

**EMORY UNIVERSITY SCHOOL OF MEDICINE
STANDARD CURRICULUM VITAE**

Revised: 08/10/2022

1. **Name** Daniel Elliott Harper, Ph.D.
2. **Office Address** Woodruff Memorial Building Room 7303
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Atlanta GA 30322
3. **Telephone** 404.727.7789
4. **E-mail Address** deharp2@emory.edu
5. **Citizenship** US Citizen
6. **Current Titles and Affiliations**
 - a. Academic Appointments:
 - i. Primary Appointment:

Assistant Professor of Anesthesiology, Emory University School of Medicine, July 1 2019 – Present
 - ii. Secondary Appointment:

Full Member, Graduate Division of Biological and Biomedical Sciences, Neuroscience Graduate Program, Emory University, 2019-present
7. **Previous Academic and Professional Appointments**
 - a. Research Fellow, Department of Anesthesiology, University of Michigan Medicine, June 1 2014 – June 30 2016
 - b. Research Investigator (faculty), Department of Anesthesiology, University of Michigan Medicine, July 1 2016 – June 30 2019
8. **Education**
 - a. BS in Psychology with Honors, University of North Carolina at Chapel Hill, Chapel Hill, NC, 2001-2007
 - b. MA in Psychology (Behavioral Neuroscience), University of North Carolina at Chapel Hill,

Revised 8/10/22

Chapel Hill, NC, 2007-2011

- c. PhD in Psychology (Behavioral Neuroscience), University of North Carolina at Chapel Hill, Chapel Hill, NC, 2011-2014

9. Postgraduate Training

- a. Postdoctoral Fellowship in Brain Neuroimaging and Clinical Pain Research, University of Michigan, Ann Arbor MI, Supervisors: Daniel J. Clauw, MD, & Richard E. Harris, PhD, 2014-2016

10. Peer Review Activities

a. Grants:

i. National and International

1. Member of National Institute of Dental and Craniofacial Research Special Emphasis Panel ZDE1 MH (15), National Institutes of Health (NIH), 2018
2. Member of Department of Defense Peer Reviewed Medical Research Program (DOD PRMRP) Panel on Peripheral Neuropathy, June-July 2021

b. Manuscripts:

1. Pain (15)
2. Journal of Pain (10)
3. Pain Medicine (6)
4. Journal of Pain Research (4)
5. European Journal of Pain (2)
6. Arthritis and Rheumatism (3)
7. JDR Clinical & Translational Research (2)
8. Scientific Reports (2)
9. Perception
10. Brain Sciences
11. Journal of Dental Research
12. Pain Research and Management
13. Arthritis Care & Research

14. Journal of Psychosomatic Research
15. The Open Dentistry Journal
16. Seminars in Arthritis and Rheumatism
17. Physiology and Behavior

11. Honors and Awards

1. One-year Merit Assistantship from the UNC Graduate School, 2007
2. King Research Excellence Award, 2010
3. Chair's Teaching Commendation for Biological Psychology, 2011
4. Chair's Teaching Commendation for Sensation and Perception 2011, 2012 (2), 2013
5. Psi Chi Award for Outstanding Teaching, 2012
6. Tanner Award for Excellence in Undergraduate Teaching, 2014
7. TMJ Association Travel Award, 2014
8. Woodruff Scholar Early Independence Award, 2018
9. American Pain Society G.F. Gebhart *J Pain* Early Career Investigator Award, 2019

11. Society Memberships

1. International Association for the Study of Pain, 2012 – Present
2. Society for Neuroscience, 2012 – Present
3. American Pain Society, 2014 – 2019
4. United States Association for the Study of Pain, 2020 – Present

12. Formal Teaching

a. Undergraduate Programs:

i. Teaching Assistant

1. Instructor's Graduate Student Assistant, PSYC 220 – Biological Psychology, University of North Carolina, Fall 2009 (115 students)
Contact Hours: 3 hours/week

ii. Teaching Fellow

1. Instructor of Record, PSYC 220 – Biological Psychology, University of North

Carolina, Spring 2010 (34 students), Fall 2010 (43 students), Spring 2011 (44 students)
Contact hours: 3 hours/week

