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University of Alabama at Birmingham
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EMPLOYMENT

Current: Associate Professor of Psychology, University of Alabama at Birmingham
Associate Professor (by courtesy), Division of Clinical Immunology and Rheumatology
Associate Professor (by courtesy), Department of Anesthesiology
Director of the Neuroinflammation, Pain and Fatigue Lab at UAB

Past: Instructor, Stanford University School of Medicine (2008 – 2010).
Assistant Professor, Stanford University School of Medicine (2010 – 2014).
Director, Adult and Pediatric Pain Lab at Stanford.

EDUCATION

(2006 - 2008) Postdoctoral Research Fellow at Stanford University School of Medicine.
Concentration: Psychoneuropharmacology of Chronic Pain.
Advisor: Sean Mackey, MD, PhD – Department of Anesthesia

(2003 - 2006) Postdoctoral Research Assistant at Arizona State University.
Concentration: Psychophysiology and Pharmacology of Chronic Pain.
Advisor: Alex Zautra, PhD – Department of Psychology.

(1998 - 2003) Ph.D., Experimental Psychology at University of Tennessee, Knoxville.
Concentration: Health Psychology.
Advisers: Kathleen Lawler, PhD and Mike Nash, PhD.

Dissertation Topic: Effects of Naltrexone on Repressive Coping and Disclosure of
Emotional Material in Normotensives and Hypertensives:
A Test of the Opioid-Peptide Theory of Repression/Hypertension.

(1994 -1998) B.A., Psychology, Maryville College.

PROFESSIONAL PUBLICATIONS

Peer-Reviewed Articles (51 total)

1. Schertzinger M, Wesson-Sides K, Parkitny L, **Younger J**. Daily fluctuations of progesterone and testosterone are associated with fibromyalgia pain severity. *J Pain*, in press.
2. Lin JC, Mueller C, **Younger J**. Thermal stimulation changes diffusivity of the spinothalamic tract. *Spine*, epub ahead of print.
3. Montoya JG, Holmes TH, Anderson JN, Maecker HT, Rosenberg-Hasson Y, Valencia IJ, Chu L, **Younger J**, Tato CM, Davis MM. (2017). Cytokine signature associated with disease severity in chronic fatigue syndrome patients. *Proc Natl Acad Sci* 22, E7150-E7158.
4. Merlin JS, Westfall AO, Heath SL, Goodin BR, Stewart JC, Sorge RE, **Younger J**. IL-1beta levels are associated with chronic multisite pain in people living with HIV. *J Acquir Immune Def Syndr*, in press.
5. Weinstock LB, Myers TL, Walters AS, Schwartz OA, **Younger J**, Chopra PJ, Guarino AH. (2016) Identification and treatment of new inflammatory triggers for complex regional pain syndrome: small intestinal bacterial overgrowth and obstructive sleep apnea. *A A Case Rep* 9: 272-6.
6. **Younger J**, Kapphan K, Brennan K, Sullivan S, Stefanick M. (2016) Association of leptin with body pain in women. *J Women's Health* 25: 752-60.
7. Lin J, Chu L, Stringer EA, Baker K, Sayyid Z, Sun J, Campbell K, **Younger J**. (2016) One month of morphine decreases gray matter volume in the right amygdala of individuals with low back pain: Confirmation of previously reported magnetic resonance imaging results. *Pain Med* 8: 1497-504.
8. Dixon EA, Benham G, Sturgeon JA, Mackey S, Johnson KA, **Younger J**. (2016) Development of the Sensory Hypersensitivity Scale (SHS): a self-report tool for assessing sensitivity to sensory stimuli. *J Behav Med* 3: 537-50.
9. Carroll I, Hah J, Barelka P, Wang C, Wang B, Gillepsie M, McCue R, **Younger J**, Trafton J, Humphreys K, Goodman S, Dirbas F, Mackey S. (2015) Pain duration and resolution following surgery: An inception cohort study. *Pain Med* 16: 2386-96.
10. Chu L, Lin J, Clemenson A, Encisco E, Sun J, Hoang D, Alva H, Erlendson M, Clark J, **Younger J**. (2015) Acute opioid withdrawal is associated with increase neural activity in reward-processing centers in healthy men: A functional magnetic resonance imaging study. *Drug Alcohol Depend* 153: 314-22.
11. **Younger J**. (2015) Being female is a risk factor for chronic pain. Are inflammatory processes to blame? *Brain Behavior Immunity* 46: 33-4.
12. Parkitny L, Middleton S, Baker K, **Younger J**. (2015) Evidence for abnormal cytokine expression in Gulf War Illness: A preliminary analysis of daily immune monitoring data. *BMC Immunol* 16: 57.

