

**Department of Psychiatry & Behavioral Sciences**  
**Behavioral Medicine Research Laboratory & Clinic**  
Johns Hopkins University School of Medicine  
5510 Nathan Shock Drive, Suite 100  
Baltimore, MD 21224



October 13, 2023

Dear USASP Board of Directors Selection Team:

I am interested in joining the USASP Board of Directors as Secretary. I am a clinical psychologist and my laboratory has a strong history of NIH-supported work in the neurophysiological assessment of pain responses, and its interaction with psychosocial processes. Sustaining a strong multidisciplinary membership within the society is important to me. I also have an NIH K24 to mentor future leaders in the pain field and know that the USASP is vital for their development. Having joined the society's predecessor, APS, as a graduate student, I am attuned to the impact societies have in facilitating the careers of young investigators. I attended every meeting from 2002-2019 and was involved in a number of committees and was a board member the last several years prior to its dissolving. I very much enjoyed my time on the board. I would relish the opportunity to join the USASP board as secretary, and actively collaborate with energetic and invested leaders to guide the society, brainstorm and implement strategies to continually innovate and improve the work of the society, and be in a position of record and meeting minutes keeping, along with the society's administration. I feel well suited to represent the needs of USASP members and interests of those in the pain community that benefit from the society. I would value the opportunity to join the BOD in this role and, if elected, commit to meeting attendance and enthusiastic participation. Thank you for your consideration.

Sincerely,

A handwritten signature in cursive script that reads "Claudia M. Campbell".

Claudia M. Campbell, Ph.D.  
Professor  
Email: [ccampb41@jhmi.edu](mailto:ccampb41@jhmi.edu)  
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## CURRICULUM VITAE

The Johns Hopkins University School of Medicine

Claudia M. Campbell, Ph.D.

### DEMOGRAPHIC AND PERSONAL INFORMATION

#### Current Appointments

2010 – 2014 Assistant Professor, Department of Psychiatry & Behavioral Sciences, Johns Hopkins  
2014 – current Associate Professor, Department of Psychiatry & Behavioral Sciences, Johns Hopkins  
2016 – current Associate Professor, Department of Neurosurgery, Johns Hopkins  
2021 – current Professor, Department of Psychiatry & Behavioral Sciences, Johns Hopkins  
2021 – current Professor, Department of Neurosurgery, Johns Hopkins

#### Personal Data

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#### Education and Training

##### Undergraduate

2001 B.S., Psychology, University of Florida, Gainesville, FL

##### Doctoral/graduate

2004 M.S., Clinical Psychology, University of Florida, Gainesville, FL  
2007 Ph.D., Clinical Psychology, University of Florida, Gainesville, FL

##### Postdoctoral

2006-2007 Intern, Behavioral Medicine, University of California, San Diego/VA San Diego Healthcare System, San Diego, CA  
2007-2008 Postdoctoral Fellow, Johns Hopkins School of Nursing, Baltimore, MD  
2008-2010 Postdoctoral Fellow, Johns Hopkins School of Medicine, Baltimore, MD

#### Professional Experience

2002 Crisis Interventionist, Peaceful Paths, Gainesville, FL  
2006-2007 Individual/Group Therapist, VA San Diego, CA  
2006-2007 Individual/Group Therapist, University of California, San Diego, CA  
2010-2014 Assistant Professor, Johns Hopkins School of Medicine, Baltimore, MD  
2014-2021 Associate Professor, Department of Psychiatry & Behavioral Sciences, Johns Hopkins  
2016-2021 Associate Professor, Department of Neurosurgery, Johns Hopkins  
2021-current Professor, Department of Psychiatry & Behavioral Sciences, Johns Hopkins  
2021-current Professor, Department of Neurosurgery, Johns Hopkins

### PUBLICATIONS:

#### Original Research

1. Fillingim RB, Ness TJ, Glover TL, **Campbell CM**, Price DD, and Staud R. Experimental pain models reveal no sex differences in pentazocine analgesia in humans. *Anesthesiology*. 2004;100(5):1263-1270. Data collection and manuscript writing/review.
2. Fillingim RB, Kaplan L, Staud R, Ness TJ, Glover TL, **Campbell CM**, Mogil JS, Wallace MR. The A118G Single Nucleotide Polymorphism of the Mu-Opioid Receptor Gene (OPRM1) is associated with pressure pain sensitivity in humans. *J Pain*. 2005;6(3):159-167. Data collection and manuscript writing/review.
3. Edwards RR, **Campbell CM**, Fillingim RB. Catastrophizing and experimental pain sensitivity: Only in-vivo reports of catastrophic cognitions correlate with pain responses. *J Pain*. 2005;6(5):338-9. Data collection and manuscript writing/review.

4. Hastie BA, Riley JL, Robinson ME, Glover TL, **Campbell CM**, Staud R, Fillingim RB. Cluster analysis of multiple experimental pain modalities. *Pain*.2005;116(3):227-37. Data collection and manuscript writing/review.
5. Fillingim RB, Hastie BA, Ness TJ, Glover TL, **Campbell CM**, Staud R. Sex-related psychological predictors of baseline pain perception and analgesic responses to pentazocine. *Biol Psychol*. 2005;69(1):97-112. Data collection and manuscript writing/review.
6. Fillingim RB, Ness TJ, Glover TL, **Campbell CM**, Hastie BA, Price DD, Staud R. Morphine responses and experimental pain: Sex differences in side effects and cardiovascular responses but not analgesia. *J Pain*. 2005;6(2):116-24. Data collection and manuscript writing/review.
7. **Campbell CM**, Edwards RR, Fillingim RB. Ethnic differences in responses to multiple experimental pain stimuli. *Pain*. 2005;113:20-26.
8. Rahim-Williams FB, Riley JL, Herrera D, **Campbell CM**, Hastie BA, Fillingim RB. Ethnic identity predicts experimental pain sensitivity in African Americans and Hispanics. *Pain*. 2007;129:177-184. Data collection and manuscript writing/review. Data collection and manuscript writing/review.
9. **Campbell CM**, France CR, Robinson ME, Logan HL, Geffken GR, Fillingim RB. Ethnic Differences in Diffuse Noxious Inhibitory Controls. *J Pain*. 2008;9(8):759-766.
10. **Campbell CM**, France CR, Robinson ME, Logan HL, Geffken GR, Fillingim RB. Ethnic differences in the nociceptive flexion reflex (NFR). *Pain*. 2008;134:91-96.
11. **Campbell CM**, Edwards RR, Carmona C, Uhart M, Wand G, Carteret A, Kim YK, Frost J, Campbell JN. Polymorphisms in the GTP cyclohydrolase gene (GCH1) are associated with ratings of capsaicin pain. *Pain*. 2009;141(1-2):114-118.
12. Riley, J, Glover, T, Staud, R. **Campbell, CM**, Fillingim, RF. Cognitive-Affective and Somatic Side Effects of Morphine and Pentazocine: Side Effect Profiles in Healthy Adults. *Pain Medicine*. 2009;11(2):195-206. Data collection and manuscript writing/review.
13. **Campbell CM**, Witmer K., Simango M., Carteret A., Loggia M., Campbell J, Haythornthwaite JA, Edwards RR. Catastrophizing delays the analgesic effect of distraction. *Pain*. 2010;149(2): 202-207.
14. **Campbell CM**, Quartana PJ, Buenaver LF, Haythornthwaite JA, Edwards RR. Changes in situation-specific pain catastrophizing precede changes in pain report during capsaicin pain: A cross-lagged panel analysis among healthy, pain-free participants. *J Pain*. 2010;11(9):876-84.
15. **Campbell CM**, Kronfli T, Buenaver LF, Smith MT, Berna C, Haythornthwaite JA, Edwards RR. Situational versus dispositional measurement of catastrophizing: associations with pain responses in multiple samples. *J Pain*. 2010; 11(5), 443-453.
16. Edwards RR, Giles J, Bingham CO, **Campbell CM**, Haythornthwaite JA, Bathon J. Moderators of the Negative Effects of Catastrophizing in RA. *Pain Medicine*. 2010;11(4):591-9. Data collection and manuscript writing/review.
17. Mogil JS, Sorge RE, Lacroix-Fralish ML, Smith SB, Fortin A, Sotocrinal SG, Ritchie J, Austin JS, Schorscher-Petcu A, Melmed K, Czerminski J, Bittong RA, Mokris JB, Neubert JK, **Campbell CM**, Edwards RR, Campbell JN, Crawley JN, Lariviere WR, Wallace MR, Sternberg WF, Balaban CD, Belfer I, Fillingim RB. Pain sensitivity and vasopressin analgesia are mediated by a gene-sex-environment interaction. *Nat Neurosci*. 2011; 14(12):1569-73. Data collection and manuscript writing/review.
18. **Campbell CM**, Bounds SC, Simango M, Witmer K, Carteret A, Campbell JN, Haythornthwaite JA, Smith MT, Edwards RR. Self-reported sleep duration associated with distraction analgesia, hyperemia, and secondary hyperalgesia in the heat-capsaicin nociceptive model. *Eur J Pain*. 2011;15(6):561-7.
19. Merry B, **Campbell CM\***, Buenaver LF, McGuire L, Haythornthwaite JA, Doleys DM, Edwards RR. Ethnic group differences in the outcomes of multidisciplinary pain treatment. *J MuscSkel Pain*. 2011;19(1):24-30. \*Corresponding author. Data analyses, interpretation and manuscript writing/review.
20. Goodin BR, Fillingim RB, Machala S, McGuire L, Buenaver, LF, **Campbell CM**, Smith MT. Subjective sleep quality and ethnicity are interactively related to standard and situation-specific measures of pain catastrophizing. *Pain Med*. 2011;12(6):913-22. Data interpretation and manuscript writing/review.
21. **Campbell CM**, Edwards RR. Ethnic differences in pain and pain management. *Future Medicine*, 2012; 2(3):219-30.
22. Hastie BA, Riley JL, Kaplan L, Herrera DG, **Campbell CM**, Virtusio K, Mogil JS, Wallace MR, Fillingim RB. Ethnicity interacts with the OPRM1 gene in experimental pain sensitivity. *Pain*. 2012;153(8):1610-19. Data collection and manuscript writing/review.
23. **Campbell CM**, Stouch B, Brady K, Schmidt B, Campbell JN. Topical clonidine gel (ARC-4558) reduces pain caused by diabetic neuropathy: Results of a multicenter, placebo-controlled clinical trial. *Pain*. 2012;153(9):1815-23. \*system innovation\*
24. **Campbell CM**, McCauley L, Bounds SC, Mathur VA, Conn L, Simango M, Edwards RR, Fontaine K.

