




Sean Mackey, MD, PhD

Redlich Professor, Professor of Anesthesiology, Perioperative, and Pain Medicine and, by courtesy, of Neurology at the Stanford University Medical Center

Anesthesiology, Perioperative and Pain Medicine

 NIH Biosketch available Online

 Curriculum Vitae available Online

CLINICAL OFFICES

- **Stanford Pain Management Center**

450 Broadway St

Pavilion A 1st Fl MC 5340

Redwood City, CA 94063

Tel (650) 723-6238

Fax (650) 721-3417

ACADEMIC CONTACT INFORMATION

- **Administrative Contact**

Wendy M. Schadle - Administrative Assistant

Email wendy3@stanford.edu

Tel (650) 736-1847

Bio

BIO

Sean Mackey, M.D., Ph.D, is Chief of the Division of Pain Medicine and Redlich Professor of Anesthesiology, Perioperative and Pain Medicine, Neurosciences and Neurology at Stanford University. He is the Immediate Past President of the American Academy of Pain Medicine. Dr. Mackey received his BSE and MSE in Bioengineering from University of Pennsylvania and his PhD in Electrical and Computer Engineering as well as MD from University of Arizona. Dr. Mackey is author of over 200 journal articles, book chapters, abstracts, and popular press pieces in addition to numerous national and international lectures.

Under Dr. Mackey's leadership, the Stanford Pain Management Center has been designated a Center of Excellence by the American Pain Society, one of only two centers to receive this honor twice. In 2011 he was a member of the Institutes of Medicine committee that issued the report on Relieving Pain in America. He is currently Co-Chair of the Oversight Committee for the NIH/Health and Human Services National Pain Strategy, an effort to establish a national health strategy for pain care, education and research.

Under Dr. Sean Mackey's leadership, researchers at the Stanford Pain Management Center and the Stanford Systems Neuroscience and Pain Laboratory (SNAPL) have made major advances in the understanding of chronic pain as a disease in its own right, one that fundamentally alters the nervous system. Dr. Mackey has overseen efforts to map the specific brain and spinal cord regions that perceive and process pain, which has led to the development of a multidisciplinary treatment model that translates basic science research into innovative therapies to provide more effective, personalized treatments for patients with chronic pain.

CLINICAL FOCUS

- Chronic Pain
- Pain Management
- Pain Medicine
- Neuropathic Pain
- Complex Regional Pain Syndrome
- Back Pain
- Acute Pain
- reflex sympathetic dystrophy
- Facial Pain
- Headache
- Anesthesia

ACADEMIC APPOINTMENTS

- Professor - Med Center Line, Anesthesiology, Perioperative and Pain Medicine
- Professor - Med Center Line (By courtesy), Neurology & Neurological Sciences
- Member, Bio-X
- Member, Cardiovascular Institute
- Member, Stanford Cancer Institute
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Redlich Professor, Anesthesia & Pain Management, Neurosciences and (by courtesy) Neurology, Stanford University, (2012- present)
- Chief, Division of Pain Medicine, Stanford University, (2007- present)
- Fellowship Program Director, Pain Medicine, Stanford University, (2007- present)
- Associate Professor, Anesthesia & Pain Management, Neurosciences and (by courtesy) Neurology, Stanford University, (2007-2012)
- Co-Director, Pain Working Group, Neuroscience Institute, Stanford University, (2005- present)
- Co-Director, Stanford Pain Research and Clinical Center (SPARCC), (2004- present)
- Associate Director, Pain Management Division, Stanford University, (2004-2007)
- Director, Stanford Systems Neuroscience and Pain Lab (SNAPL), (2002- present)
- Director (and Co-Founder), Regional Anesthesia Services, (2000-2006)
- Assistant Professor, Anesthesia & Pain Management, Neurosciences, Stanford University, (1999-2007)