13. Deshpande S, Nandola N, Rivera D, **Younger J**. (2014) Optimized treatment of fibromyalgia using system identification and hybrid model predictive control. *Control Engineering Practice*, 1: 161-173.
14. Deshpande S, Rivera D, **Younger J**, Nandola N. (2014) A control systems engineering approach for adaptive behavioral interventions: illustrations with a fibromyalgia intervention. *Translational Behavioral Medicine* 4: 275-89.
15. **Younger J**, Parkitny L, McLain D. The use of low dose naltrexone (LDN) as a novel anti-inflammatory treatment for chronic pain. (2014). *Clinical Rheumatology* 33: 451-9.
16. Hah J, Mackey S, Barelka P, Wang C, Wang B, Gillespie M, McCue R, **Younger J**, Trafton J, Humphreys K, Goodman S, Dirbas F, Schmidt P, Carroll I. (2014). Self-loathing aspects of depression reduce postoperative opioid cessation rate. *Pain Medicine* 15: 954-64.
17. Nilakantan A, **Younger J**, Arthur A, Mackey S (2014). Preoccupation in an early-romantic relationship predicts experimental pain relief. *Pain Medicine* 15: 947-53.
18. Stringer E, Baker K, Carroll I, Montoya J, Maecker H, **Younger J** (2013). Daily cytokine fluctuations, driven by leptin, are associated with fatigue severity in chronic fatigue syndrome: Evidence of inflammatory pathology. *Journal of Translational Medicine*, 11: 93.
19. Barad M, Ueno T, **Younger J**, Chatterjee N, Mackey S. Complex regional pain syndrome is associated with structural abnormalities in pain-related regions of the human brain. (2014) *Journal of Pain* 15: 197-203.
20. Martin L, Borckardt J, Reeves S, Frohman H, Beam W, Nahas Z, Johnson K, **Younger J**, et al. (2013). A pilot functional MRI study of the effects of prefrontal rTMS on pain perception. *Pain Medicine*.
21. **Younger J**, Noor N, McCue R, Mackey S (2013). Low-dose naltrexone for the treatment of fibromyalgia: A small, randomized trial on daily pain. *Arthritis & Rheumatism*, 65, 529-38.
22. Carroll I, Hah J, Mackey S, Ottestad E, Kong J, Lahidji S, Tawfik V, **Younger J**, Curtin C. (2013). Perioperative interventions to reduce chronic postsurgical pain. *Journal of Reconstructive Microsurgery*. *Epub ahead of print*.
23. **Younger J**, Gandhi V, Hubbard E, Mackey S (2012). Development of the Stanford Expectations of Treatment Scale (SETS): A tool for measuring patient outcome expectancy in clinical trials. *Clinical Trials*, 9, 767-76.
24. Ung H, Brown J, Johnson K, **Younger J**, Hush K, Mackey S (2012). Multivariate classification of structural MRI data detects chronic low back pain. *Cerebral Cortex*. *Epub ahead of print*.
25. Carroll I, Barelka P, Wang C, Wang B, Gillespie M, McCue R, **Younger J**, et al (2012). A pilot cohort study of the determinants of longitudinal opioid use following surgery. *Anesthesia and Analgesia*, 115, 694-702.

26. Brown J, Chatterjee N, **Younger J**, Mackey S (2011). Towards a physiology-based measure of pain: Patterns of human brain activity distinguish painful from non-painful thermal stimulation. *PLoS ONE*; 6:e24124.
27. Shimo K, Ueno T, **Younger J**, Nishihara M, Inoue S, Ikemoto T, Taniguchi S, Ushida T (2011). Visualization of painful experiences believed to trigger the activation of affective and emotional brain regions in subjects with low back pain. *PLoS ONE*;6: e26681.
28. **Younger J**, Chu L, D'Arby N, Trott K, Jastrzab L, Mackey S (2011). Prescription opioid analgesics rapidly change the human brain. *Pain*. 152:1803-10.
29. Deshpande, S., N. Nandola, D.E. Rivera, and **J. Younger** (2011). A control engineering approach to designing an optimized treatment plan for fibromyalgia. *Proceedings of the 2011 American Control Conference*. 29, 4798-4803.
30. **Younger J**, Aron A, Parke S, Mackey S (2010). Viewing pictures of a romantic partner reduces experimental pain: Involvement of neural reward systems. *PLoS ONE*;13:e13390.
31. **Younger J**, Shen Y, Goddard G, Mackey S (2010). Chronic myofascial temporomandibular pain is associated with gray matter abnormalities in the cerebral cortex, limbic system, and brainstem. *Pain*. 149, 222-228.
32. **Younger J**, Mackey S (2009). Fibromyalgia symptoms are reduced by low-dose naltrexone: a pilot study. *Pain Medicine*. 10, 663-672.
(Faculty of 1000 Medicine factor 3.0 (recommended): Kenneth Candido: Faculty of 1000 Medicine, 22 Oct 2009 <http://www.f1000medicine.com/article/id/1166387/evaluation>).
33. Carroll I, **Younger J**, Mackey S (2010). Pain quality predicts lidocaine analgesia among patients with suspected neuropathic pain. *Pain Medicine*. 11, 617-621.
34. Shen, Y., **Younger J**, Goddard, G., Mackey, S (2009). Randomized clinical trial of acupuncture for myofascial pain of the jaw muscles. *Journal of Orofacial Pain*. 23, 353-359.
35. **Younger J**, Zautra A, Cummins E (2009). Effects of naltrexone on pain, mood, and somatic complaints in Fibromyalgia: No evidence for mu-opioid pathophysiology. *PLoS ONE*, 4, e5180.
36. **Younger J**, Barelka P, Carroll I, Kaplan K, Chu L, Prasad R, Gaeta R, Mackey S. (2008). Reduced cold pain tolerance in chronic pain patients following opioid detoxification. *Pain Medicine*, 9, 1158-1163.
37. **Younger J**, Finan P, Zautra A, Reich J, Davis M (2008). Personal mastery predicts pain, stress, fatigue, and blood pressure in adults with rheumatoid arthritis. *Psychology and Health*, 23, 515-535.
38. Davis M, Zautra A, **Younger J**, Motivala S, Attrep J, Irwin M. (2008). Chronic stress and regulation of cellular markers of inflammation in rheumatoid arthritis: Implications for fatigue. *Brain, Behavior, and Immunity*, 22, 24-32.