2. Instructor of Record, PSYC 225 – Sensation and Perception, University of North Carolina, Fall 2011 (44 students), Spring 2012 (44 students), Fall 2012 (45 students), Spring 2013 (45 students), Fall 2013 (42 students), Spring 2014 (45 students)
Contact hours: 3 hours/week

iii. Guest Lectures

1. Guest Lecturer, PSYCH 447 – Cognitive Neuroscience of Pain, Lecture on Peripheral Pain Mechanisms, University of Michigan – Ann Arbor, September 15, 2014

2. Guest Lecturer, PSYCH 455 – Health Psychology, Lecture on Pain, Neurocognition, and the Opioid Crisis, University of Michigan – Dearborn, February 14, 2018

b. Graduate Programs:

i. Residency Programs:

1. Anesthesiology Interns, Lecture on Pain Research and Research Collaboration, Emory University, December 15, 2020
Contact hours: 1 hour

ii. Fellowship Programs:

1. Guest Lecturer, Anesthesiology Pain Fellowship, Lecture on How to Bring a Research Idea to Fruition, Emory University, September 4, 2019
Contact hours: 1 hour

2. Moderator, Pain Journal Club for Anesthesiology Pain Fellowship, Emory University, 2022
Contact hours: 4 hours/year

iii. Master's and PhD Programs:

1. Guest Lecturer, Neuroscience Graduate Program IBS 526 – Neuroanatomy and Systems Neuroscience, Lecture on Psychophysics, Emory University, September 2020, September 2021, September 2022
Contact hours: 2 hours/semester

2. Faculty Writing Mentor, Neuroscience Graduate Program IBS 543 – Grant Writing and Professional Development, Emory University, Spring 2019, Spring 2020, Spring 2021
Contact hours: 4 hours/semester

iv. Anesthesiology Assistant Program

1. Course Director, Anesthesiology Assistant Program, BAHS 502 – Physiology, Emory

University, Fall 2022
Contact hours: 48 hours/semester

2. Guest Lecturer, Anesthesiology Assistant Program BAHS 502 – Physiology, Lectures on Homeostasis and Chemical Composition of Body, Cell Structures and Membranes, Cell Signaling, and Sensory Systems, Emory University, Fall 2022
Contact hours: 8 hours/semester

13. Supervisory Teaching

a. Postdoctoral Fellows Directly Supervised:

1. Ali Alsouhibani, Ph.D., 2020 – Present

b. Clinical Research Coordinators Directly Supervised

1. Mia Gregory, Clinical Research Coordinator I, Emory University, 2019-2022

2. Onika Anglin, Clinical Research Coordinator II, Emory University, 2020-2021

3. Diana Beltran, Clinical Research Coordinator III, Emory University, 2021-present

4. Ariel Watson, Clinical Research Coordinator I, Emory University, 2022-present

5. Alia-Rashan Lawhorne, Clinical Research Coordinator II, Emory University, 2022-present

c. Medical, Undergraduate, and High School Students Directly Supervised

1. John Irvin, PSYC 395 – Independent Undergraduate Research (2009-2010), PSYC 693/694H – Psychology Honors Program (2010-2011), graduated with **Honors** May 2011, University of North Carolina, 2009-2011

2. Timothy Waer, PSYC 395 – Independent Undergraduate Research, University of North Carolina, 2010

3. Quinn Tracy, PSYC 693/694H – Psychology Honors Program, graduated with **Honors** May 2011, University of North Carolina, 2010-2011

4. Lauren Baldwin, PSYC 395 – Independent Undergraduate Research, University of North Carolina, 2011-2012

5. Michael Oehler, PSYC 395 – Independent Undergraduate Research (2011-2012), PSYC 693/694H – Psychology Honors Program (2012-2013), graduated with **Highest Honors** May 2013, University of North Carolina, 2011-2013