HONORS AND AWARDS

- Distinguished Service Award, American Academy of Pain Medicine (2017)
- Pain Medicine Fellowship Award, American Academy of Pain Medicine (2017)
- Wilbert E. Fordyce Clinical Investigator Award, American Pain Society (2016)
- NIH Directors Award, National Institutes of Health (2015)
- Clinical Center of Excellence, American Pain Society (2012)
- Presidential Commendation, American Academy of Pain Medicine (2012)
- U.S. News and World Report Top 1% of Pain Management Specialists, U.S. News and World Report (2012)
- Stanford CAM Center for Chronic Back Pain, NIH P01 AT006651 (2011-2016)
- Stanford CAM Center for Chronic Back Pain Supplement, NIH P01 AT006651S1 (2011-2012)
- Neuroimaging and Mentoring in Translational Pain Research, NIH K24 DA029262 (2010-2015)
- Ellis Cohen Achievement Award, Department of Anesthesia, Stanford University (2010)
- Chris Redlich Endowment in Pain Research, Chris Redlich Endowment Fund (2009-forever)
- Learned Control of Frontal and Limbic Systems via Real-Time fMRI, NIH R21 DA026092 (2009-2011)
- Development and Applications of Real Time fMRI Technology, Stanford Bio-X (2009-2010)
- Central Mechanisms of Urologic Pelvic Pain: Functional and Structural Analysis by MRI, NIH U01 DK082316 (2008-2013)
- Prescription Opioid Use, Misuse, and Pain in Post-Surgical Patients, NIH K23 DA25152 (2008-2013)
- Low-Dose Naltrexone in the Treatment of Fibromyalgia, American Fibromyalgia Syndrome Association (2008-2009)
- Mechanisms of Opioid-Induced Hyperalgesia in Pain Patients: Examination via fMRI, NIH K99/R00 DA023609 (2007-2011)
- Mechanisms of Analgesic Response During IV Lidocaine Infusion in Neuropathic Pain Patients, Foundation for Anesthesia Education and Research (2007-2008)