39. **Younger J**, Rossetti G, Borckardt J, Smith A, Tasso A, Nash M (2007). Hypnotizability and somatic complaints: A gender-specific phenomenon. *International Journal for Clinical and Experimental Hypnosis*, 55, 1, 1-13.
40. **Younger J**, Lawler-Row K, Moe K, Kratz A, Keenum A (2006). Effects of naltrexone on repressive coping and disclosure of emotional material: A test of the opioid-peptide theory of repression and hypertension. *Psychosomatic Medicine*, 68, 5, 734-741.
41. Lawler-Row K, **Younger J**, Piferi R, Jones W (2006). The role of adult attachment style in forgiveness following an interpersonal offense. *Journal of Counseling and Development*, 84, 493-502.
42. Lawler K, **Younger J**, Piferi R, Jobe R, Edmondson K, Jones W (2005). The unique effects of forgiveness on health: An exploration of pathways. *Journal of Behavioral Medicine*, 28, 157-167.
43. Winkel J, **Younger J**, Tomcik N, Borckardt J, Nash R (2005). Anatomy of a hypnotic response: Self-report estimates, actual behavior, and physiological response to the hypnotic suggestion for arm rigidity. *International Journal for Clinical and Experimental Hypnosis*, 54, 186-205.
44. **Younger J**, Winkel J, Kemmerer D, Nash M (2005). The Harvard Group Scale of Hypnotic Susceptibility: Accuracy of self-report and the memory for items. *International Journal for Clinical and Experimental Hypnosis*, 53, 306-320.
45. Edmondson K, Lawler K, Jobe R, **Younger J**, Piferi R, Jones W (2005). Spirituality predicts health and cardiovascular responses to stress in young adult women. *Journal of Religion and Health*, 44, 161-171.
46. **Younger J**, Piferi R, Jobe R, Lawler K (2004). Dimensions of forgiveness: The views of laypersons. *Journal of Social and Personal Relationships*, 21, 837-855.
47. Borckardt J, **Younger J**, Winkel J, Nash M, Shaw D (2004). The use of the computer-assisted cognitive imagery system in the management of pain. *Pain Research and Management*, 9, 157-162.
48. Kreusi M, Borckardt J, **Younger J**, Shaw D, Nash M (2004). Perceived links between physical problems and stress may be clouded by dissociative processes. *Journal of Trauma and Dissociation*, 5, 4, 121-127.
49. Lawler K, **Younger J**, Piferi R, Billington E, Jobe R, Edmondson K, Jones W (2003). A change of heart: Cardiovascular correlates of forgiveness in response to interpersonal conflict. *Journal of Behavioral Medicine*, 26, 5, 373-393.
50. Lawler K, **Younger J** (2002). Theobiology: An analysis of spirituality, cardiovascular responses, stress, mood, and physical health. *Journal of Religion and Health*, 41, 347-62.

51. Piferi R, Kline K, **Younger J**, Lawler K (2000). An alternative approach for achieving cardiovascular baseline: Viewing an aquatic video. *International Journal of Psychophysiology*, 37, 207-217.

Review Articles: (4 total)

1. **Younger J**, Diaz M (in press). What can neuroimaging tell us about the nature of hypnosis and hypnotizability? *New Jersey Psychologist*.
2. **Younger J**, McCue R, Mackey S (2009). Pain outcomes: A brief review of instruments and techniques. *Current Pain and Headache Reports*, 13, 39-43.
3. **Younger J**, Mackey S (2007). Evaluating outcomes in pain management. *Current Reviews in Clinical Anesthesia*, 11, 28. 127-136.
4. Brown J, **Younger J**, Madan A, Borckardt J (2013). Pain in chronic medical illness. *Pain Research and Treatment*.

Book Chapters: (4 total)

1. **Younger J**, Watcha D, Mackey S (2008). Pain. In Yawei Zhang (Ed.). *The Encyclopedia of Global Health*. Sage. 3, 1320-1322.
2. Benham G. **Younger J** (2008). Soma, psych, and hypnosis. In Nash (Ed.) *The Oxford Handbook of Hypnosis: Theory, Research, and Practice*. Oxford: UK. 393-423.
3. **Younger J**, Mackey S (2007). The use of neuroimaging tools in investigating neuropathic pain. In Scott Chambers (Ed.). *US Neurological Diseases, Issue II*. 1-4.
4. **Younger J**, Zautra A (2007). Arthritis – Psychological. *The Encyclopedia of Stress (2nd edition)*. George Fick (Ed.). Academic Press. 261-264.

