Hynd. Brain morphology and neuropsychological profiles in a family displaying dyslexia and superior nonverbal intelligence. *Cortex*, 42(8):1107–1118, November 2006. PMID: 17209416. Impact Factor: 4.275.
- [40] T. Fagan and J. G. Craggs. Las Vegas NASP Conventions: Historical Comparisons. *Communiqué*, 27(6):16, 1999.
- [41] J. G. Craggs, A. E. Thornton, and R. I. Naugle. Mesial temporal sclerosis and memory functioning: Evidence for material specific deficits. *Archives of Clinical Neuropsychology : The Official Journal of the National Academy of Neuropsychologists*, 12(4):417–417, January 1997.

Symposiums & Oral Presentations

- [1] Curtis, A. F., Nair, N., Craggs, J. G., McGovney*, K., McCrae, C. S. (2023, November). Interactive Role of Sleep and Arousal on Cognition and Brain Structure in Chronic Pain Patients. As part of the Symposium presentation; Kaufmann, C. N. (co-chair), Lee, S. (co-chair), Smith, C. E. (presenter), Yue, Y. (presenter), Ji, L. (presenter), Chen, T-Y. (presenter), Curtis, A. F. (presenter), McCrae, C. S. (discussant), "Mechanisms Underlying Sleep and Development of Chronic Conditions in Older Adults". Accepted for presentation at the Gerontological Society of America Annual Meeting, Tampa, FL.
- [2] Nair, N., Curtis, A. F., Craggs, J., & McCrae, C. S. (2022, June). Effect of sleep on the relationship between pain related disability and neural correlates of pain processing in adults with fibromyalgia and insomnia. Annual SLEEP meeting of the American Academy of Sleep Medicine and the Sleep Research Society, Charlotte, NC.
- [3] Shoemaker, S.D., Stearns, M.A., Miller, M.B., Curtis, A.F., Guandique, A., McGovney*, K., Sparrow, E., Craggs, J., Robinson, M., Sahota, P., Siva, C., Staud, R., & McCrae, C.S. (2022, November). Alcohol consumption moderates depression and alcohol in adults with insomnia and chronic pain. 2022 56th Annual Association for Behavioral and Cognitive Therapies Conference, New York City, United States.
- [4] Curtis, A. F., Nair, N., Craggs, J., McGovney*, K., & McCrae, C. S. (2021, June). Sleep and gray matter volume: The role of physiological arousal. Annual SLEEP meeting of the American Academy of Sleep Medicine and the Sleep Research Society. (Virtual Meeting due to COVID-19).
- [5] McCrae, C., Craggs, J. G., Curtis, A. F., Nair, N., Kay, D., Staud, R., Berry, R. B., & Robinson, M. E. (2021, September). Neural activation in Response to Pain Changes Following Cognitive Behavioral Therapy for Patients with

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[6] Nair, N., Curtis, A. F., Stephens*, R. L., Hayse, B., Studdard, P., Craggs, J. G., McCrae, C. S. (2021, June). Cortical thickness moderates association between sleep architecture and pain in adults with fibromyalgia. Annual SLEEP meeting of the American Academy of Sleep Medicine and the Sleep Research Society (virtual meeting due to COVID-19).

[7] Curtis, A. F., Nair, N., Craggs, J. G., McGovney, K.*, & McCrae, C. S. (2020, November, virtual presentation due to COVID-19). Frontal cortical gray matter volume moderates associations between pain and cognitive performance in adults with chronic widespread pain and insomnia. 2nd Annual Society of Behavioral Sleep Medicine Scientific Meeting. (Virtual meeting due to COVID-19).

[8] McCrae, C. S., Craggs, J. G., Curtis, A. F., Staud, R., Berry, R. B., Robinson, M. (2020, August). Objective Sleep and Neural Response to Thermal Pain Testing following Cognitive Behavioral Treatment in Patients with Comorbid Insomnia and Fibromyalgia: A Pilot Study. Annual SLEEP meeting of the American Academy of Sleep Medicine and the Sleep Research Society. (Virtual Meeting due to COVID-19)

Invited Commentaries and Reviews

[1] McCrae CS, Curtis A. F., Stearns MA, & Craggs JC. (in press). Fibromyalgia and the Brain: What's Sleep got to do with it? Current Sleep Medicine Reports.

Manuscripts in submission

[1] Curtis, A. F., Nair, N., Hayse, B., McGovney*, K., Mikula, C., Halder*, P., Craggs, J. G., Kiselica, A., & McCrae, C. S. (under revision). Preliminary Investigation of the Interactive Role of Physiological Arousal and Insomnia in Gray Matter Volume Alterations in Chronic Widespread Pain. Journal of Clinical Sleep Medicine.

In progress (*current or former mentee)

[1] Craggs J. G., Smith A., Straub K.*, Boland K.*, Weber J., Johnson M.*, Peng H., 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

[2] Craggs J. G., Smith A., Straub K.*, Boland K.*, Weber J., Johnson M.*, Peng H., Resting State Differences Following Mood Induction in Chronic Pain

In preparation (*current or former mentee)

[1] J. Craggs, J. Redmon, B. Willis, C. McCrae. Differences in Sleep, Pain, and Depression Among Chronic Pain Populations: Implications for Patient Education.

[2] J. Craggs, H. Peng, K. Boland*, C.M. Cirstea. Thalamus in chronic low back pain: vertex-based morphometry and connectivity-based thalamic white matter studies.

[3] J. Craggs, H. Peng, A. Smith, K. Boland*, D. Vilceanu, C.M. Cirstea. Thalamus in chronic low back pain: Insights from vertex-based morphometry and connectivity-based diffusion tensor tractography.

[4] J. Craggs, H. Peng, A. Smith, K. Boland*. Vertex-based thalamus morphometry and tract-based spatial statistics of the white matter show differences between patients with chronic low back pain and fibromyalgia.

[5] Curtis, A. F., Nair, N., Craggs, J. G., McGovney*, K., & McCrae, C. S. (in prep). Frontal cortical gray matter volume moderates associations between pain and cognitive performance in adults with chronic widespread pain and insomnia.

Abstracts

[1] J. Redmon, B. Willis, C. McCrae, and J. Craggs. Differences in Sleep, Pain, and Depression Among Chronic Pain Populations: Implications for Patient Education. Combined Sections Meeting (CSM), 2021.

- [2] N. Nair, A. F. Curtis, R. L. Stephens, B. Hayse, P. Studdard, J. G. Craggs, and C. S. McCrae. Cortical thickness moderates association between sleep architecture and pain in adults with fibromyalgia. Annual SLEEP meeting of the American Academy of Sleep Medicine and the Sleep Research Society (virtual meeting due to COVID-19)., Poster Presentation, 2021.
- [3] A. F. Curtis, N. Nair, J. Craggs, K. McGovney, and C. S. McCrae. Sleep and gray matter volume: The role of physiological arousal. Annual SLEEP meeting of the American Academy of Sleep Medicine and the Sleep Research Society. (Virtual Meeting due to COVID-19)., Oral Presentation, 2021.
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