- fMRI of Pain in the Human Spinal Cord, NIH R01 NS053961 (2006-2010)
- Duloxetine: Functional MRI Neural Correlates of Efficacy in Patients with Chronic Low Back Pain, Eli Lilly (2006-2009)
- Fellowship Grant, Arthritis Foundation (2006-2007)
- Applications of Real Time fMRI-Phase II, NIH R44 NS050642 (2004-2007)
- Imaging Neural Systems in Complex Regional Pain Syndrome, Foundation for Anesthesia Education & Research (2004-2006)
- Teacher of the Month, Stanford Department of Anesthesia (2003)
- Applications of Real Time fMRI, NIH R43MH067290 (2002-2004)
- Top Doctors in America, Published in "Guide to Top Doctors" (2002, 2004-2006, 2008, 2010, 2012-2015)
- Processing of Pain in the Human Central Nervous System: Analysis through fMRI, Stanford Office of Technology Licensing Grant (2001-2004)
- Use of NMDA-Antagonists and Opiates in the Treatment of Fibromyalgia, Oxnard Foundation (2001-2004)
- Dodie and John Rosekrans Pain Research Endowment Fund, Dodie and John Rosekrans Pain Research Endowment Fund (2001 - forever)
- Cognitive Neurosciences Grant, Clark Center for Bioengineering, Biomedicine & Bioscience (2000)
- Development of a Human Neuropathic Pain Model, Stanford University (1999-2007)
- Interventional Magnetic Resonance Imaging Applied to Regional Anesthesia and Pain Medicine, Stanford University (1999-2003)
- Electrical and Thermal Characterization of Radiofrequency Catheter Ablation, American College of Cardiology Research Grant (1994)
- TV Catheter Delivery of Elec Energy to Ablate Arrhythmogenic Tissue..., Alpha Omega Alpha Honor Society Research Fellowship (1991-1992)
- Characterization & Optimization of RF Catheter Ablation for the Treatment of Cardiac Arrhythmias, American Heart Association Fellowship (1990-1991)
- Optimal Control of Transvenous Catheter Ablation in the Treatment of Tachyarrhythmias, NIH Short Term Research Fellowship (1989-1994)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Reviewer, American Society of Anesthesiologists Committee on Research (ASA) (2017 - present)
- Committee Member - Marshaling Physician Leadership to Counter Opioid Epidemic, National Academy of Medicine (2017 - 2017)
- Oversight Committee, Analgesic, Anesthetic, and Addiction Clinical Trial Translations, Innovations, Opportunities, and Networks (2017 - 2017)
- Panelist, National Academies of Sciences, Engineering, and Medicine (2017 - 2017)
- Working Group Member to add Pain and Opioid questions to National Health Interview Survey, Centers for Disease Control and Prevention (CDC) (2016 - 2017)
- Board Member, The Association of Pain Program Directors (2015 - present)
- Immediate Past-President, American Academy of Pain Medicine (2015 - 2016)
- Panelist - Healthy People 2020 Chronic Pain Workgroup, National Institute of Health (NIH) (2014 - 2016)
- President, American Academy of Pain Medicine (2014 - 2015)
- Committee Member, National Comprehensive Cancer Network, Adult Cancer Pain Committee (2013 - present)
- Co-Chair - Prevention and Care Working Group, National Pain Strategy Task Force (NPSTF) (2013 - 2016)
- Member - Pain Consortium Chronic Low Back Pain Research Task Force, National Institute of Health (NIH) (2013 - 2014)
- Chair, Department of Anesthesia; Stanford School of Medicine, Faculty & Development and Mentoring Committee (2013 - 2013)
- Committee Member, Department of Anesthesia; Stanford School of Medicine, Finance Committee (2012 - present)
- Co-Chair, National Pain Strategy Task Force (NPSTF) (2012 - 2016)
- Member - Inter agency Pain Research Coordinating Committee, National Institute of Health (NIH) (2012 - 2013)
- Co-Chair Annual Meeting, American Academy of Pain Medicine (2012 - 2012)
- Vice President Scientific Affairs, American Academy of Pain Medicine (2011 - 2013)
- Committee Member & Author, Institute of Medicine (IOM) (2010 - 2011)
- Member, American Academy of Pain Research Committee (2009 - present)

- Member - CME Oversight Committee, American Academy of Pain Medicine (2009 - present)
- Member, American Academy of Pain Medicine Executive Committee (2009 - 2015)
- Member, American Pain Society Nominating Committee (2009 - 2011)
- Member - Appointments & Promotions Committee, Department of Anesthesia; Stanford School of Medicine (2008 - present)
- Director at Large, American Academy of Pain Medicine (2008 - 2015)
- Committee Member, California Department of Workers Compensation (2007 - present)
- Member - Research Committee, Department of Anesthesia; Stanford School of Medicine (2005 - present)
- Member - Neuroscience Committee, Stanford University, Neuroscience (2004 - present)
- Member - Governance Committee, Department of Anesthesia; Stanford School of Medicine (2003 - present)
- Member - Residency Selection Committee, Department of Anesthesia; Stanford School of Medicine (1999 - present)

PROFESSIONAL EDUCATION

- Internship: Tucson Medical Center Medical Education Program (1995) AZ
- Medical Education: University of Arizona (1994) AZ
- Residency: Stanford University School of Medicine (1998) CA
- Fellowship: Stanford University School of Medicine (1999) CA
- Board Certification: Pain Management, American Board of Anesthesiology (2000)
- Board Certification: Anesthesia, American Board of Anesthesiology (1999)
- M.D., University of Arizona , Medicine (1994)
- Ph.D., University of Arizona , Electrical Engineering (1994)
- M.S.E., University of Pennsylvania , Bioengineering (1986)
- B.S.E., University of Pennsylvania , Bioengineering (1986)