Published Abstracts: (7 total)

1. Foti M, Baker K, Jastrzab E, Stringer E, Mackey S, **Younger J** (2013). Improvements in cognition following opioid detoxification program. *Journal of Pain 14*: S76.
2. Dos Santos P, Deshpande S, Rivera D, Azevedo-Perdicoulis T, Ramos J, **Younger J**. Identification of affine linear parameter varying models for adaptive interventions in fibromyalgia treatment. *Proceedings of the American Control Conference 31*: 1976-1981.
3. Muramoto D, **Younger J**, Ueno T, Kirschen M, Mackey S (2007). Working memory load attenuates moderate pain, but not high pain, in healthy individuals. *The Journal of Pain*, 8, S18.
4. Crowell A, **Younger J**, Lobato R, Kaplan K, Carroll I, Mackey S, Gaeta R (2007). Demographic and psychosocial predictors of disability due to pain. *The Journal of Pain*, 8, S76.

5. Lucca A, **Younger J**, Lawrence J, Lutomski K, MacLeod S, Hoeft F, Ueno T, Glover G, Gabrieli J, DeCharms C, Mackey S (2007). Modulation of brain networks via real-time fMRI feedback training. *The Journal of Pain*, 8, S15.
6. Mackey A, Crowell A, Carroll I, **Younger J**, Zulauf M, Kaplan K, Gaeta R, Mackey S (2007). Depressed Mood Predicts Analgesic Response to Intravenous Lidocaine. *The Journal of Pain*, 8, S36.
7. Finan P, **Younger J**, Zautra A, Reich , & Davis M (2007) Personal control in chronic pain sufferers during acute interpersonal stress. *Annual Meeting of the American Psychosomatic Society*, Budapest, Hungary.

RESEARCH SUPPORT

Active:

Daily Immune Monitoring in Chronic Fatigue Syndrome

R01

NIH – NIAID

Role: PI

Date Range: 7/2015 – 6/2020

\$2,318,040

Determining Immune Drivers of Gulf War Illness Using a Novel Daily Sampling Approach (GW110044) Department of Defense – Congressionally Directed Medical Research Programs

Role: PI

Dates of Award: 1/2014 – 12/2018

\$900,642

Treating Gulf War Illness with Novel Anti-Inflammatories: A Screening of Botanical Microglia Modulators

Department of Defense – CDMRP

Role: PI

Date Range: 10/2015 – 12/2018

\$710,572

ME/CFS Ramsey Award

MRS-based brain thermometry for ME/CFS

Role: PI

Date Range: 01/01/17 – 07/01/18

\$30,000

Functional Diffusion Tensor Imaging (fDTI): Measuring Neural Activity in the Spinal Cord.

UAB-CNC

Role: PI

Date Range 8/2015-12/2016

\$10,000

Assessing brain inflammation in traumatic brain injury
Functional Neurorecovery Center
Role: PI
Date Range: 08/01/17 – 08/01/18
\$30,000

A Multimodal Evaluation of the Comparative Efficacy of Yoga Versus a Patient-Centered Support Group for Treating Pain in Gulf War Illness.
Department of Defense – CDMRP
PI: Peter Bayley
Role: Co-I

Completed:

Rheumatology Research Foundation
Non-invasive measurement of brain inflammation in rheumatoid arthritis.
Role: PI
Date Range: 05/01/16 – 12/30/17
\$75,000

Moral Elevation, Oxytocin, and Pain
Fetzer Foundation
Role: PI
Dates of Award: 1/2014 – 5/2016
\$100,000

NIH (NCCAM) P01 AT00651
Stanford CAM Center for Chronic Back Pain
Role: Co-I
Dates of Award: 4/2013 – 3/2016
\$8,927,826

NIH (NIDA) R00 DA023609
Mechanisms of Opioid-Induced Hyperalgesia in Pain Patients.
Role: PI
Dates of Award: 7/2010 – 8/2014
\$925,642

Private Gift
Immune-Based Diagnostic Tests for Fibromyalgia
Role: PI
Dates of Award: N/A
\$20,000

Neuroimmunomodulatory pharmacotherapy in pain: therapy and outcomes
International Association for the Study of Pain – International Trainee Fellowship
Role: Mentor, PI: Luke Parkitny
Dates of Award: 1//2014 – 12//2014
\$50,000

Stanford – Immune, Transplantation and Infection Institute
Identifying inflammatory drivers of chronic fatigue via daily immune and symptom sampling.
Role: PI
Dates of Award: N/A
\$50,000

Private Gift
Microglia Modulators for Chronic Multisymptom Illnesses
Dates of Award: N/A
\$150,000

Stanford Anesthesia Neuro-Innovation Matching Funds
Immune Drivers of Hyperalgesia.
Role: PI
Dates of Award: N/A
\$50,000

NIH (NHLBI) Women’s Health Initiative Extension 2010 - 2015 – HHSN268201100003C
PI: Marcia Stefanick
Role: Investigator
Dates of Award: 10/2014 – 9/2015

Sex/Gender-Specific Brain Risks for Prescription Opioids in Chronic Low Back Pain
PI: Sean Mackey
Role: Co-I
Dates of Award: 11/13 – 11/15
\$100,000

Diversity Training Supplement
Scholar: Beth Darnall, PhD
Role: Mentor
Dates of Award: 11/13 – 11/15
\$221,000

Stanford Institute for Neuro-Innovation and Translational Neurosciences
Peripheral Biomarkers of Opioid-Induced Hyperalgesia, Cognitive Dysfunction, and Drug Craving.
Role: PI
Dates of Award: N/A

Private Gift
Microglia Modulators for Chronic Multisymptom Illnesses.
Role: PI.