- Changes in pain catastrophizing predict later changes in fibromyalgia clinical and experimental pain report: Cross-lagged panel analyses of dispositional and situational catastrophizing. *Arthritis Research and Therapy*. *Arthritis Res Ther*. 2012;14(5):R231.
25. Edwards RR, Mensing G, Cahalan C, Greenbaum S, Narang S, Belfer I, Schreiber KL, **Campbell CM**, Wasan AD, Jamison RN. Alteration in Pain Modulation in Women with Persistent Post-Lumpectomy Pain: Influence of Catastrophizing. *J Pain Symptom Manage*. 2013;46(1):30-42. Data interpretation and manuscript writing/review.
  26. Finan PH, Buenaver LF, Bounds SC, Hussain S, Park RJ, Haque UJ, **Campbell CM**, Haythornthwaite JA, Edwards RR, Smith MT. Discordance between pain and radiographic severity in knee osteoarthritis: findings from quantitative sensory testing of central sensitization. *Arthritis Rheum*.2013;65(2):363-372. Data collection and interpretation, manuscript writing/review.
  27. **Campbell CM**, Bounds SC, Kuwabara H, Edwards RR, Campbell JN, Haythornthwaite JA, Smith MT. Individual variation in sleep quality and duration is related to cerebral mu opioid receptor binding potential during tonic laboratory pain in healthy subjects. *Pain Medicine*.2013;14(12):1882-92.
  28. Belfer I, Segall SK, Lariviere WR, Smith SB, Dai F, Slade GD, Rashid NU, Mogil JS, **Campbell CM**, Edwards RR, Liu Q, Bair E, Maixner W, Diatchenko L. Pain modality- and sex-specific effects of COMT genetic functional variants. *Pain*. 2013;154(8):1368-76. Data collection and interpretation, manuscript writing/review.
  29. Tompkins DA, Smith MT, Mintzer MZ, **Campbell CM**, Strain EC. A double blind, within subject comparison of spontaneous opioid withdrawal from buprenorphine versus morphine. *J Pharmacol Exp Ther*. 2014;348(2):217-26. Data interpretation and manuscript writing/review.
  30. Schreiber KL, **Campbell C**, Martel MO, Greenbaum S, Wasan AD, Borsook D, Jamison RN, Edwards RR. Distraction analgesia in chronic pain patients: the impact of catastrophizing. *Anesthesiology*. 2014 Dec;121(6):1292-301. Data interpretation and manuscript writing/review.
  31. **Campbell CM**, Buenaver LF, Finan P, Bounds SC, Redding M, McCauley L, Robinson M, Edwards RR, Smith MT. Sleep, pain catastrophizing and central sensitization in knee osteoarthritis patients with and without insomnia. *Arthritis Care & Research*. 2015;67(10):1387-96.
  32. **Campbell CM**, Buenaver LF, Raja SN, Kiley KB, Swedberg L, Wacnik PW, Cohen SP, Erdek MA, Williams KA, Christo PJ. Dynamic pain phenotypes are associated with spinal cord stimulation-induced reduction in pain: A repeated measures observational pilot study. *Pain Medicine*. 2015;16(7):1349-60.
  33. Moscou-Jackson G, Finan PH, **Campbell CM**, Smyth JM, Haythornthwaite JA. The effect of sleep continuity on pain in adults with sickle cell disease. *Journal of Pain*. 2015;16(6):587-93. Data interpretation and manuscript writing/review.
  34. Pan B, Byrnes K, Schwartz M, Hansen CD, **Campbell CM**, Krupiczkoj M, Caterina MJ, Polydefkis M. Peripheral neuropathic changes in pachyonychia congenita. *Pain*. 2016;157(12):2843-2853. Data interpretation and manuscript writing/review.
  35. Mathur VA, Kiley KB, Carroll CP, Edwards RR, Lanzkron S, Haythornthwaite JA, **Campbell CM**. Disease-related, nondisease-related, and situational catastrophizing in sickle cell disease and its relationship with pain. *J Pain*. 2016;17(11):1227-1236.
  36. **Campbell CM**, Carrol CP, Kiley KB, Han D, Haywood C, Lanzkron S, Swedberg L, Edwards RR, Page GG, Haythornthwaite JA. Quantitative sensory testing and pain-evoked cytokine reactivity: Comparison of patients with sickle cell disease to healthy matched controls. *Pain*. 2016;157(4):949-56.
  37. **Campbell CM**, Moscou-Jackson G, Carroll CP, Kiley K, Haywood C Jr, Lanzkron S, Hand M, Edwards RR, Haythornthwaite JA. An Evaluation of Central Sensitization in Patients with Sickle Cell Disease. *J Pain*. 2016;17(5):617-27.
  38. Mathur VA, Kiley KB, Haywood C, Bediako SM, Lanzkron S, Carroll CP, Buenaver LF, Pejsa M, Edwards RR, Haythornthwaite JA, **Campbell CM**. Multiple-levels of suffering: Discrimination in health care settings is associated with enhanced laboratory pain sensitivity in sickle cell disease. *Clinical Journal of Pain*. 2016; 32(12):1076-1085.
  39. **Campbell CM**, Diamond E, Schmidt WK, Kelly M, Allen R, Houghton W, Brady KL, Campbell JN. A randomized, double blind, placebo controlled trial of injected capsaicin for pain in Morton's neuroma. *Pain*. 2016;157(6):1297-304.
  40. Carroll CP, Lanzkron S, Haywood C, Kiley K, Pejsa M, Moscou-Jackson G, Haythornthwaite JA, **Campbell CM**. Chronic opioid therapy, clinical pain, central sensitization, function and healthcare utilization in patients with sickle cell disease. *American Journal of Preventive Medicine*, 2016;51(1):69-77.
  41. Burton EE, Suen SY, Walker JL, Bruehl S, Peterlin L, Tompkins DA, Buenaver LF, Edwards RR, **Campbell CM**. Ethnic Differences in the Effects of Naloxone on Sustained Evoked Pain: A Preliminary Study.

- Diversity and Equality in Health and Care. 2017;14(5):236-242.
42. Chien JH, Korzeniewska A, Colloca L, **Campbell CM**, Dougherty P, Lenz L. Human Thalamic Somatosensory Nucleus (Ventral Caudal, Ve) as a Locus for Stimulation by INPUTS from Tactile, Noxious and Thermal Sensors on an Active Prosthesis. *Sensors*. 2017;346:81-93. Data interpretation and manuscript writing/review.
  43. Chien JH, Colloca L, Korzeniewska A, Cheng JJ, **Campbell CM**, Hillis AE, Lenz FA. Oscillatory EEG activity induced by conditioning stimuli during fear conditioning reflects Salience and Valence of these stimuli more than Expectancy. *Neuroscience*. 2017;346:81-93. Data interpretation and manuscript writing/review.
  44. Speed TJ, Mathur VA, Hand M, Christensen B, Sponseller PD, Williams KA, **Campbell CM**. Characterization of pain, disability, and psychological burden in Marfan syndrome. *Am J Med Genet A*. 2017;173(2):315-323.
  45. Pressman A, Peterlin L, Tompkins A, Salas R, Buenaver L, Haythornthwaite JA, **Campbell CM**. Pain Catastrophizing May Moderate the Association between Pain and Secondary Hyperalgesia. *Journal of Applied Biobehavioral Research*. 2017;24(22):e12096.
  46. Speed TJ, Hand M, Sponseller PD, Williams KA, **Campbell CM**. Survey of Pain Therapies in Marfan Syndrome. *International Archives of Nursing and Health Care*. 2017; 3(3):1-9.
  47. Finan PH, Carroll CP, Moscou-Jackson G, Martel MO, **Campbell CM**, Pressman A, Smyth JM, Tremblay JM, Lanzkron SM, Haythornthwaite JA. Daily opioid use fluctuates as a function of pain, catastrophizing, and affect in patients with sickle cell disease: an electronic daily diary analyses. *J Pain*. 2018;19(1):46-56. Data interpretation and manuscript writing/review.
  48. Walker Taylor JL, **Campbell CM**, Thorpe Jr. RJ, Whitfield KE, Nkimbeng M, & Szanton SL. Pain, racial discrimination, and depressive symptoms among African American women. *Pain Management Nursing*. 2018;19(1):79-87. Data interpretation and manuscript writing/review.
  49. Hanna MN, Speed TJ, Shechter R, Grant MC, Sheinberg R, Goldberg E, **Campbell CM**, Theodore N, Koch CG, Williams K. An Innovative Perioperative Pain Program for Chronic Opioid Users: An Academic Medical Center's Response to the Opioid Crisis. *Am J Med Qual*. 2018;34(1):5-13. Data interpretation and manuscript writing/review.
  50. Lazaridou A, Martel MO, Cahalan CM, Cornelius MC, Franceschelli O, **Campbell CM**, Haythornthwaite JA, Smith M, Riley J, Edwards RR. The impact of anxiety and catastrophizing on interleukin-6 responses to acute painful stress. *J Pain Res*. 2018;28(11):637-647. Site oversight, data interpretation and manuscript writing/review.
  51. Lerman SE, **Campbell CM**, Buenaver LF, Medak M, Phillips J, Polley M, Smith MT, Haythornthwaite JA. Exploring the Role of Negative Cognitions in the Relationship Between Ethnicity, Sleep, and Pain in Women With Temporomandibular Joint Disorder. *J Pain*. 2018;19(11):1342-1351. Data interpretation and manuscript writing/review.
  52. Abrecht CR, Cornelius M, Wu A, Jamison RN, Janfaza D, Urman RD, **Campbell C**, Smith M, Haythornthwaite J, Edwards RR, Schreiber KL. Prediction of Pain and Opioid Utilization in the Perioperative Period in Patients Undergoing Primary Knee Arthroplasty: Psychophysical and Psychosocial Factors. *Pain Med*. 2019;20(1):161-171. Site oversight, data interpretation and manuscript writing/review.
  53. Nandi M, Schreiber KL, Martel MO, Cornelius M, **Campbell CM**, Haythornthwaite JA, Smith MT Jr, Wright J, Aglio LS, Strichartz G, Edwards RR. Sex differences in negative affect and postoperative pain in patients undergoing total knee arthroplasty. *Biol Sex Differ*. 2019;6;10(1):23. Site oversight, data interpretation and manuscript writing/review.
  54. Huhn AS, Tompkins DA, **Campbell CM**, Dunn KE. Individuals with Chronic Pain Who Misuse Prescription Opioids Report Sex-Based Differences in Pain and Opioid Withdrawal. *Pain Med*. 2019;20(10):1942-1947. Data interpretation and manuscript writing/review.
  55. Miller RE, Brown DS, Keith SW, Hegarty SE, Setty Y, **Campbell CM**, McCahan SM, Gayen-Betal S, Byck H, Stuart M. Quantitative sensory testing in children with sickle cell disease: additional insights and future possibilities. *Br J Haematol*. 2019;185(5):925-934. QST training and oversight, data interpretation and manuscript writing/review.
  56. Lazaridou A, Martel MO, Cornelius M, Franceschelli O, **Campbell C**, Smith M, Haythornthwaite JA, Wright JR, Edwards RR. The Association Between Daily Physical Activity and Pain Among Patients with Knee Osteoarthritis: The Moderating Role of Pain Catastrophizing. *Pain Med*. 2019;20(5):916-924. Site oversight, data interpretation and manuscript writing/review.
  57. Letzen JE, Lanzkron S, Bond K, Carroll CP, Haythornthwaite JA, Nance S, **Campbell CM**. Preliminary evidence that hydroxyurea is associated with attenuated peripheral sensitization in adults with sickle cell disease. *Pain Rep*. 2019;22;4(2):e724.