PATENTS

- Sean Mackey, Ian Carroll, David Clark. "United States Patent 2005072433 Toxin Induced Sympathectomy", Jan 26, 2004
- Sean Mackey. "United States Patent 5837001 Radio Frequency Energy Delivery System for Multipolar Electrode Catheters", Nov 17, 1998

LINKS

- Twitter: <https://twitter.com/DrSeanMackey>
- Lab Website: <http://med.stanford.edu/pain/snapl.html>
- Personal Site: <http://drseanmackey.com>
- ResearchGate: https://www.researchgate.net/profile/Sean_Mackey

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Functional neuroimaging of pain. Imaging of cognitive and affective dimensions of pain, neural plasticity contributing to chronic pain and effects of treatment.

Effects of membrane stabilizing medications on neuropathic pain.

Chronic pain outcomes tools development and measurement.

CLINICAL TRIALS

- Cardiovascular Outcomes Assessment of the MitraClip Percutaneous Therapy for Heart Failure Patients With Functional Mitral Regurgitation (The COAPT Trial), Recruiting
- Low-Dose Naltrexone for the Treatment of Complex Regional Pain Syndrome, Recruiting
- Single Session Pain Catastrophizing Treatment: Comparative Efficacy & Mechanisms, Recruiting
- Stanford Center for Back Pain, Recruiting
- TMS for Complex Regional Pain Syndrome, Recruiting
- A Pilot Clinical Trial of Sympathetic Blockade With Botulinum Toxin Type A to Treat Complex Regional Pain Syndrome (CRPS): a Randomized, Double-Blind, Controlled, Crossover Trial., Not Recruiting
- Acupuncture and Pain Processing, Not Recruiting
- Applications of Realtime Functional Magnetic Resonance Imaging (fMRI), Not Recruiting
- Compassion Training and Pain, Not Recruiting
- Effect of IV Lidocaine Infusions on Pain, Not Recruiting
- Effect of Ondansetron for Withdrawal Symptoms, Not Recruiting
- Effects of Low Dose Naltrexone in Fibromyalgia, Not Recruiting
- Imaging Study of Chronic Low Back Pain in Patients Taking Pain Medication, Not Recruiting
- Stanford Accelerated Recovery Trial (START), Not Recruiting
- Study of T3 for the Treatment of Fibromyalgia, Not Recruiting
- Subcutaneous Botulinum Toxin for Cutaneous Allodynia, Not Recruiting
- Subcutaneous Botulinum Toxin for Cutaneous Allodynia - Enriched Responder Trial, Not Recruiting

Teaching

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Gad Gilam, Behnaz Jarrahi, Bianca Karshikoff, Chinwe Nwaneshiudu, Jessica Ross, Dokyoung You

Postdoctoral Research Mentor

Gad Gilam, Behnaz Jarrahi, Bianca Karshikoff, Chelsea Shover, Maisa Ziadni

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Anesthesia (Fellowship Program)
- Bioengineering (Phd Program)
- Neurosciences (Phd Program)

Publications

PUBLICATIONS

- **Succinylcholine Use and Dantrolene Availability for Malignant Hyperthermia Treatment: Database Analyses and Systematic Review.** *Anesthesiology* Larach, M. G., Klumpner, T. T., Brandom, B. W., Vaughn, M. T., Belani, K. G., Herlich, A., Kim, T. W., Limoncelli, J., Riazi, S., Sivak, E. L., Capacchione, J., Mashman, D., Kheterpal, et al
2019; 130 (1): 41–54
- **Central mechanisms of real and sham electroacupuncture in the treatment of chronic low back pain: study protocol for a randomized, placebo-controlled clinical trial.** *Trials*
Kong, J., MacIsaac, B., Cogan, R., Ng, A., Law, C. S., Helms, J., Schnyer, R., Karayannis, N. V., Kao, M., Tian, L., Darnall, B. D., Gross, J. J., Mackey, et al