CDA-2-013-09F
Psychophysiology of Prolonged Exposure for PTSD With and Without Yohimbine.
PI: Peter Tuerk, Role: Consultant
NIH Roadmap: Dynamical Systems to improving behavioral interventions (R21).
PI: Linda Collins, Daniel Rivera
Role: Consultant.

K99 DA023609.

Mechanisms of Opioid-Induced Hyperalgesia in Pain Patients.

Role: PI.

NIH Clinical Research Loan Repayment Grant.

Role: PI.

Competitive Renewal (2006 – 2007).

Competitive Renewal (2007 – 2008).

Competitive Renewal (2008 – 2009).

Private gift for Microglia Modulators in Gulf War Illness.

Role: PI.

Arthritis Foundation Postdoctoral Research Grant.

Role: PI.

Low Dose Naltrexone for the treatment of Fibromyalgia.

American Fibromyalgia Syndrome Association.

Role: PI.

Private gift for Low Dose Naltrexone in Primary Fibromyalgia.

Role: PI.

Science Alliance Dissertation Grant.

Role : Student Investigator.

Graduate Dissertation Support Grant.(2003). Role: Investigator

PROFESSIONAL AWARDS

(2011) Research Award – American Academy of Pain Medicine.

(2010) Research Award – Stanford, Department of Anesthesia.

(2008) International Association for the Study of Pain Travel Award.

(2007) American Pain Society Travel Award.

(2002) Outstanding Graduate Research Award. University of Tennessee Department of Psychology.

(2002) Society for Clinical and Experimental Hypnosis Scholarship, SCEH Annual Meeting.

(2000) Society for Clinical and Experimental Hypnosis Sherry K. and Harold B. Crasilneck
Award for the best first paper by a young scientist. SCEH Annual Meeting.

PROFESSIONAL AFFILIATIONS

American Pain Society.

Organization for Human Brain Mapping.

International Association for the Study of Pain.

American Psychological Association.

POSTDOCTORAL ADVISEES

Joanne Lin (University of Auckland, NZ), 2014 – present.

Luke Parkitny (University of Adelaide, AU), 2014 – present.

Elizabeth Ann Stringer, PhD (Vanderbilt, USA), June 1, 2011 – June 1, 2013.

GRADUATE STUDENTS

Kelsey Campbell (University of Oklahoma) 2014 - present

Christina Mueller (University of Southampton, UK) 2015 - present

PRESENTATIONS

Individual predictors of physical function and pain interference in chronic pain syndromes.

Development of the Sensory Hypersensitivity Scale (SHS): A self-report tool for assessing sensitivity to sensory stimuli.

A potential anti-inflammatory effect of low-dose naltrexone in fibromyalgia.

Exploring the sensory hypersensitivity scale with quantitative sensory testing.

Baker K, Foti M, Jastrzab L, Stringer E, Mackey S, Younger J. Immediate and lasting improvements in depression following rapid opioid detoxification. Poster accepted for American Pain Society 2013 meeting.

Foti M, Baker J, Jastrzab L, Stringer E, Mackey S, Younger J. Improvements in cognition following an opioid detoxification program. Poster accepted for American Pain Society 2013 meeting.

- Stringer E, Baker K, Carroll I, Younger J. Daily cytokine fluctuations distinguish high pain from low pain days in women with fibromyalgia. Poster accepted for American Pain Society 2013 meeting.
- Stringer E, Jastrzab L, Younger J. Resting state BOLD signal periodicity in low-back pain patient's hippocampus. Poster accepted for American Pain Society 2012 meeting.
- Younger J, Stringer EA, Jastrzab L. (2011). Daily morphine use affects neural pain processing and resting state connectivity in the human brain. NIDA Miniconvention – Frontiers in Addiction Research, Washington DC.
- Younger J, Chu L, D'Arcy N, Trott K, Mackey S (2010). Prescription opioid analgesics rapidly change the human brain. Poster to be presented at the International Association for the Study of Pain's 13th World Congress in Montreal, Canada.
- Younger J, Aron A, Parke S, Gandhi V, Mackey S (2009). The Analgesic Effects of Romantic Love: A Neuroimaging Study. Poster presented at the 28th Annual Meeting of the American Pain Society (APS) in San Diego, CA.
- Younger J, Mackey S (2009). Low-dose Naltrexone Reduces the Primary Symptoms of Fibromyalgia. Poster presented at the 28th Annual Meeting of the American Pain Society (APS) in San Diego, CA.
- Younger J, Parke S, Peter B, Mackey S (2008). Decrease of cold pain tolerance following opioid detoxification. Poster presented at the 27th Annual Meeting of the American Pain Society (APS) in Tampa, Florida.
- Maeda U, Carroll I, Mackey A, Younger J, Mackey S (2008). *Pain quality predicts response to sodium channel blockade with lidocaine*. Poster presented at the 27th Annual Meeting of the American Pain Society (APS) in Tampa, Florida.
- Lawrence J, Lucca A, Younger J, Ueno T, Lutomski K, MacLeod S, Hoeft F, Glover G, Gaeta R, deCharms C, Mackey S. (2007). *Effective connectivity changes associated with learned control over neural activity: A Granger Causality study*. Poster presented at the Organization for Human Brain Mapping (OHBM), 13th Annual meeting, Chicago, June 10-14, 2007.
- Barelka P, Younger J, Carroll I, Chu L, Yu S, Watcha D, Mackey S (2007). *Characterization of pain tolerance during acute opioid reduction in chronic pain patients*. Poster presented at the Western Anesthesia Residents Conference at UC Davis.
- Finan P, Younger J, Zautra A, Reich J, Davis M (2007). *Personal Control in Chronic Pain Sufferers During Acute Interpersonal Stress*. American Psychosomatic Society.
- Davis M, Zautra A, Irwin M, Motivala S, Younger J (2007). *Chronic Stress and Regulation of the Inflammatory Response in Rheumatoid Arthritis: Implications for Fatigue*. American Psychosomatic Society.