58. Letzen JE, Mun CJ, Kuwabara H, Burton EF, Boring BL, Walls T, Speed TJ, Wong DF, **Campbell CM**. Ethnic Disparities in Pain Processing Among Healthy Adults:  $\mu$ -Opioid Receptor Binding Potential as a Putative Mechanism. *Pain*. 2019;161(4):810-820.
59. Carriere JS, Lazaridou A, Martel MO, Cornelius M, **Campbell CM**, Smith M, Haythornthwaite JA, Edwards RR. The Moderating Role of Pain Catastrophizing on the Relationship Between Partner Support and Pain Intensity: A Daily Diary Study in Patients With Knee Osteoarthritis. *J Behav Med*. 2020;43(5):807-816. Site oversight, data interpretation and manuscript writing/review.
60. Emerson NM, Meeker TJ, Greenspan J, Saffer MI, **Campbell CM**, Korzeniewska A, Lenz FA. Missed Targets, Reaction Times and Arousal Are Related to Trait Anxiety and Attention to Pain During an Experimental Vigilance Task With a Painful Target. *J Neurophysiol*. 2020. Feb;123(2):462-472. Data interpretation and manuscript writing/review.
61. Bergeria, C. L., Dolan, S., Johnson, M. W., **Campbell, C.**, & Dunn, K. E. Evaluating the co-use of opioids and cannabis for pain among current users using hypothetical purchase tasks. *Journal of Psychopharmacology*. 2020;34(6):654-662. Data interpretation and manuscript writing/review.
62. Okusogu C, Wang Y, Akintola T, Haycock NR, Raghuraman N, Greenspan JD, Phillips J, Dorsey SG, **Campbell CM**, Colloca L. Placebo Hypoalgesia: Racial Differences. *Pain*. 2020;161(8):1872-1883. Data interpretation and manuscript writing/review.
63. Mun CJ, Letzen JE, Nance S, Smith MT, Khanuja HS, Sterling RS, Bicket MC, Haythornthwaite JA, Jamison RN, Edwards RR, **Campbell CM**. Sex Differences in Interleukin-6 Responses Over Time Following Laboratory Pain Testing Among Patients With Knee Osteoarthritis. *J Pain*. 2020;21(5-6):731-741.
64. Yeh CH, Caswell K, Pandiri S, Sair H, Lukkahatai N, **Campbell CM**, Stearns V, Van de Castle B, Perrin N, Smith TJ, Saligan LN. Dynamic Brain Activity Following Auricular Point Acupressure in Chemotherapy-Induced Neuropathy: A Pilot Longitudinal Functional Magnetic Resonance Imaging Study. *Glob Adv Health Med*. 2020;9:2164956120906092. Published 2020 Feb 13. doi:10.1177/2164956120906092. QST training, data analyses/interpretation and manuscript writing/review.
65. Fulton BA, Burton EF, Nance S, Letzen JE, **Campbell CM**. Experimenter- and Infrared Thermography-Derived Measures of Capsaicin-Induced Neurogenic Flare Among Non-Hispanic White and Black Adults. *Pain Med*. 2020;21(10):2262-2270.
66. Smith MT, Mun CJ, Remeniuk B, Finan PH, **Campbell CM**, Buenaver LF, Robinson M, Fulton B, Tompkins DA, Tremblay JM, Strain EC, Irwin MR. Experimental sleep disruption attenuates morphine analgesia: findings from a randomized trial and implications for the opioid abuse epidemic. *Sci Rep*. 2020;10(1):20121. QST training, oversight, data interpretation and manuscript writing/review.
67. Mun CJ, Davis MC, **Campbell CM**, Finan PH, Tennen H. Linking Nonrestorative Sleep and Activity Interference Through Pain Catastrophizing and Pain Severity: An Intraday Process Model Among Individuals With Fibromyalgia. *J Pain*. 2020;21(5-6):546-556. Data analyses/interpretation and manuscript writing/review.
68. Chin EM, Lenz C, Ye X, **Campbell CM**, Stashinko E, Jantzie L, Gerner G, Hoon AH, Robinson S. The Spectrum of Chronic Pain in Adults with Cerebral Palsy: Relationships to Clinical Variables. *Frontiers in Pain Research*. 2020;1(6); DOI: 10.3389/fpain.2020.553026. QST training, oversight, data interpretation and manuscript writing/review.
69. Letzen JE, Dildine TC, Mun CJ, Colloca L, Bruehl S, **Campbell CM**. Ethnic Differences in Experimental Pain Responses Following a Paired Verbal Suggestion With Saline Infusion: A Quasiexperimental Study. *Ann Behav Med*. 2021;55(1):55-64.
70. Dunn KE, Bergeria CL, Huhn AS, Speed TJ, Mun CJ, Vandrey R, **Campbell CM**. Within-subject, double-blinded, randomized, and placebo-controlled evaluation of the combined effects of the cannabinoid dronabinol and the opioid hydromorphone in a human laboratory pain model. *Neuropsychopharmacology*. 2021;46(8):1451-1259.
71. Mun CJ, **Campbell CM**, McGill LS, Aaron RV. The Early Impact of COVID-19 on Chronic Pain: A Cross-Sectional Investigation of a Large Online Sample of Individuals with Chronic Pain in the United States, April to May, 2020. *Pain Med*. 2021 Feb 23;22(2):470-480.
72. Speed TJ, Mun CJ, Smith MT, Khanuja HS, Sterling RS, Letzen JE, Haythornthwaite JA, Edwards RR, **Campbell CM**. Temporal association of pain catastrophizing and pain severity across the perioperative period: a cross-lagged panel analyses following total knee arthroplasty. *Pain Med*. 2021;22(8):1727-1734.
73. Aaron RV, Mun CJ, McGill LS, Finan PH, **Campbell CM**. The Longitudinal Relationship Between Emotion Regulation and Pain-Related Outcomes: Results From a Large, Online Prospective Study. *J Pain*. 2021. In press.

74. Mun CJ, **Campbell CM**, McGill LS, Wegener ST, Aaron RV. Trajectories and Individual Differences in Pain, Emotional Distress, and Prescription Opioid Misuse During the COVID-19 Pandemic: A One-Year Longitudinal Study. *J Pain*. 2022. In press.
75. Carriere JS, Martel MO, Loggia ML, **Campbell CM**, Smith MT, Haythornthwaite JA, Edwards RR. The influence of expectancies on pain and function over time following total knee arthroplasty. *Pain Med*. 2022. In press.
76. Wang Y, Chan E, Dorsey SG, **Campbell CM**, Colloca L. Who are the placebo responders? A cross-sectional cohort study for psychological determinants. *Pain*. 2022. In press.
77. Edwards RR, **Campbell C**, Schreiber KL, Meints S, Lazaridou A, Martel MO, Cornelius M, Xu X, Jamison RN, Katz JN, Carriere J, Khanuja HP, Sterling RS, Smith MT, Haythornthwaite JA. Multimodal prediction of pain and functional outcomes 6 months following total knee replacement: a prospective cohort study. *BMC Musculoskelet Disord*. 2022. In press.
78. Lerman SF, Mun CJ, Hunt CA, Kunatharaju S, Buenaver LF, Finan PH, **Campbell CM**, Phillips J, Fernandez-Mendoza J, Haythornthwaite JA, Smith MT. Insomnia with objective short sleep duration in women with temporomandibular joint disorder: quantitative sensory testing, inflammation and clinical pain profiles. *Sleep Med*. 2022. In press.
79. Hunt CA, Mun CJ, Owens MA, Lerman SF, Kunatharaju S, Tennen HA, Buenaver LF, **Campbell CM**, Haythornthwaite JA, Smith MT, Finan PH. Sleep, Positive Affect, and Circulating Interleukin-6 in Women With Temporomandibular Joint Disorder. *Psychosom Med*. 2022. In press.
80. Letzen JE, Robinson ML, Saletin JM, Sheinberg RB, Smith MT, **Campbell CM**. Racial disparities in sleep-related cardiac function in young, healthy adults: implications for cardiovascular-related health. *Sleep*. 2021;44(11).
81. Letzen JE, Hunt CA, Kuwabara H, McGill LS, Reid MJ, Hamilton KR, Buenaver LF, Burton EF, Sheinberg R, Wong DF, Smith MT, **Campbell CM**. Preliminary evidence for the sequentially mediated effect of racism-related stress on pain sensitivity through sleep disturbance and corticolimbic opioid receptor function. *Journal of Pain*. 2022. In press.
82. Aaron RV, McGill LS, Finan PH, Wegener ST, **Campbell CM**, Mun CJ. Determining Profiles of Pain-Specific and General Emotion Regulation Skills and Their Relation to 12-Month Outcomes Among People With Chronic Pain. *J Pain*. 2022. In press.
83. Pester, B. D., Wilson, J. M., Yoon, J., Lazaridou, A., Schreiber, K. L., Cornelius, M., **Campbell, C. M.**, Smith, M. T., Haythornthwaite, J. A., Edwards, R. R., & Meints, S. M. Brief mindfulness-based cognitive behavioral therapy is associated with faster recovery in patients undergoing total knee arthroplasty: A pilot clinical trial. *Pain Medicine*. 2022. In press.
83. McGill, L. S., Hamilton, K. R., Letzen, J. E., Finan, P. H., Lanzkron, S. M., Smith, M. T., Haythornthwaite, J. A., & **Campbell, C. M.** Depressive and insomnia symptoms sequentially mediate the association between racism-based discrimination in healthcare settings and clinical pain among adults with sickle cell disease. *J Pain*. 2022 In press.
84. Reid MJ, Dave A, Rojo-Wissar DM, Mun CJ, Lerman SF, Buenaver L, Tennen H, Haythornthwaite J, **Campbell CM**, Finan P, Smith MT. Nocturnal Delta Power is Associated With Lower Next-Day Pain But Not Pain Catastrophizing: Results From a Cohort of Female Participants With Temporomandibular Joint Pain. *J Pain*. 2023 Mar;24(3):413-425.
85. Chaudhry YP, Mekkawy KL, Wenzel A, **Campbell C**, Sterling RS, Khanuja HS. Comparing Pain and Pain Coping Mechanisms in Patients Undergoing Total Joint Arthroplasty as Part of a Mission Trip to Those in the United States. *J Arthroplasty*. 2023 Apr 11:S0883-5403(23)00346-7. doi: 10.1016/j.arth.2023.04.001. Epub ahead of print. PMID: 37054927.
86. DuPont. C.M., Olmstead, R., Reid, M.J., Hamilton, K.R., **Campbell, C.M.**, Finan, P.H., Sadeghi, N., Castillo, D., Irwin, M. R., Smith, M.T., (in press). A Randomized, Placebo-Controlled, Double-Blinded Mechanistic Clinical Trial Using Endotoxin to Evaluate the Relationship Between Insomnia, Inflammation, and Affective Disturbance on Pain in Older Adults: A Protocol for the Sleep and Healthy Aging Research for Pain (SHARE-P) Study. *Brain, Behavior, Immunity - Health*.
87. **Campbell CM**, Mun CJ, Hamilton KR, Bergeria CL, Huhn AS, Speed TJ, Vandrey R, Dunn KE. Within-subject, double-blind, randomized, placebo-controlled evaluation of combining the cannabinoid dronabinol and the opioid hydromorphone in adults with chronic pain. *Neuropsychopharmacology*. 2023 May 18. DOI: 10.1038/s41386-023-01597-1. Online ahead of print. PMID: 37202479.
88. Hamilton, K.R., Hughes, A.J., **Campbell, C.M.**, Owens, M.A., Pester, B.D., Meints, S.M., Taylor, J.L., Edwards, R.R., Haythornthwaite, J.A., Smith, M.T. (2023). Perioperative insomnia trajectories and functional outcomes after total knee arthroplasty. *Pain*. In press.