2018; 19 (1): 685

- **Striatal dopamine deficits predict reductions in striatal functional connectivity in major depression: a concurrent 11C-raclopride positron emission tomography and functional magnetic resonance imaging investigation.** *Translational psychiatry*
Hamilton, J. P., Sacchet, M. D., Hjørnevik, T., Chin, F. T., Shen, B., Kampe, R., Park, J. H., Knutson, B. D., Williams, L. M., Borg, N., Zaharchuk, G., Camacho, M. C., Mackey, et al
2018; 8 (1): 264
- **International Stakeholder Community of Pain Experts and Leaders Call for an Urgent Action on Forced Opioid Tapering.** *Pain medicine (Malden, Mass.)*
Darnall, B. D., Juurlink, D., Kerns, R. D., Mackey, S., Van Dorsten, B., Humphreys, K., Gonzalez-Sotomayor, J. A., Furlan, A., Gordon, A. J., Gordon, D. B., Hoffman, D. E., Katz, J., Kertesz, et al
2018
- **Electronic Patient-Reported Outcomes: Semi-Automated Data Collection in the Interventional Radiology Clinic.** *Journal of the American College of Radiology : JACR*
Hoang, N. S., Hwang, W., Katz, D. A., Mackey, S. C., Hofmann, L. V.
2018
- **Dynamic per slice Shimming for Simultaneous Brain and Spinal Cord fMRI.** *Magnetic resonance in medicine*
Islam, H., Law, C. S., Weber, K. A., Mackey, S. C., Glover, G. H.
2018
- **Altered Cervical Spinal Cord Resting State Activity in Fibromyalgia.** *Arthritis & rheumatology (Hoboken, N.J.)*
Martucci, K. T., Weber, K. A., Mackey, S. C.
2018
- **The factor structure and subscale properties of the pain catastrophizing scale: are there differences in the distinctions?**
Cook, K., Darnall, B., Mackey, S.
SPRINGER.2018: S38
- **Prevalence of Chronic Pain and High-Impact Chronic Pain Among Adults - United States, 2016** *MMWR-MORBIDITY AND MORTALITY WEEKLY REPORT*
Dahlhamer, J., Lucas, J., Zelaya, C., Nahin, R., Mackey, S., DeBar, L., Kerns, R., Von Korff, M., Porter, L., Helmick, C.
2018; 67 (36): 1001-6
- **Use of Immersive Learning and Simulation Techniques to Teach and Research Opioid Prescribing Practices.** *Pain medicine (Malden, Mass.)*
Heirich, M. S., Sinjary, L. S., Ziadni, M. S., Sacks, S., Buchanan, A. S., Mackey, S. C., Newmark, J. L.
2018
- **Cold Water Pressor Test Differentially Modulates Functional Network Connectivity in Fibromyalgia Patients Compared with Healthy Controls.** *Conference proceedings : ... Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Annual Conference*
Jarrahi, B., Martucci, K. T., Nilakantan, A. S., Mackey, S.
2018; 2018: 578-82
- **Characterizing the Effects of MR Image Quality Metrics on Intrinsic Connectivity Brain Networks: A Multivariate Approach.** *Conference proceedings : ... Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Annual Conference*
Jarrahi, B., Mackey, S.
2018; 2018: 1041-45
- **Measuring the Influence of Physiological Noise Corrections on ICA Derived Intrinsic Connectivity Brain Networks in Rest and Task fMRI.** *Conference proceedings : ... Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Annual Conference*
Jarrahi, B., Mackey, S.
2018; 2018: 1046-49
- **Neuroimaging of Pain: Human Evidence and Clinical Relevance of Central Nervous System Processes and Modulation.** *Anesthesiology*
Martucci, K. T., Mackey, S. C.
2018; 128 (6): 1241-54
- **A Case-Crossover Study of Urological Chronic Pelvic Pain Syndrome Flare Triggers in the MAPP Research Network** *JOURNAL OF UROLOGY*