- Benham G, Younger J (2005). *Hypnosis and the Brain*. Invited Symposium: Advances in Hypnosis Theory and Research. Paper presented at the Society for Clinical and Experimental Hypnosis, Charleston, SC.
- Younger J, Lawler K, Keenum A (2004). *Are Endogenous Opioids the Mechanism for Psychological Repression? Effects of Naltrexone on Repressive Coping and Disclosure in Normotensives and Hypertensives*. Paper presented at the Society of Behavioral Medicine's 25th Annual Meeting, Baltimore, MA.
- Moore M, Tasso A, Younger J, Nash M (2002). *Verifying the Reliability and Validity of a Scale to Assess Attitudes, Expectations, and Motivation Regarding Hypnosis*. Paper presented at the Society for Clinical and Experimental Hypnosis, Boston, MA.
- Winkel J, Kemmerer D, Younger J, Nash M (2002). *"I Don't Remember": What Happens When Subjects Do Not Remember the Suggestions?* Paper presented at the Society for Clinical and Experimental Hypnosis, Boston, MA.
- Younger J, Nash M (2002). *Surrounding Participant Activity, Distance from Hypnotist and Feelings of Being Observed as Potential Suggestibility Confounds in Group Hypnotic Sessions*. Paper presented at the Society for Clinical and Experimental Hypnosis, Boston, MA.
- Lawler K, Younger J, Piferi R, Jones W (2002). *Forgiveness and Health: The Costs of Not Forgiving*. Paper presented at the Society of Behavioral Medicine, Washington, D.C.
- Lawler K, Younger J, Piferi R, Edmondson K, Jobe R, Jones W (2002). *Forgiveness in Adults: Its Relationship to Stress, Relationship Competence and Health*. Poster presented at the Society of Behavioral Medicine, Washington, D. C.
- Moore M, Younger J, Tasso A (2001). *The Development of a Scale to Assess Attitudes, Expectations, and Motivation Regarding Hypnosis*. Paper presented at the Society for Clinical and Experimental Hypnosis annual conference, San Antonio, TX.
- Borckardt J, Younger J, Willis L, Nash M (2001). *Physiological, Psychosomatic, Imagery, and Personality Correlates of Psychopathology and Hypnotic Susceptibility*. Paper presented at the Society for Clinical and Experimental Hypnosis annual conference, San Antonio, TX.
- Jobe R, Edmondson K, Piferi R, Younger J, Lawler K (2001). *The Physiology of Betrayal: A Focus on Social Evaluation Concern*. Poster presented at the annual meeting of the American Psychological Association, San Francisco, CA.
- Edmondson K, Jobe R, Younger J, Piferi R, Lawler K (2001). *Personality and Cardiovascular Reactivity*. Poster presented at the annual meeting of the American Psychological Association, San Francisco, CA.
- Lawler K, Younger J, Piferi R, Edmondson K, Jobe B, Jones W (2001). *Forgiveness in Adults: Its Relationship to Stress, Relationship Competence, and Health*. Poster presented at the annual meeting of the Society of Behavioral Medicine, Washington, D.C.

- Lawler K, Younger J, Piferi R, Jones W (2001). *Forgiveness and Health: The Costs of Not Forgiving*. Paper presented at the annual meeting of the Society of Behavioral Medicine, Washington, D.C.
- Younger J, Borckardt J (2000). *Autonomic Response to Imagery: Hypnotic Susceptibility and Psychosomatic Illness Correlates*. Paper presented at the Society for Clinical & Experimental Hypnosis annual conference, Seattle, Washington.
- Tasso A, Smith N, Moore M, Adams B, Younger J, Borckardt J, Nash M (2000). *Countering Within the Hypnotic Relationship*. Paper presented at the Society for Clinical & Experimental Hypnosis annual conference, Seattle, Washington.
- Tasso A, Moore M, Younger J, King B, Adams B, Borckardt J, Nash M (2000). *The Hypnotic Relationship: An Empirical Examination of Countering*. Paper presented at the 15th International Congress of Hypnosis, Munich, Germany.
- Moore M, Borckardt J, Younger J, King B, Tasso A, Smith N, Adams B, Nash M (2000). *Hypnotizability: Attention, Absorption, Dissociation, and Imagery Correlates*. Paper presented at the Society for Clinical & Experimental Hypnosis annual conference, Seattle, Washington.
- Moore M, Borckardt J, Younger J, King B, Tasso A, Smith N, Adams B, Nash M (2000). *How Do Measures of Attention, Absorption, Dissociation, and Imagery Help Predict Hypnotizability?* Paper presented at the American Psychological Association annual conference, Washington, DC.
- Lawler K, Younger J, Piferi R, Jones W (2000). *A Physiological Profile of Forgiveness*. Paper presented at the annual meeting of the Society of Behavioral Medicine, Nashville, TN.
- Younger J, Lawler K, Piferi R (2000). *Physiological and Psychological Correlates of Attachment Style and Family Marital Status in Forgiveness Recall Interviews*. Poster presented at the annual meeting of the American Psychosomatic Society, Savannah, GA.
- Lawler K, Younger J, Piferi R, Jones W (2000). *Forgiveness: Physiological and Psychological Correlates*. Poster presented at the annual meeting of the American Psychosomatic Society, Savannah, GA.
- Younger J, Piferi R (2000). *Explanations and Justifications of Forgiveness*. Paper presented at the annual meeting of the South Eastern Psychological Association, New Orleans, LA.