89. Owens MA, Mun CJ, Hamilton KR, Hughes A, Campbell CM, Edwards RR, Smith MT. Presurgical sleep and pain behaviors predict insomnia symptoms and pain after total knee arthroplasty: A 12-Month Longitudinal, Observational Study. *Pain Medicine*. In press.

#### Review Articles

1. **Campbell CM**, Edwards RR. Mind-Body Interactions in Pain: The Neurophysiology of Anxious and Catastrophic Pain-Related Thoughts. *Translational Research*. 2009;153(3):97-101.
2. Quartana PJ, **Campbell CM**, Edwards RR. Pain catastrophizing: A critical review. *Expert Review of Neurotherapeutics*. 2009;9(5):745-58.
3. **Campbell CM**, Edwards RR, Jamison RN, Wiech K. Neurobiological Underpinnings of Coping with Pain. *Directions in Psychological Science*. 2009;18(4):237-241.
4. Paller CJ, **Campbell CM**, Edwards RR, Dobs AS. Sex-based differences in pain perception and treatment. *Pain Medicine*. 2009;10(2):289-99. Literature search, consolidate information and manuscript writing/review.
5. Tompkins DA, **Campbell CM**. Opioid Induced Hyperalgesia: Clinically Relevant or Extraneous Research Phenomenon? *Curr Pain Headache Rep*. 2011;15(2):129-36.
6. **Campbell CM**, Edwards RR. Ethnic differences in pain and pain management. *Future Medicine*. 2012; 2(3):219-30.
7. **Campbell CM**, Jamison RN, Edwards RR. Psychological Screening/Phenotyping as Predictors for Spinal Cord Stimulation. *Current Pain and Headache Reports*. 2013;17(1):307-315.
8. **Campbell CM**, Jamison RN, Edwards RR. Psychological Screening/Phenotyping as Predictors for Spinal Cord Stimulation. *Current Pain and Headache Reports*. *Curr Pain Headache Rep*. 2013;17(1):307-315.
9. **Campbell CM**, Gilron I, Doshi T, Raja S. Designing and conducting proof-of-concept chronic pain analgesic clinical trials. 2019;4(3):e697.
10. Letzen JE, Seminowicz DA, **Campbell CM**, Finan PH. Exploring the potential role of mesocorticolimbic circuitry in motivation for and adherence to chronic pain self-management interventions. *Neurosci Biobehav Rev*. 2019;98:10-17.
11. Da Silva JT, Letzen JE, Haythornthwaite JA, Finan PH, **Campbell CM**, Seminowicz DA. Do chronic pain and comorbidities affect brain function in sickle cell patients? A systematic review of neuroimaging and treatment approaches. *Pain*. 2019;160(9):1933-1945.
12. Mun CJ, Letzen JE, Peters EN, **Campbell CM**, Vandrey R, Gajewski-Nemes J, DiRenzo D, Caufield-Noll C, Finan PH. Cannabinoid Effects on Responses to Quantitative Sensory Testing Among Individuals With and Without Clinical Pain: A Systematic Review. *Pain*. 2020;161(2):244-260.
13. Doshi TL, Nixdorf DR, Campbell CM, Raja SN. Biomarkers in Temporomandibular Disorder and Rigeminal Neuralgia: A Conceptual Framework for Understanding Chronic Pain. *Can J Pain*. 2020;4(1):1-18.
14. Morais CA, Aroke EN, Letzen JE, **Campbell CM**, Hood AM, Janevic MR, Mathur VA, Merriwether EN, Goodin BR, Booker SQ, Campbell LC. Confronting Racism in Pain Research: A Call to Action. *J Pain*. 2022; 23(6):878-892.
15. Hood AM, Booker SQ, Morais CA, Goodin BR, Letzen JE, Campbell LC, Merriwether EN, Aroke EN, **Campbell CM**, Mathur VA, Janevic MR. Confronting Racism in All Forms of Pain Research: A Shared Commitment for Engagement, Diversity, and Dissemination. *J Pain*. 2022; 23(6):913-928.
16. Letzen JE, Mathur VA, Janevic MR, Burton MD, Hood AM, Morais CA, Booker SQ, **Campbell CM**, Aroke EN, Goodin BR, Campbell LC, Merriwether EN. Confronting Racism in All Forms of Pain Research: Reframing Study Designs. *J Pain*. 2022; 23(6):893-912.
17. Stanaway FF, **Campbell CM**. The complexity of disparities in pain. *Pain*. 2022 Sep 1;163(9):1651-1652.
18. Hood AM, Morais CA, Aroke EN, Booker SQ, Campbell LC, **Campbell CM**, Goodin BR, Janevic MR, Kapos FP, Mathur VA, Merriwether EN, Letzen JE. Antiracism CoalITION in Pain Research (ACTION-PR): Guiding Principles for Equity in Reporting. *J Pain*. 2023 Jan;24(1):19-21.

#### Book Chapters

1. Hastie BA, Riley JL, Glover T, **Campbell CM**, Staud R, Fillingim RB. Opioid Side-Effect Profiles: Associations with Analgesic Response and Physiological Factors. *Proceedings of the 11th World Congress on Pain*, HertaFlor, EijaKalso and Jonathan O Dostrovsky (Editors), IASP Press, Seattle, 2006; 469-479.
2. **Campbell CM**, Edwards RR. Quantitative Sensory Testing and Chronic Pain: recent pathophysiologic conceptualizations. *Sleep Medicine for Dentists: A Practical Review*, Gilles J. Lavigne, Peter A. Cistulli, Michael T. Smith (Editors), Quintessence Publishing Co, Inc, Hanover Park, 2009; 145-155.
3. Buenaver LF, **Campbell CM**, Haythornthwaite JA. Cognitive-Behavioral Therapy for Chronic Pain. *Bonica's Management of Pain*. Fishman SM, Ballantyne JC, Rathmell JP, (Editors). Philadelphia: Wolters Kluwer. 2010;1220-30.



4. **Campbell CM**, Buenaver LF. Psychological and Psychosocial evaluation and behavioral approaches to pain management. *Pocket Pain Medicine*, Richard D. Urman, Nalini Vadivelu (Editors), Lippincott Williams and Wilkins. 2011; 11:1-7.
5. **Letzen JE**, Edwards RR, **Campbell CM**. Pathophysiologic Conceptualizations of Chronic Pain. *Sleep Medicine for Dentists: A Practical Review*, Gilles J. Lavigne, Peter A. Cistulli, Michael T. Smith (Editors), Quintessence Publishing Co, Inc, Hanover Park, 2019; 175-178.

#### Other Publications: Guidelines

1. Drewes AM, Bouwense SAW, **Campbell CM**, Ceyhan GO, Delhaye M, Demir IE, Garg PK, van Goor H, Halloran C, Isaji S, Neoptolemos JP, Olesen SS, Palermo T, Pasricha PJ, Sheel A, Shimosegawa T, Szigethy E, Whitcomb DC, Yadav D. Guidelines for the understanding and management of pain in chronic pancreatitis. Working group for the International (IAP-APA-JPS-EPC) Consensus Guidelines for Chronic Pancreatitis. *Pancreatology*. 2017;17(5):720-731.
2. Drewes AM, **Campbell CM**, Ceyhan GO, Delhaye M, Garg PK, van Goor H, Laquente B, Morlion B, Olesen SS, Singh VK, Sjøgren P, Szigethy E, Windsor JA, Salvetti MG, Talukdar R. Pain in pancreatic ductal adenocarcinoma: A multidisciplinary, International guideline for optimized management. *Pancreatology*. 2018; 18(4):446-457.
3. Field JJ, Ballas SK, **Campbell CM**, Crosby LE, Dampier C, Darbari DS, McClish DK, Smith WR, Zempsky WT. Analgesic, Anesthetic, and Addiction Clinical Trial Translations, Innovations, Opportunities, and Networks-American Pain Society-American Academy of Pain Medicine Pain Taxonomy Diagnostic Criteria for Acute Sickle Cell Disease Pain. *J Pain*. 2019;20(7):746-759

#### Letters, correspondence

1. **Campbell CM**, Edwards RR. Re: Neurogenetics can help turn pain concepts more objective. *Pain Medicine*. 2009; 10(6):1149-1150.
2. Stanaway FF, **Campbell CM**. The complexity of disparities in pain: commentary on Zajacova et al.'s "Beyond Black vs White: race or ethnic disparities in chronic pain, including Hispanic, Asian, Native American, and multiracial groups". *Pain*. 2022;163(9):1651-1652.