- Sutcliffe, S., Jemielita, T., Lai, H., Andriole, G. L., Bradley, C. S., Clemens, J., Gallop, R., Hooton, T. M., Kreder, K. J., Krieger, J. N., Kusek, J. W., Labus, J., Lucia, et al
2018; 199 (5): 1245–51
- **The Impact of Social Isolation on Pain Interference: A Longitudinal Study.** *Annals of behavioral medicine : a publication of the Society of Behavioral Medicine*
Karayannis, N. V., Baumann, I., Sturgeon, J. A., Melloh, M., Mackey, S. C.
2018
 - **Effects of Opioids on Causal Relationships Between Intrinsic Connectivity Brain Networks in Patients with Chronic Low Back Pain - A Resting-State fMRI Study**
Jarrahi, B., Mackey, S.
LIPPINCOTT WILLIAMS & WILKINS.2018
 - **Altered prefrontal correlates of monetary anticipation and outcome in chronic pain.** *Pain*
Martucci, K. T., Borg, N., MacNiven, K. H., Knutson, B., Mackey, S. C.
2018
 - **Predictors of Daily Pain Medication Use in Individuals with Recurrent Back Pain** *INTERNATIONAL JOURNAL OF BEHAVIORAL MEDICINE*
Sturgeon, J. A., Hah, J. M., Sharifzadeh, Y., Middleton, S. K., Rico, T., Johnson, K. A., Mackey, S. C.
2018; 25 (2): 252–58
 - **The impact of perceived injustice on pain-related outcomes: A combined model examining the mediating roles of pain acceptance and anger in a chronic pain sample** *Clin J Pain*
Carrier, J., Sturgeon, J., Yakabov, E., Kao, M., Mackey, S., Darnall, B.
2018: 739–47
 - **Scope and Nature of Pain and Analgesia-Related Content of the United States Medical Licensing Examination (USMLE)** *Pain Medicine*
Fishman, S., Carr, D., Hogans, B., Cheatle, M., Gallagher, R., Katzman, J., Mackey, S., Young, H.
2018: 449–59
 - **The impact of perceived injustice on pain-related outcomes: A combined model examining the mediating roles of pain acceptance and anger in a chronic pain sample** *Clin J Pain*
Carriere, J., Sturgeon, J., Yakobov, E., Kao, M., Mackey, S., Darnall, B.
2018
 - **Advancing Transcranial Magnetic Stimulation Methods for Complex Regional Pain Syndrome: An Open-Label Study of Paired Theta Burst and High-Frequency Stimulation** *Neuromodulation*
Gaertner, M., Kong, J., Scherrer, K., Foote, A., Mackey, S., Johnson, K.
2018
 - **Comparative Efficacy and Mechanisms of a Single-Session Pain Psychology Class in Chronic Low Back Pain: Study Protocol for a Randomized Controlled Trial** *Trials*
Darnall, B., Siadni, M., Roy, A., Kao, M., Sturgeon, J., Cook, K., Lorig, K., Burns, J., Mackey, S.
2018: 165
 - **Neuroimaging of Pain: Human Evidence and Clinical Relevance of Central Nervous System Processes and Modulation** *Anesthesiology*
Martucci, K., Mackey, S.
2018
 - **Automatic Segmentation of Cervical Spinal Cord Damage in Incomplete Spinal Cord Injury using Three-Dimensional T₂-Weighted Magnetic Resonance Imaging and Convolutional Neural Networks: An Application of V-Net on the NiftyNet Platform** *Radiology*
Weber, K., Mackey, S.
2018
 - **Radiofrequency Denervation for Chronic Low Back Pain** *JAMA-JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION*
Kao, M., Leong, M. S., Mackey, S.
2017; 318 (22): 2256
 - **Resting-state functional connectivity predicts longitudinal pain symptom change in urologic chronic pelvic pain syndrome: a MAPP network study.** *Pain*
Kutch, J. J., Labus, J. S., Harris, R. E., Martucci, K. T., Farmer, M. A., Fenske, S., Fling, C., Ichesco, E., Peltier, S., Petre, B., Guo, W., Hou, X., Stephens, et al