TEACHING

University of Alabama at Birmingham

(2016) Clinical Psychopharmacology

Stanford University, Stanford, CA

- (2014) Psychopharmacology of Abused Drugs
- (2013) Psychopharmacology of Abused Drugs.
- (2011) Researching Strange Things.

University of Tennessee, Knoxville, TN:

- (2001 – 2003) Instructor -- Child Psychology (3 sections).
- (2002) Instructor -- Motivation and Emotion (1 section).
- (2001) Teaching Assistant – Child Psychology (3 sections).
- (2001) Instructor -- Introductory Psychology in Evening School (1 section).
- (2000) Teaching Assistant -- Motivation and Emotion (1 section).
- (2000) Teaching Assistant and Discussion Leader -- Honors Introductory Psychology.

Maryville College, Maryville, TN:

- (2002) Instructor -- Introductory Psychology (2 sections).

Selected Invited Talks:

The role of neuroinflammation in opioid addiction
Talk to NIH-NCATS and U.S. Senate Delegation (2017 – Birmingham, AL)

Use of MRS thermometry to detect neuroinflammation in Rheumatoid Arthritis
CAMBAC (2017 – Birmingham, AL)

Novel screening method for identifying drivers of chronic fatigue syndrome
ME/CFS Initiative (2017 – Stanford, CA)

Most important scientific advances in fibromyalgia
LDN Research Trust (2017 – Portland, OR)

Brain involvement in chronic fatigue.
Alabama Representatives Health and Human Services Subcommittee (2017 – Atlanta)

Increasing community engagement in clinical research.
PCOR (2016 – teleconference)

If not opioids, then what?
IACFS (2016 – Ft Lauderdale)

Top research findings of fibromyalgia in 2016 ME/CFS
IACFS (2016 – Ft Lauderdale)

Pharmaceuticals for chronic fatigue syndrome.
Centers for Disease Controls and Prevention (2016 – teleconference)

Brain imaging for understanding chronic fatigue syndrome.
MPM Capital (2016 – Boston)

Daily home monitoring for improving chronic disease treatment.
PatientsLikeMe (2016 – Cambridge)

Addiction and opioids
Neuroscience Cafe (2016 – Birmingham)

Calming microglia: a future method for treating multiple sclerosis. Invited lecture for Low Dose Naltrexone Conference, February 2016.

The role of neuroinflammation in driving depression.
Mood Disorders Journal Club (November 21) – UAB Psychiatry

When inflammation spread to the brain
ASRD
September 10, 2015

Microglial modulation with naltrexone in the treatment of fibromyalgia. Invited faculty lecture at the College of Clinical Rheumatology, May 1, 2015.

Novel techniques for imaging inflammation in the human brain. Invited lecture for 2015 UAB Comprehensive Neuroscience Center Retreat.

Why brain inflammation may be responsible for chronic pain, fatigue, and depression. Invited lecture at Auburn University, February 20, 2015.

Leptin's role in Neuroinflammation, pain, and fatigue. Invited lecture via webinar for Pandora.org:
www.youtube.com/watch?v=bFwAyrb5p34

Microglia are responsible for pain, fatigue, cognitive decline, and depression. Invited lecture at University of Michigan (Ann Arbor) – October 2014.

Brain changes in the first month of daily opioid therapy. Congress of Clinical Rheumatology, Faculty, Destin, FL; May (2012).

Low-dose naltrexone for the treatment of fibromyalgia. Congress of Clinical Rheumatology, Faculty, Destin, FL; May (2012).

The basics of pain in the brain.

Invited talk to neurobiology class at Skyline College (2011).

Low-dose naltrexone reduced the symptoms of fibromyalgia.

Invited presentation at American Association of Pain Medicine, Palm Springs, CA (2012).

Gender Differences in Emotional Processing.

Invited lecture to Human Biology MED 240 course. (2011).

Chronic Pain in Women.

Invited Talk to Stanford's Annual Women's Health Forum (2011).

Is Love A Drug: Function, Mechanism and Meaning.

Invited Lecture to 'Social and Ethical Issues in The Neurosciences' NBIO101/201 (2011).

Romantic Love Reduces Pain.

Invited Lecture to Students, Faculty, and Community of Maryville College, TN (2010).

Pain Basics and the Pathophysiology of Chronic Pain.

Invited Lecture to Pre-med and psychology students of Maryville College, TN (2010).

Microglia and Pain: New Therapeutic Targets.