#### Interviews

- <http://tribune.com.pk/story/897678/poor-sleep-increases-pain-in-patients-osteoarthritis/>
- [http://zeenews.india.com/news/health/health-news/poor-sleep-increases-pain-in-knee-osteoarthritis\\_1607332.html](http://zeenews.india.com/news/health/health-news/poor-sleep-increases-pain-in-knee-osteoarthritis_1607332.html)
- [http://www.eurekalert.org/pub\\_releases/2015-06/w-psn060215.php](http://www.eurekalert.org/pub_releases/2015-06/w-psn060215.php)
- <http://arthritisdigest.co.uk/poor-sleep-and-catastrophizing-makes-knee-osteoarthritis-worse/>
- <http://www.demanjo.com/news/health/1959517/poor-sleep--negative-attitude-amplify-pain-in-knee-osteoarthritis.html>
- <http://thenews.co.in/viewinternational-poorsleepincreasespaininpatientsosteoarthritis>
- <http://www.sify.com/news/poor-sleep-increases-pain-in-patients-osteoarthritis-news-others-pgeruuchfggcb.html>
- <http://www.usnews.net/index.php/sid/233481203>
- <http://www.yespunjab.com/lifestyle/health-and-fitness/item/69233-poor-sleep-increases-pain-in-patient-s-osteoarthritis>
- [http://www.everydayhealth.com/news/pain-sensitivity-spikes-oa-patients-with-sleep-problems/?xid=aol\\_earth\\_4\\_20150713\\_&aolcat=AJA](http://www.everydayhealth.com/news/pain-sensitivity-spikes-oa-patients-with-sleep-problems/?xid=aol_earth_4_20150713_&aolcat=AJA)
- <http://www.medpagetoday.com/Rheumatology/Arthritis/52082>
- <http://www.psychiatryadvisor.com/anxiety/pain-catastrophizing-not-just-psychological/article/412277/>
- <https://www.healio.com/rheumatology/fibromyalgia/news/print/healio-rheumatology/%7B96e0057b-c71a-4903-a382-092a891a8729%7D/interrupting-the-fibromyalgia-cycle>
- <https://www.arthritis.org/living-with-arthritis/pain-management/tips/negative-thinking-arthritis-pain.php>
- <https://www.thebeaconnewspapers.com/>

#### Other Media

##### Online

2009

**Campbell CM**. Gender and Pain: What the Research Says, Pain.com.

<http://empathyforpain.wordpress.com/2009/08/11/gender-and-pain-what-the-research-says/>

2008-2018

Faculty of 1000 Medicine - Contributing Reviewer

2013-2019 BodyinMind.Org; <http://www.bodyinmind.org/evaluating-psychological-treatments-for-pain/>  
2019-present HealthyWomen; Content Reviewer: <https://www.healthywomen.org/>  
2020 Arthritis Foundation Podcast focused on knee osteoarthritis

### Magazine

**Campbell CM**, Edwards RR, Smith MT. Too Much Sleep Can Exacerbate Pain. The Pain Practitioner.2009;19(1):14-15.

## FUNDING

### EXTRAMURAL Funding

Research Extramural Funding

Current

08/1/16-07/31/23 Sleep in Sickle Cell Disease, NCE  
R01 HL133327  
NIH/NHLBI  
Total direct cost: 2,739,439.0  
Multi-PI: J. Haythornthwaite and **Campbell** (corresponding), 5%

09/1/16-08/31/22 Enhancing Analgesic Effects, NCE  
R01 DA040644  
NIH/NIDA  
Total direct cost: 2,434,889.1  
Multi-PI: K. Dunn (corresponding) and **Campbell**, 5%

05/1/17-11/15/22 Maximizing Analgesic Effects in Chronic Pain Patients, NCE  
R01 DA042751  
NIH/NIDA  
Total direct cost: 1,499,192.4  
Multi-PI: K. Dunn and **Campbell** (corresponding), 5%

07/01/17-06/30/22 The Transition from Pain Related Attention to Vigilance  
R56 NS038493  
NIH/NINDS  
Total direct cost: \$1,750,000  
PI: Lenz; Co-I: **Campbell**, 1%

08/15/18-03/31/23 Experimental Model of Chronic Pain Risk: Insomnia, Inflammation, Central Sensitization, and Affective Disturbance  
R01 AG057750  
NIH/NIA  
Total direct cost: \$2,495,495  
PI: Smith; Co-I: **Campbell**, 5%

07/01/19-06/30/24 Cerebral oscillations of pain  
R01 NS112356  
NIH/NINDS  
Total direct cost: \$1,504,840  
PI: Seminowicz; Co-I: **Campbell**, 10%

07/01/19-06/30/22 The Effect of Chronic Pain on Delay Discounting in Methadone Patients, NCE  
R21 DA047520-01A1  
NIH/NIDA  
Subaward Total direct cost: \$26,298  
PI: Johnson; Co-I: **Campbell**, 0%

09/01/19-08/31/23 Effects of experimental sleep disruption and fragmentation on cerebral Mu-opioid receptor function, Mu-opioid receptor agonist analgesia, and abuse liability.

U01 HL150568  
NIH/NHLBI  
Total direct cost: \$745,584  
PI: Smith; Co-I: **Campbell**, 4%

9/1/20-8/31/24 A sequenced-strategy for improving outcomes in patients with knee osteoarthritis pain (SKOAP)  
UH3 AR077360  
NIH/NIAMS  
Total direct cost: \$8,800,401  
MPI: **Campbell** [corresponding], Cohen, Castillo; 25% effort

8/1/21-7/31/25 Central Sensitization and Sleep Disturbance as Predictors of Treatment Outcomes in Patients with Knee Osteoarthritis  
R01 AR079792  
NIH/NIAMS  
Total direct cost: \$262,256  
PI: Campbell, 15% effort

9/15/21-8/31/26 Measuring the Impact of Racism-Induced Medical Mistrust on Placebo Analgesia  
K23 NS124935  
NIH  
Total direct cost: \$924,950  
PI: Letzen; Co-I/Sponsor: **Campbell**, 0% effort

9/19/21-8/31/24 A sequenced-strategy for improving outcomes in patients with knee osteoarthritis pain (SKOAP); Diversity Supplement  
3UH3 AR077360-03S1  
NIH/NIAMS  
Total direct cost: \$95,000  
PI: Doshi; Co-I/Sponsor: **Campbell**, 0% effort

10/1/21-8/31/24 A sequenced-strategy for improving outcomes in patients with knee osteoarthritis pain (SKOAP), Participant Diversity Supplement  
UH3 AR077360-03S2  
NIH/NINDS  
Total direct cost: \$374,999  
PI: **Campbell**, 0% effort

9/24/21-8/31/24 Mentorship of Junior Investigators on HEAL-SKOAP  
K24 AR081143  
NIH/NINDS/NIAMS  
Total direct cost: \$299,998  
PI: **Campbell**, 25% effort

8-15-22-7-31-27 Optimizing pain-related outcomes following orthopedic trauma: testing novel risk factors and determining the feasibility of a new pain psychology intervention  
K23 HD104934  
Total direct cost: \$702,426  
PI: Aaron; Co-I/Sponsor: **Campbell**

Previous  
08/16/08-08/15/10 Ethnic differences in effects of opioid blockade and behavioral analgesia on pain  
F32 NS063624  
NIH/NINDS  
\$100,000  
**PI: Campbell**, 100%

01/01/09-06/01/14	Predicting Outcomes following Spinal Cord Stimulator Implantation Medtronic \$496,347 PI: Raja S; <b>Co-I: Campbell</b> , 10% salary support
2/01/09-11/30-14	Biobehavioral Risk Factors for Persistent Pain Following Total Knee Arthroplasty (multisite) AG034982 NIH / NIA \$665,705 PI: Haythornthwaite JH (JHH), Edwards RR (Harvard); <b>Co-I: Campbell</b> , no salary support
09/20/09-07/31/14	Clinical Implications of Pain Phenotypes in Sickle Cell Disease HL098110 NIH/HLBI \$457,034 PI: Haythornthwaite JH, <b>Co-I: Campbell</b> , no salary support
08/01/10-07/31/15	Predicting Post-Operative Pain and Analgesic Use: The Role of Endogenous Opioids K23 NS070933 NIH / NINDS \$176,094 <b>PI: Campbell</b> , 90% salary support
01/01/12-05/01/2014	Determining the role of stress hormones, inflammatory markers and sleep on ethnic disparities in pain perception American Pain Society \$20,000 <b>PI: Campbell</b> , no salary support
07/10/14-04/30/20	Ethnic Differences in Endogenous Pain Regulation: PET Imaging of Opioid Receptors R01 MD009063 NIH/MHD Total direct cost: 1,249,776.4 <b>PI: Campbell</b>
04/1/16-03/31/21	Chronic Orofacial Pain: Genetics Cognitive-Emotional Factors, and Endogenous Modulatory Systems, NCE R01 DE025946 NIH/NIDCR Total direct cost: \$1,299,975 PI: Colloca; <b>Subaward PI: Campbell</b> , 1%
08/14/18-08/13/20	Neural Mechanisms of Treatment Motivation and Adherence in Sickle Cell Disease F32 HL143941 NIH/NHLBI Total direct cost: \$126,308 PI: Letzen; <b>Mentor: Campbell</b> 0%
09/19/18-04/30/19	Ethnic Differences in Endogenous Pain Regulation: PET Imaging of Opioid Receptors - Supplement R01 MD009063 NIH/MHD Total direct cost: \$100,000 <b>PI: Campbell</b> , 5%
11/1/18-10/31/2020	Novel Biomarkers and Pain Phenotypes in Trigeminal Neuralgia Foundation for Anesthesia Education and Research (FAER) Total direct cost: \$250,000

PI: Doshi; **Mentor: Campbell** 0%

07/1/19-6/30/21 Evaluating dynamic associations between pain catastrophizing and the effect of cannabinoids  
F32 DA049393  
NIH/NIDA  
Total direct cost: \$126,308  
PI: Mun; **Mentor: Campbell** 0%

09/01/19-08/31/20 A sequenced-strategy for improving outcomes in patients with knee osteoarthritis pain  
UG3NS113988-01 (UH3 awarded)  
NIH/NINDS  
Total direct cost: \$572,627  
**Multi-PI:** Cohen, Castillo, **Campbell**, 25%

## INTRAMURAL Funding

### Current

10/1/19-09/30/21 mRNA in Personalized Pain Medicine  
JHMI Blaustein Pain Foundation  
Total direct cost: \$30,000  
PI: Doshi; **Mentor: Campbell** 0%

### Previous

01/01/09-01/01/14 Endogenous opioids: Involvement in the analgesic effects of distraction  
JHMI Blaustein Pain Foundation  
Total direct cost: \$34,000  
**Multi-PI:** M. Smith and **Campbell** (corresponding), no salary support

01/01/12-12/31/2013 Determining the role of stress hormones, inflammatory markers, genetics and sleep on ethnic disparities in pain perception – genetic substudy  
JHMI Blaustein Pain Foundation  
Total direct cost: \$13,500  
**PI: Campbell**, no salary support

10/1/18-09/30/20 Precision medicine for opioid use during and after surgery: The role of analgesic SNPs  
JHMI Neurosurgery Pain Research Institute  
Total direct cost: \$62,000  
PI: Arissa, **Mentor: Campbell** 0%

10/1/18-09/30/20 Pain and sensorimotor network disruption in cerebral palsy  
JHMI Neurosurgery Pain Research Institute  
Total direct cost: \$62,000  
PI: Chin, **Mentor: Campbell** 0%

## CLINICAL ACTIVITIES

### Certification

State of Maryland, Department of Health and Mental Hygiene  
Psychology License  
2010 – current #04840

Involved in the Cure Chronic Pancreatitis Pain Clinic, a multidisciplinary consultation clinic for patients with well-characterized chronic pancreatitis. We will establish a pancreatitis registry with clinical phenotyping and biobanking to collect comprehensive and longitudinal data on patients with CP to show the feasibility of conducting a neuromodulatory approach for treating patients with CP pain and evaluate best care practices in chronic pancreatitis.