2017; 158 (6): 1069-1082

- **Development and Validation of a Daily Pain Catastrophizing Scale.** *journal of pain*
Darnall, B. D., Sturgeon, J. A., Cook, K. F., Taub, C. J., Roy, A., Burns, J. W., Sullivan, M., Mackey, S. C.
2017
- **The ACTION-APS-AAPM Pain Taxonomy (AAAPT) Multidimensional Approach to Classifying Acute Pain Conditions** *JOURNAL OF PAIN*
Kent, M. L., Tighe, P. J., Belfer, I., Brennan, T. J., Bruehl, S., Brummett, C. M., Buckenmaier, C. C., Buvanendran, A., Cohen, R. I., Desjardins, P., Edwards, D., Fillingim, R., Gewandter, et al
2017; 18 (5): 479-489
- **Association between concurrent use of prescription opioids and benzodiazepines and overdose: retrospective analysis** *BMJ-BRITISH MEDICAL JOURNAL*
Sun, E. C., Dixit, A., Humphreys, K., Darnall, B. D., Baker, L. C., Mackey, S.
2017; 356
- **A Double-Blind Placebo Randomized Controlled Trial of Minocycline to Reduce Pain After Carpal Tunnel and Trigger Finger Release.** *journal of hand surgery*
Curtin, C. M., Kenney, D., Suarez, P., Hentz, V. R., Hernandez-Boussard, T., Mackey, S., Carroll, I. R.
2017; 42 (3): 166-174
- **Pain interference and physical function demonstrate poor longitudinal association in people living with pain: A PROMIS investigation.** *Pain*
Karayannis, N. V., Sturgeon, J. A., Chih-Kao, M., Cooley, C., Mackey, S. C.
2017
- **Effects of a Pain Catastrophizing Induction on Sensory Testing in Women with Chronic Low Back Pain: A Pilot Study** *PAIN RESEARCH & MANAGEMENT*
Taub, C. J., Sturgeon, J. A., Johnson, K. A., Mackey, S. C., Darnall, B. D.
2017
- **Investigating the BOLD Spectral Power of the Intrinsic Connectivity Networks in Fibromyalgia Patients: A Resting-state fMRI Study**
Jarrahi, B., Martucci, K. T., Nilakantan, A. S., Mackey, S., IEEE
IEEE.2017: 497-500
- **Pain catastrophizing, perceived injustice, and pain intensity impair life satisfaction through differential patterns of physical and psychological disruption** *Scand J Pain*
Sturgeon, J., Ziadni, M., Zina, T., Darnall, B., Mackey, S.
2017: 390-96
- **Thermal Stimulation Alters Cervical Spinal Cord Functional Connectivity in Humans.** *Neuroscience*
Weber, K. A., Sentsis, A. I., Bernadel-Huey, O. N., Chen, Y., Wang, X., Parrish, T. B., Mackey, S.
2017
- **First, Do No Harm - Marshaling clinician leadership to counter the opioid epidemic** *National Academy of Medicine - Special Publication*
Adams, S., Blanco, C., Chaudhry, H., Chen, H., Chou, R., Christopher, M., Harris, P., Levin, S., Mackey, S., McCance-Katz, E., Moore, P., Rathmell, J., Rieder, et al
2017
- **Pain Catastrophizing Mediates the Relationship Between Trait Happiness and Depressive Symptoms in Individuals with Current Pain.** *J Appl Behav Res*
Tran, P., Sturgeon, J., Nilakantan, A., Foote, A., Mackey, S., Johnson, K.
2017
- **Psychological features and their relationship to movement based subgroups in people with low back pain.** *Archives of Physical Medicine and Rehabilitation*
Karayannis, N., Mackey, S.
2017
- **Predictors of Daily Pain Medication Use in Individuals with Recurrent Back Pain.** *International Journal of Behavioral Medicine*
Sturgeon, J., Hah, J., Sharifzadeh, Y., Middleton, S. K., Rico, T., Johnson, K., Mackey, S.
2017
- **Effect of Perioperative Gabapentin on Postoperative Pain Resolution and Opioid Cessation in a Mixed Surgical Cohort: A Randomized Clinical Trial.** *JAMA surgery*