Invited Lecture to Stanford Pain Fellows (July 1, 2010).

Prescription opioid analgesics and the brain.

Invited talk to the Stanford Department of Anesthesia – research awards dinner (2010).

Understanding the Pain and Fatigue of Fibromyalgia.

Invited Lecture to the Women's Health Symposium; Stanford, CA (May 5, 2010).

Morphine rapidly changes the human brain.

Invited Lecture to Mind Research Network; Albuquerque, NM (Feb 15th, 2010).

Microglia Modulation in Central Sensitivity Disorders.

Lecture to Pain Medicine Residents and Fellows.

Critiquing Clinical Trials (June 23rd, 2009).

Lecture to Pain Medicine Residents and Fellows.

Sex Differences in Pain (March 2nd, 2009).

Human Biology undergrad, grad, and medical students; Stanford.

Opioid-Induced Hyperalgesia (December 7th, 2008).

Faculty, North American Neuromodulation Society Annual Meeting.

The Analgesic Effects of Love (Dec 4th, 2008).

Invited talk to Psychology Department students and faculty; Stanford.

Measurement of Pain in the Clinical Research Setting (October 31st, 2008).

Lecture to Anesthesia Residents.

Future Directions in Pain Management Research (July 28th, 2008).
Anesthesia Grand Rounds – Stanford University School of Medicine.

Low-Dose Naltrexone for the Treatment of Fibromyalgia (December 10th, 2007).
Talk to pain fellows and residents.

PROFESSIONAL SERVICE

- (2017) Chair of Imaging Subcommittee for NIH-NINDS Common Data Elements Group.
- (2017) Reviewer Neuroimage, Pain, Journal of Pain, PLOS ONE, Annals of Behavioral medicine, Neuropharmacology, Anesthesiology, Fatigue, Pain Medicine, Neuroscience,
- (2016) Grant reviewer for HSF-GEF Patient Oriented Research Awards
- (2015) Doctoral mentor: Kelsey Campbell and Christina Mueller
- (2015) Scientific advisor for HealClick PCORI grant
- (2015) Ad-hoc reviewer for Annals of Behavioral Medicine
- (2015) Doctoral Committee Member for Joseph Griffis
- (2015) Doctoral Committee Member for Hailey Bulls
- (2015) Reviewer for Department of Defense CDMRP Grant Program
- (2014 – present) Reviewer for NIH ME/CFS Special Emphasis Panel
- (2013) Co-Director: Stanford Chronic Fatigue Syndrome Symposium (March 19, 2014)
- (2013) Thesis advisor for Janelle Tang
- (2013) Dissertation committee member for Jason Thompson
- (2012 - 2013) Reviewer for VA Merit Review Gulf War Illness Special Emphasis Panel
- (2012) Member – Editorial Board – Pain Medicine.
- (2012) Pre-major advisor at Stanford.
- (2012) Ad-hoc reviewer for Neuropsychopharmacology.
- (2012-2015) Ad-hoc reviewer for Pain Medicine.
- (2012) Ad-hoc reviewer for Clinical Psychiatry.
- (2011-2015) Ad-hoc reviewer for Pain.
- (2011-2015) Ad-hoc reviewer for Brain, Behavior and Immunity.

- (2011) Ad-hoc reviewer for Psychosomatic Medicine.
- (2011) Ad-hoc reviewer for Physiology & Behavior.
- (2011) Ad-hoc reviewer for Pain Research and Treatment.
- (2011) Member of Women's Health Strategic Planning Group at Stanford.
- (2011) Ad-hoc reviewer for Journal of the American Pharmacists Association.
- (2010) Editorial Board for Frontiers in Neuropsychiatric Imaging and Stimulation.
- (2010) Ad-hoc reviewer for Experimental Neurology.
- (2010) Grand Judge – International Science and Engineering Fair, San Jose, CA.
- (2009) Grant reviewer for DoD Congressionally Directed Medical Research Programs.
- (2009) Grant reviewer for German Funding Initiative on Musculoskeletal Diseases.
- (2009) Ad-hoc reviewer for the Journal of Pain.
- (2009) Ad-hoc reviewer for Journal of Pain Research.
- (2009) Ad-hoc reviewer for Gender Medicine.
- (1999 – 2009) Directly supervised 142 undergraduate and graduate research assistants.
- (2009) Ad-hoc reviewer for Expert Opinion on Pharmacotherapy.
- (2009 - 2010) Ad-hoc reviewer for The Clinical Journal of Pain.
- (2006) Ad-hoc reviewer for Behavioral Medicine.
- (2005) Ad-Hoc reviewer for Journal of Personality.
- (2004 - 2005) Dissertation Committee Member: Adam McCray.
- (2004) Ad-Hoc reviewer for Cognitive Therapy and Research.
- (2004) Ad-Hoc reviewer for Psychological Bulletin.
- (2003) APA Division 38 (Health Psychology) Student Council Representative.
Research Committee.
- (2001 – 2003) Graduate representative to University Faculty Senate Committee on Teaching.
Subcommittee for Student Assessment of Teaching.
- (2002) Ad-hoc reviewer for the Psi Chi Journal for Undergraduate Research.
- (2000 – 2002) Ad-hoc reviewer for International Journal of Experimental and Clinical Hypnosis.
- (1999 – 2000) Undergraduate academic advisor at University of Tennessee.