## EDUCATIONAL ACTIVITIES

## Teaching

### Classroom instruction

- 2008 – 2012 Psychological Treatment Methods in Pain Patients. Invited presentation for the Anesthesiology Fellows. Johns Hopkins School of Medicine.
- 2011 Quantitative Sensory Testing: Why, How and When. Invited presentation for the T32 Postdoctoral Pain Fellows. Johns Hopkins School of Nursing.
- 2011 Individual Differences in Pain: Sex, Age and Ethnicity Matter. Invited presentation for the T32 Postdoctoral Pain Fellows. Johns Hopkins School of Nursing.
- 2012 Capsaicin Pain Experience. Medical student education course. Johns Hopkins University School of Medicine.
- 2012, 2013 Spinal Cord Stimulation and Predictors of Success. Invited presentation for the Anesthesiology Fellows. Johns Hopkins School of Medicine.
- 2014-2016 Quantitative Sensory Testing, why, when and how. Invited presentation for the Anesthesiology Fellows. Johns Hopkins School of Medicine.
- 2015 Quantitative Sensory Testing, why, when and how. Invited presentation for the T32 Postdoctoral Fellows. Johns Hopkins School of Medicine.
- 2015 Sickle Cell Disease, Pain and Inflammatory Reactivity. Presented to the Stress and Stress Response graduate course in the SON. Baltimore, MD.
- 2016 Central Sensitization and Sickle Cell Disease. Sickle Cell Interest Group Presentation. Baltimore, MD.
- 2017 Postoperative pain and predictors of risk. Invited presentation for the T32 Postdoctoral Fellows. Johns Hopkins School of Medicine.
- 2018 Postoperative pain and predictors of risk. Invited presentation for the T32 Postdoctoral Fellows. Johns Hopkins School of Medicine.
- 2019 Postoperative pain and predictors of risk. Invited presentation for the T32 Postdoctoral Fellows. Johns Hopkins School of Medicine.

### CME instruction (society/conference symposia)

#### JHMI/Regional

- 5/2021 Disparities in pain: Ethnic difference in pain perception. Neurosurgery Grand Rounds, Baltimore, MD

#### National

- 3/2010 Individual Differences in the Mechanisms of Distraction Analgesia. Invited Symposium Presenter, at the annual national conference of the American Pain Society, Baltimore, MD
- 2/2012 Disease Phenotyping: Experimental Pain and Spinal Cord Stimulation. Invited Symposium Presenter, American Academy of Pain Management, Palm Springs, CA
- 5/2013 Mechanisms of Ethnic Differences in Pain. Symposium presented at the American Pain Society Conference, New Orleans, LA
- 6/2013 Insomnia, Sleep Loss and Orofacial Pain. Invited speaker American Academy of Dental Sleep Medicine, Baltimore, MD
- 5/2016 Risk Factors for Chronic Postsurgical Pain. Symposium presented at the American Pain Society Conference, Austin, TX
- 5/2016 Pain Assessment in Chronic Pancreatitis. Symposium presented at Digestive Week Conference, San Diego, CA

#### Other

- 12/2018 Developed Cultural Competence CME content for pain management nursing requirements (Nurse.com)

### Workshops/seminars

- 5/2011 Invited Workshop, NIH Short Term Education Program (STEP) Forum, “Quantitative Sensory Testing (QST),” Bethesda, MD
- 5/2013 Invited Lecture, NIH NCAAM Forum, “Relevance of Quantitative Sensory Testing (QST),” Bethesda, MD

## Mentoring

### Pre-doctoral Advisees /Mentees

- 2008 – 2010 Kenneth Witmer, BS, currently a medical student at Georgetown University School of Medicine,

- Washington, DC. Role: Provided mentorship and research experience. Under my supervision, he earned the Johns Hopkins Neuroscience Award in 2010, Johns Hopkins University. Worked together on references #'s: 13, 18
- 2008 – 2011 Mpepera Simango, BS, currently a medical student at Trinity School of Medicine, Saint Vincent. Role: Provided mentorship and research experience. Together we published several abstracts and papers and her work was accepted for presentation at IASP in Montreal in 2010. Worked together on references #'s: 13, 18, 24
- 2009 – 2013 Sara Bounds, BA, currently a master's student at Oxford. Role: Provided mentorship and research experience as well as data analyses and writing supervision. Together we published several abstracts and papers and she received the Young Investigator Travel Award to the American Pain Society Conference in 2012 and 2013. Worked together on references #'s: 18, 24, 26, 27, 31
- 2010 – 2013 Lea McCauley, BS, currently a social worker. Role: Provided mentorship and research experience as well as data analyses and writing supervision. Together we published several abstracts and papers and she received the Young Investigator Travel Award to the American Pain Society Conference in 2013. Worked together on references #'s: 24, 31
- 2011 – 2013 Kasey Bond, BS, now Kasey Kiley, is currently a hospital administrator. Role: Provided mentorship and research experience as well as data analyses and writing supervision. Together we published several abstracts and papers and she received the Young Investigator Travel Award to the American Pain Society Conference in 2012 and 2013. Worked together on references #'s: 32, 35, 36, 37, 38, 40, 57
- 2011 – 2013 Megan Tripp, BS, currently a stay-at-home mom. Role: Provided mentorship and research experience as well as data analyses and writing supervision. Together we published several abstracts and papers and she received the Young Investigator Travel Award to the American Pain Society Conference in 2012 and 2013.
- 2013 – 2014 Emily Mallon, R.N., currently employed as a nurse. She participated in the Nursing Undergraduate Research Honors Program. Role: Provided primary research mentorship and training, she aided in development, implementation and completion of a research project within an ongoing study.
- 2015 – 2015 Hayley Spur, B.S., currently a medical student. Role: Mentored on a neurosurgery retrospective project as a summer medical student.
- 2015 – 2017 Matt Hand, B.S., currently a graduate student. Role: Mentored in developing ideas, running statistical analyses, writing an abstract/poster creation for APS and Sleep conferences. Worked together on references #'s: 37, 44,46
- 2015 – 2017 Megan Pejsa, B.S., currently a graduate student. Role: Mentored in developing ideas, running statistical analyses, writing an abstract/poster creation for APS and Sleep conferences, and working on writing a paper which is in preparation. She received the Young Investigator Travel Award to the American Pain Society Conference in 2015. Worked together on references #'s: 38, 40
- 2015 – 2019 Emily Burton, B.S., currently at University of Maryland Baltimore working towards a Masters in Social Work. Role: Mentor on developing ideas, running statistical analyses, writing abstracts and poster creation for APS and Sleep Conferences. Guided her through her first author publication and a Psychiatry Research Potpourri talk. Worked together on references #'s: 41, 58, 65
- 2015 – 2016 Lauren Swedberg, B.S. Currently a JHMI IRB consent specialist. Role: QST training/testing. Worked together on references #'s: 32, 36
- 2015 – 2016 Mary Redding, B.S. Currently a JHMI IRB consent specialist. Role: QST training/testing and mentored on abstract and poster creation for American Pain Society presentation. Worked together on references #'s: 31
- 2015 – 2016 Charles Odonkor, currently a psychiatry resident at Johns Hopkins Physical Medicine and Rehabilitation. Role: Mentored on two abstracts/posters presented at the American Pain Society. Of note, he earned a space in the 2016 Pain Fundamentals course and received a Young Investigator Award.
- 2015 – 2016 Gyasi Moscou-Jackson, RN. Currently a program officer for PCORI. Role: Mentored on analyses, poster and paper writing. She presented several posters at the American Pain Society conference, earned a Young Investigator Award to attend, and worked on multiple papers. Worked together on references #'s: 33, 37, 40, 47
- 2016 – 2017 Taylor Walls currently at Columbia University; Role: Mentored on QST and abstract/poster creation. She received the Young Investigator Award for the American Pain Society Conference in 2016. Worked together on references #'s: 58
- 2016 – 2017 Alex Pressman, currently a medical student at the University of Tulane. Role: Mentored on QST and abstract/poster creation as well as manuscripts; published 2 papers together. Worked together on

- references #'s: 45, 47
- 2017 – 2018 Bridget Sundel, B.S. Currently a research coordinator. Role: Mentored on QST and abstract/poster/paper writing.
- 2017 – 2020 Brook Fulton, B.S. Currently a research coordinator and enrolled at JHU for a masters in mental health counseling. Role: Mentoring on QST and overseeing her work on abstract/poster/paper writing. Worked together on references #'s: 65, 66
- 2017 – 2020 Alexandra Kearson, B.S. Currently our lab manager. Role: Mentoring on QST and overseeing her work on abstract/poster/paper writing.
- 2017 – 2018 Brandon Boring, currently a graduate student and research technician for a previous mentee at Texas A&M. Role: Mentored on QST and oversaw his work on abstract/poster/paper writing. Worked together on references #'s: 58
- 2017 – 2020 Sabrina Nance, currently a graduate student in Pharmacy. Role: Provide mentorship and research experience as well as data analyses and writing supervision. Together we published an abstract and she received the Young Investigator Travel Award to the American Pain Society Conference in 2017. Worked together on references #'s: 57, 63, 65
- 2020 – 2022 Caroline Webb, currently a research coordinator in my lab. Role: Provide mentorship and research experience as well as data analyses and writing supervision.