- Hah, J., Mackey, S. C., Schmidt, P., McCue, R., Humphreys, K., Trafton, J., Efron, B., Clay, D., Sharifzadeh, Y., Ruchelli, G., Goodman, S., Huddleston, J., Maloney, et al
2017
- **Brain signature and functional impact of centralized pain: a multidisciplinary approach to the study of chronic pelvic pain (MAPP) network study.** *Pain*, October 2017, 158 (2017) 1979-1991.
Kutch, J., Ichesco, E., Hampson, J., Labus, J., Farmer, M., Martucci, K., Ness, T., Deutsch, G., Apkarian, A., Mackey, S., Klumpp, D., Schaeffer, A., Rodriguez, et al
2017
 - **Thermal Stimulation alters Cervical Spinal Cord Functional Connectivity in Humans.** *Neuroscience*
Weber, K., Parrish, T., Bernadel-Huey, O., Sentis, A., Wang, X., Mackey, S.
2017
 - **A case-crossover study of urologic chronic pelvic pain syndrome flare triggers in the MAPP Research Network.** *J Urology*
Sutcliffe, S., Jemielita, T., Lai, H. H., Andriole, G. L., Bradley, C. S., Clemens, J. Q., Gallop, R., Hooton, T. M., Kreder, K. J., Krieger, J. N., Kusek, J. W., Labus, J., Lucia, et al
2017
 - **Factors associated with prescription opioid misuse in a cross-sectional cohort of patients with chronic non-cancer pain** *JOURNAL OF PAIN RESEARCH*
Hah, J. M., Sturgeon, J. A., Zocca, J., Sharifzadeh, Y., Mackey, S. C.
2017; 10: 979-987
 - **Brain white matter changes associated with urological chronic pelvic pain syndrome: multisite neuroimaging from a MAPP case-control study** *PAIN*
Huang, L., Kutch, J. J., Ellingson, B. M., Martucci, K. T., Harris, R. E., Clauw, D. J., Mackey, S., Mayer, E. A., Schaeffer, A. J., Apkarian, A. V., Farmer, M. A.
2016; 157 (12): 2782-2791
 - **Defective Signaling in the JAK-STAT Pathway Tracks with Chronic Inflammation and Cardiovascular Risk in Aging Humans.** *Cell systems*
Shen-Orr, S., Furman, D., Kidd, B. A., Hadad, F., Lovelace, P., Huang, Y., Rosenberg-Hasson, Y., Mackey, S., Grisar, F. A., Pickman, Y., Maecker, H. T., Chien, Y., Dekker, et al
2016; 3 (4): 374-384 e4
 - **United States National Pain Strategy for Population Research: Concepts, Definitions, and Pilot Data** *JOURNAL OF PAIN*
Von Korff, M., Scher, A. I., Helmick, C., Carter-Pokras, O., Dodick, D. W., Goulet, J., Hamill-Ruth, R., LeResche, L., Porter, L., Tait, R., Terman, G., Veasley, C., Mackey, et al
2016; 17 (10): 1068-1080
 - **Perturbed connectivity of the amygdala and its subregions with the central executive and default mode networks in chronic pain.** *Pain*
Jiang, Y., Oathes, D., Hush, J., Darnall, B., Charvat, M., Mackey, S., Etkin, A.
2016; 157 (9): 1970-1978
 - **Incidence of and Risk Factors for Chronic Opioid Use Among Opioid-Naive Patients in the Postoperative Period.** *JAMA internal medicine*
Sun, E. C., Darnall, B. D., Baker, L. C., Mackey, S.
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