#### Post-doctoral Advisees /Mentees

- 2012 – 2014 Vani Mathur, Ph.D., T32 Pain Post-Doctoral Fellow, currently an Assistant Professor at Texas A&M. Role: Provide supervision and mentorship on research pursuits and career development as well as analyses, paper and grant writing. She received the Young Investigator Travel Award to the American Pain Society in 2012 and 2013. Worked together on references #'s: 24, 35, 38, 44
- 2014 – 2016 Janiece Taylor (now Walker), Ph.D., T32 Pain Post-Doctoral Fellow, currently an Assistant Professor at Johns Hopkins School of Nursing. Role: Provide supervision and mentorship on research pursuits and career development as well as analyses, paper and grant writing. Of note, she earned a space in the Pain Fundamentals course and received a Young Investigator Award in 2015. Worked together on references #'s: 41, 48
- 2017 – 2019 Mark Bicket, M.D. Currently appointed as a White House Fellow in the Office of Science and Technology Policy. Role: Provide supervision and mentorship on research pursuits and career development as well as analyses, paper and grant writing. Worked together on references #'s: 63
- 2017 – present Traci Speed, M.D., Ph.D. T32 Pain Post-Doctoral Fellow, currently an Assistant Professor at Johns Hopkins School of Medicine. Role: Mentored on abstract/posters and two recently published manuscripts as well as one in preparation. Provide mentorship on research pursuits and career development as well as analyses, paper and grant writing. Worked together on references #'s: 44, 46, 49, 58, 70, 72
- 2018 – 2019 Shaness Grenald, Ph.D. T32 Pain Post-Doctoral Fellow, currently a senior scientist at Johnson & Johnson. Role: Mentored on QST, specimen handling and clinical pain research.
- 2017 – 2022 Janelle Letzen, Ph.D. T32 Pain Post-Doctoral Fellow, was awarded an F32 under my mentorship and a K23. Transitioned to Assistant Professor in 2020, and NIH in August 2022. Role: Provide supervision and mentorship on research pursuits and career development as well as study conduct, analyses, paper and grant writing. Worked together on references #'s: 57, 58, 63, 65, 69, 72. Review references #'s: 10, 11, 12. Book chapter #5.
- 2017 – 2021 Joyce Teixeira Da Silva, Ph.D. Currently a University of Maryland Postdoctoral Fellow. Role: Mentoring on QST, training grant application to the International Association for the Study of Pain and her work on a first-authored review paper related to sickle cell disease. Worked together on review references #'s: 11
- 2017 – 2019 Alireza Mansouri, M.D. Currently a resident physician. Role: Mentoring on psychological factors related to pain.
- 2017 – 2022 Tim Meeker, Ph.D. Currently a postdoctoral fellow in Frederick Lenz's laboratory. Role: Writing mentor. Worked together on references #: 60
- 2018 – 2021 Chung Jung Mun, Ph.D. Was a T32 Pain Post-Doctoral Fellow, currently a new Assistant Professor at University of Arizona. His F32 training grant was scored in the 10<sup>th</sup> percentile and was funded on first submission under my mentorship. Role: Provide supervision and mentorship on research pursuits and career development as well as study conduct, analyses, paper and grant writing. Worked together on references #'s: 58, 63, 66, 67, 69, 70, 71, 72. Review reference #12
- 2018 – present Eric Chin, M.D. Currently a JHMI resident physician. Role: Mentor on QST and chronic pain populations as well as conducting pain research in pediatric populations; specifically in cerebral palsy.



- Worked together on references #'s: 68
- 2018 – 2021 Arissa Torrie, M.D. Currently a JHMI resident physician. Role: Mentor on chronic pain populations and clinical research as well as oversee her work on abstract/poster/paper writing; mentor on her NPRI award focused on genetics in postoperative pain control and in her ACCM research track.
- 2020 – present Michael Owens, Ph.D. Current T32 Pain Post-Doctoral Fellow. Role: Mentor on QST and chronic pain populations.
- 2020 – present Lakeya McGill, Ph.D. Current T32 Physical Medicine and Rehabilitation Post-Doctoral Fellow. Role: Mentoring on pain disparities, QST and clinical trials. Worked together on references #: 71
- 2021 – present Katrina Hamilton, Ph.D. Current T32 Pain Post-Doctoral Fellow. Role: Mentoring on pain disparities, chronic pain populations, QST and clinical trials.

### Faculty-level Mentees

- 2014 – 2020 Robin Miller, M.D. Currently an Assistant Professor, Nemours Pediatrics. Role: Mentor regarding QST with SCD patients. Worked together on references #'s: 55
- 2017 – 2022 Chao Hsing Yeh, Ph.D. Currently an Associate Professor. Role: Mentoring on QST and working together on several papers and grant applications. Worked together on references #: 64
- 2017 – present Tina Doshi, M.D. Currently an Assistant Professor at Johns Hopkins School of Medicine. Role: Provide supervision and mentorship on research pursuits and career development as well as analyses, paper and grant writing. Primary mentor on her newly funded diversity supplement. Worked together on review references #: 9, 13
- 2019 – present Sheera Lerman Zohar, Ph.D. Currently an Assistant Professor at Johns Hopkins School of Medicine. Role: Provide mentorship on research pursuits and career development as well as analyses, abstract, poster, paper and grant writing. Worked together on references #: 51
- 2019 – present Rachel Aaron, Ph.D. Currently an Assistant Professor at Johns Hopkins School of Medicine, Physical Medicine and Rehabilitation. Role: Mentoring on QST and clinical trials. Primary mentor on her well-scored K23 – awaiting counsel review. Worked together on references #: 71

## RESEARCH ACTIVITIES

### Research Focus

My research focuses on identifying mechanisms that underlie individual differences in pain processing and pain-related outcomes. Specifically, my work examines the contribution of central sensitization, the phenomenon of heightened CNS sensitivity, and other psychophysical, psychosocial and behavioral factors to poor outcomes, and how they confer heightened risk for developing and maintaining persistent pain; in the service of advancing personalized pain medicine. My ongoing studies seek to evaluate:

- Whether improving sleep reduces CNS sensitivity in sickle cell disease patients (R01 HL133327),
- If combined opioid and cannabinoid effects reduce central sensitization in healthy (R01 DA040644) and chronic pain patients (R01DA042751), and
- Which conservative and more aggressive interventions are most effective for individuals suffering with knee osteoarthritis (UG 3AR077360; UH3 transition NOA anticipated 9/2020).

### Research Program Building/Leadership

#### Psychophysical Pain Testing Laboratories (PPTL)

I took over leadership of the PPTL in the Behavioral Medicine Research Laboratory (BMRL) following the departure of Dr. Edwards in 2007. Under my leadership, the PPTL has expanded methodologies (Nociceptive Flexion Reflex, capsaicin, ischemic testing, and laser evoked pain) and includes new collaborations (Radiology/PET imaging, Anesthesiology, Neurosurgery, Nursing, Orthopedic Surgery, Public Health, Pediatrics). I have also developed and implemented training and quality assurance standards. In addition, I have created a system for procuring and managing our use of capsaicin.

#### Biological Samples Core

During my tenure in the PPTL, I have developed and implemented standards around organization, procurement, handling, storage, processing and shipping of human specimens (blood, saliva, urine). Additionally, I have developed biosafety standards for the PPTL in cooperation with the Environmental Safety Department and work with them on oversight and management.

## ORGANIZATIONAL ACTIVITIES

### Institutional Administrative Appointments

- 2015 – 2018 Blaustein Pain Grand Rounds speaker selection committee
- 2016 – 2018 Psychiatry Research Conference Committee

### Editorial Activities

#### Editorial Board Appointments

- 2011 – 2015 Faculty of 1000 Medicine
- 2012 – 2015 Pain Medicine
- 2013 – 2017 Future Medicine/Pain Management
- 2013 – 2019 Pain and Psychology Section Co-Editor, Body in Mind, a website dedicated to translating scientific pain-focused research for the lay public. <https://relief.news/category/body-in-mind/>
- 2018 – 2021 Pain Medicine, Section Co-Editor
- 2020 – present Pain Reports, Section Editor
- 2021 – present Pain Medicine, Executive Editor
- 2021 – present Journal of Pain, Editorial Board Member

#### Journal peer review activities

- 2005 – present Clinical Journal of Pain
- 2006 – present Journal of Pain
- 2007 – present Pain
- 2007 – present Anesthesiology
- 2007 – 2011 Behavior Medicine
- 2008 – 2011 Behavior Modification
- 2008 – 2011 Gender Medicine
- 2008 – 2011 Individual Differences
- 2008 – present Pain Medicine
- 2008 – present Rheumatology
- 2008 – present Journal of Rheumatology
- 2008 – present Arthritis Care and Research
- 2010 – 2012 Annals of Behavior Medicine
- 2010 – 2012 International Journal of Behavior Medicine
- 2010 – 2012 Journal of Pain and Symptom Management
- 2012 – 2019 Neuroimmunomodulation
- 2012 – present Pain Management
- 2014 – 2016 Medicine & Science in Sports & Exercise
- 2014 – 2017 Neuromodulation
- 2014 – 2018 Neuropsychopharmacology
- 2018 – 2019 Nursing Research
- 2018 – present Pain Reports

#### Advisory Committees, Review Groups/Study Sections

- 2012 Johns Hopkins Center for Behavior and Health, Pilot Grant Reviewer
- 2012-2015 Johns Hopkins, Pyramid Small Grant Reviewer
- 2014 American Pain Society, Psychosocial Research Shared Interest Group Junior Investigator Poster Award Committee Member
- 2014 Israel Science Foundation, Ad Hoc Reviewer
- 2014-2016 Johns Hopkins, Bayview Medical Campus, Community Research Advisor Council (C-RAC) Member
- 2016 Creative and Novel Ideas in HIV Research (CNIHR), Ad Hoc Reviewer
- 2017 NIH, Ad-Hoc Reviewer, Scientific Review Group for PAR-16-220, NST 1
- 2017 DoD, Ad-Hoc Reviewer, Clinical and Rehabilitative Medicine (CRM) peer review panel of the 2017 United States Army Medical Research and Materiel Command (MRMC)
- 2017 NIH, Ad-Hoc Reviewer, Special Emphasis Panel/Scientific Review Group 2017/07 ZRG1-IFCN-B-03M
- 2018 DoD, Ad-Hoc Reviewer, Clinical and Rehabilitative Medicine (CRM) peer review panel of the 2018 United States Army Medical Research and Materiel Command (MRMC)
- 2018 NIH, Ad-Hoc Reviewer, Special Emphasis Panel/Scientific Review Group 2018/05 ZRG1 ETIN-D (02) M
- 2018 UK Arthritis Foundation, Ad-Hoc Reviewer
- 2018 Johns Hopkins University, Catalyst and Discovery Awards Reviewer

2018 Uniformed Services University, Special Emphasis Panel/Scientific Review Group for “Pain Research and Management” 2018/08 ZRG1 ETTN-U (81) S

2018 – present Blaustein Pain Foundation Grant Reviewer (twice yearly)

2018 NIH, Ad-Hoc Reviewer, Special Emphasis Panel/Scientific Review Group 2018/08 ZRG1 ETTN-U 81 M

2018 COBRE Reviewer, Special Emphasis Panel/Scientific Review Group 2018/10 ZGM1 RCB-A (C1) 7/2018

2019 NIH, Ad-Hoc Reviewer, Ancillary Studies Reviewer; Special Emphasis Panel/Scientific Review Group 2019/05 ZAR1 YL (M1) 1 (R1) 3/2019

2019 Johns Hopkins University, Catalyst and Discovery Awards Reviewer

2019 Department of Veterans Affairs (NURB) Special Emphasis Panel/Scientific Review Group 2019/08 ZRD1 NURB-H (01) 1 5/2019

2019 Center for Medicinal Cannabis Research (CMCR) Grants Program Reviewer; University of California, San Diego

2019 NIH, Ad-Hoc Reviewer, Special Emphasis Panel/Scientific Review Group 2019/10 ZGM1 RCB-2 (C1)

2019 Ad-Hoc Reviewer, The Fund for Scientific Research – FNRS, Belgium

2019 Psychophysical and Psychosocial Biomarker Expert for the Transition from Acute to Chronic Pain Signatures (A2CPS) Program; NIH Common Fund; Washington, DC

2020 NIH, NIAMS Ad-Hoc Reviewer, Mechanistic Ancillary Studies Review Meeting; 2020/05 ZAR1 FY (M1)

2020 NIH, NIAMS Ad-Hoc Reviewer, Mechanistic Ancillary Studies Review Meeting; 2020/10 AMSC

2020 Johns Hopkins University, Catalyst Awards Reviewer

2020 University of Florida Claude D. Pepper Older Americans Independence Center Pilot & Exploratory Studies Core Ad-Hoc Reviewer

2020 NIH, NIAMS Ad-Hoc Reviewer, Mechanistic Ancillary Studies Review Meeting; NIAMS 2021/01 AMSC 1

2020 NIH, NIAMS Ad-Hoc Reviewer, Mechanistic Ancillary Studies Review Meeting; 2021/01 ZAR1 YL (M1) 2

2020 NIH, NCCIH Ad-Hoc Reviewer, Special Emphasis Panel/Scientific Review Group; 2021/01 ZAT1 SM (58) 2

2020 Invited panelist for a Johns Hopkins Institute for Clinical and Translational Research (ICTR) Studio session focused on pain in pancreatitis

2020 NIH, NCCIH Ad-Hoc Reviewer, Special Emphasis Panel/Scientific Review Group; 2021/01 ZAT1 JM (11) 2

2020 Johns Hopkins University, Catalyst and Discovery Awards Reviewer

2021 **Phenotypes and eXposures (PhenX) Toolkit for Sickle Cell Disease Pain Working Group**

2021 NIH, NCCIH Training and Education Review Panel (CI) 2021/05 ZAT1 PS (02) 2

2021 NIH, NIAMS Ad-Hoc Reviewer, Mechanistic Ancillary Studies Review Meeting; 2021/05 AMSC

2021 – 2022 Arthritis Foundation, Expert Panel Member, Integrative and Mental Health Program

2022 NIH, Special Emphasis, spring panel

2022 NIH, NCCIH ZAT1 JM(13) Training and Education Review Panel

2022 NIH, NINDS Ad-Hoc Reviewer, NST-2 2023/01

2022 NIH, ZNS1 Ad-Hoc Reviewer, SRB-R (08) R Oct panel member

2023 NIH Special Emphasis Panel/Scientific Review Group 2023/05 AMS meeting.

2023 NIH NCCIH ZAT1 MH03 LRP 2023/03

2023 OREF Osteoarthritis Research Grant Review 2023/04

2023 The Fund for Scientific Research – FNRS, 9/2023

2023 NIAMS Study Section Special Emphasis Panel/Scientific Review Group 2023/10 AMS meeting.

### Professional Societies

2002 – 2019 American Pain Society

2002 – 2019 American Pain Society, Psychosocial Research Shared Interest Group

2002 – 2019 American Pain Society, Genetics Shared Interest Group

2002 – 2005 American Psychological Association

2003 – 2004 American Psychological Association of Graduate Students

2003 – 2004 Florida Psychological Association

2004 – 2019 American Pain Society, Disparities Shared Interest Group

- 2007 – present International Association for the Study of Pain (IASP)
- 2009 – 2016 American Academy of Pain Management
- 2011 – 2014 Member, American Pain Society, Education Advisory Committee
- 2012 – 2014 International Association for the Study of Pain, Society Improvement Task Force
- 2013 – 2014 Member, American Pain Society, Nominations Committee
- 2013 – 2018 Member, American Pain Society, Communications/Web Content Committee
- 2014 – 2015 Member, American Pain Society, Awards Committee
- 2014 – 2016 Chair, Psychosocial Research Shared Interest Group, American Pain Society
- 2014 – 2018 Poster Rounds Faculty Mentor, American Pain Society
- 2016 – 2019 Early Career Forum Mentor, American Pain Society
- 2016 – 2019 Director-At-Large, Board of Directors, American Pain Society
- 2016 – 2019 Chair, Membership Committee, American Pain Society
- 2016 – 2019 American Pain Society Board Liaison to the National Pain Research Fund
- 2017 – 2019 American Pain Society Board Liaison to the Early Career Advisory Group
- 2020 – present American Society for the Study of Pain (USASP)
- 2020 Early Career Mentor; American Society for the Study of Pain (USASP)
- 2022 – present Membership Committee, American Society for the Study of Pain (USASP)

### Conference Organizer

#### National

- 2014 – 2016 Member, American Pain Society, Scientific Program Committee

#### International

- 2020 – present IASP Special Interest Group on Neuropathic Pain (NeuPSIG), Scientific Program Committee
- 2021 – present NeuPSIG Scientific Program Committee

### Consultantships

- 2016 – 2019 PainCare – working to develop a pain management Smartphone application
- 2019 – present Adynxx, Inc. – consultant on pain biomarker development

## RECOGNITION

### Awards, Honors

- 1997 – 2002 Golden Key National Honor Society
- 2000 – 2003 Psi Chi Honor Society in Psychology, University of Florida
- 2002 – 2004 Young Investigator Award, American Pain Society (\$750/conference)
- 2003 American Pain Society, Citation Award: Merit award presented for outstanding research
- 2005 First place award, University of Florida, College of Dentistry Research Competition (\$300): In recognition of excellence in research
- 2005 Pain Management Scholars Program, American Pain Society
- 2006 – 2009 Young Investigator Award, American Pain Society (\$750/conference)
- 2009 1<sup>st</sup> Place Postdoctoral Award (\$500): Johns Hopkins School of Nursing New Investigator's Day, presented for outstanding research
- 2011 Short Term Education Program (STEP) Service Award, National Institutes of Health
- 2013 - 2014 Participant in the Leadership Program for Women Faculty through the SOM Office of Women in Science and Medicine/SOM Office of Faculty Development/Office of Talent Management and Organization Development
- 2014 John C. Liebeskind Early Career Scholar, American Pain Society Award (\$1,000): In recognition of early career achievements and promise for outstanding contribution to pain scholarship
- 2021 Named one of the top 100 pain experts in the world by Expertscape
- 2021 Named #3 highest NIH grant funding awardee in Anesthesia, 2021 by Blue Ridge Institute for Medical Research

### Invited Talks, Panels

#### JHMI/Regional

- 1/2010 Individual Differences and Mechanisms of Distraction Analgesia. Invited Presenter, Psychiatry Research Conference, Baltimore, MD.
- 11/2010 Sleep, Catastrophizing & Pain in Distraction Analgesia. JHU Blaustein Pain Conference, Baltimore, MD.

- 4/2012 The Relationship Between Pain and Sleep. University of Maryland/Johns Hopkins Joint Pain Workshop, Baltimore, MD.
- 4/2013 Mechanisms of Ethnic Differences in Pain. JHU Blaustein Pain Conference, Baltimore, MD.
- 10/2015 Disparities in pain: Ethnic differences in pain perception. Psychiatry Grand Rounds, Baltimore, MD.
- 4/2017 Postsurgical Pain. Symposium presented at the Blaustein Pain Conference, Baltimore, MD.

National

- 2010 Individual Differences in the Mechanisms of Distraction Analgesia. Invited Symposium Presenter, at the annual national conference of the American Pain Society, Baltimore, MD.
- 2011 Quantitative Sensory Testing (QST). Invited Speaker, NIH Pain STEP Forum, Bethesda, MD.
- 2011 Self-reported sleep duration associated with distraction analgesia, hyperemia, and secondary hyperalgesia in the heat-capsaicin nociceptive model. Invited Poster Presenter, NIH Pain Consortium, Bethesda, MD.
- 2012 Disease Phenotyping: Experimental Pain and Spinal Cord Stimulation. Invited Symposium Presenter, American Academy of Pain Management, Palm Springs, CA.
- 6/2013 Pain Psychophysiology uncovered through QST. NCAAM invited talk to overview QST methods and mechanisms. Bethesda, MD.
- 6/2013 Mechanisms of Ethnic Differences in Pain. Symposium presented at the American Pain Society Conference, New Orleans, LA.
- 6/2013 Insomnia, Sleep Loss and Orofacial Pain. Invited speaker American Academy of Dental Sleep Medicine, Baltimore, MD.
- 4/2014 Biopsychosocial Mechanisms of Ethnic Differences in Pain. Presented at Grand Rounds, Center for Pain Research, University of Pittsburgh; Pittsburgh, PA.
- 4/2014 Guest Speaker, University of Pittsburgh, Center for Pain Research, “Mechanisms of Ethnic Differences in Pain,” Pittsburgh, PA.
- 5/2016 Predicting Postsurgical Pain. Symposium presented at the American Pain Society Conference, Austin, TX.
- 10/2017 The Ins and Outs of Quantitative Sensory Testing. Yale; New Haven, CT.
- 1/2018 Risks for Developing Postsurgical Pain. University of Washington, Anesthesiology Grand Rounds. Seattle, WA.
- 2/2018 Risk Factors for Developing Postsurgical Pain. Rutgers, Department of Anesthesiology & Department of Pharmacology, Physiology and Neuroscience NJMS Rounds. Newark, NJ.
- 6/2018 Insights into ethnic disparities from laboratory pain testing studies. Invited presentation at the NIH Pain Consortium, Bethesda, MD.
- 4/2019 Women’s Leadership Workshop. Speaker and breakout co-leader for ‘Balancing Career and Family’. American Pain Society. Milwaukee, WI.
- 7/2019 Implications of somatosensory amplification for the design of chronic pain clinical trials. Invited presentation to the Initiative on Methods, Measurement, and Pain Assessment in Clinical Trials (IMPACT-XXIII), Washington, DC.
- 9/2019 Individual Differences in Pain: Implications for the Current Opioid Crisis. Invited presentation to the opioid crisis in cancer pain knowledge dissemination/research planning initiative. Montreal, CA
- 11/2019 HEAL Sequential Treatment for Knee Osteoarthritis Pain. Research project presentation at the Effectiveness Research Network (ERN). Washington, DC.
- 12/2019 Mechanisms of Sex Differences in the Pain Experience. Cognitive, Affective, and Social Processes in Health Research (CASPHR) working group. National Cancer Institute. Washington, DC.
- 2/2020 Co-morbidities in Chronic Pain Measurement and Potential Impact on Markers. Behavioral, Social and Biological Biomarkers: Towards Comprehensive Measurement of Pain Washington, DC.
- 11/2020 Biopsychosocial Mechanisms of Ethnic Differences in Pain. Presentation at the VCU Pain Special Interest Group, Virginia Commonwealth University.

International

- 9/2014 Pain and Psychological Factors Associated with Marfan Syndrome. Invited presentation at the Marfan Foundation Research Society, Paris, France.
- 5/2016 Assessing Pain in Chronic Pancreatitis. Invited presentation at Digestive Disease Week, a collaboration between multiple international societies, San Diego, CA.
- 8/2018 Quantitative Sensory Testing (QST) Hands-on Workshop. Invited workshop at the International Association for the Study of Pain (IASP), Boston, Massachusetts.