6. Ryan McManus, PSYC 395 – Independent Undergraduate Research, University of North Carolina, 2012-2013

7. Kelly Barry, PSYC 395 – Independent Undergraduate Research (2012-2013), PSYC 693/694H – Psychology Honors Program (2013-2014), graduated with **Highest Honors** May 2014 University of North Carolina, 2012-2014
8. Laura Kochlefl, Undergraduate Research Assistant, University of Michigan (2016-2018), Graduate Student Research Assistant, Emory University (2019-2021)
9. Margaret Gunter, Work Study Research Assistant (Spring 2020), NBB 399R – Intro to Mentored Research (Fall 2020), NBB 499R – Undergraduate Research (Spring 2021), Emory University, 2020-2021
10. Matthew Hentschel, Work Study Research Assistant (Spring 2020), NBB 399R – Intro to Mentored Research (Fall 2020), NBB 499R – Undergraduate Research (Spring 2021), Emory University, 2020-2021
11. Olivia Hoekendijk, NBB 399R – Intro to Mentored Research (Spring 2020, Fall 2020), NBB 499R – Undergraduate Research (Spring 2021), Emory University, 2020-2021
12. Benjamin Riley, NBB 399R – Intro to Mentored Research (Spring 2020), NBB 495/496R – Honors Research (Fall 2020, Spring 2021), graduated with **Highest Honors** May 2021, Emory University, 2020-2021
13. Obinna Megwa, NBB 399R – Intro to Mentored Research (Spring 2020, Fall 2020), NBB 499R – Undergraduate Research (Spring 2021, Fall 2021, Spring 2022), Emory University, 2020-2022
14. Adrian Rivera, NBB 399R – Intro to Mentored Research (Spring 2020, Fall 2020), NBB 499R – Undergraduate Research (Spring 2021), Summer Undergraduate Research Experience (SURE) Program (Summer 2021), NBB 495/496R – Honors Research (Fall 2021, Spring 2022), graduated with **Highest Honors** May 2022, Emory University, 2020-2022
15. Kristen Ibanez, Foundation for Anesthesia Education and Research (FAER) Medical Student Anesthesiology Research Fellow (Summer 2021), Emory University, Focused Inquiry & Research Experience (FIRE) Program trainee (Fall 2021, Spring 2022), University of Central Florida, 2021-2022
16. Sofia Heras, NBB 399R – Intro to Mentored Research (Fall 2021), NBB 499R – Undergraduate Research (Spring 2022, Fall 2022), Undergraduate Research Assistant (Summer 2022), Emory University, 2021-present
17. Robert Lewis, School of Medicine Discovery Student, Emory University, 2021
18. Amy Ursitti NBB 495/496R – Honors Research (Fall 2021, Spring 2022), graduated with **Highest Honors** May 2022, Emory University, 2021-2022
19. Justin Thomas, NBB 399R – Intro to Mentored Research (Spring 2022), Undergraduate Research Assistant (Summer 2022), NBB 499R – Undergraduate Research (Fall 2022), Emory University, 2022-present

20. Senna Kim, NBB 399R – Intro to Mentored Research (Spring 2022), NBB 499R – Undergraduate Research (Fall 2022), Emory University, 2022-present

21. Hanifah Ali, NBB 399R – Intro to Mentored Research (Spring 2022), Undergraduate Research Assistant (Summer 2022), NBB 495R – Honors Research (Fall 2022), Emory University, 2022-present

d. Qualifying Exam Committees

1. Katelyn Oliver, Neuroscience PhD Program, Emory University, 2022

e. Thesis Committees:

1. Trevor Brothers, Honors in Psychology, University of North Carolina, 2010

2. Quinn Tracy, Honors in Psychology, University of North Carolina, 2011

3. John Irvin, Honors in Psychology, University of North Carolina, 2011

4. Michael Oehler, Honors in Psychology, University of North Carolina, 2013

5. Kelly Barry, Honors in Psychology, University of North Carolina, 2014

6. Anna Woodbury, Master of Science in Clinical Research, Emory University, 2020

7. Benjamin Riley, Highest Honors in Neuroscience and Behavioral Biology, Emory University, 2021

8. Vinita Singh, Master of Science in Clinical Research, Emory University, 2022

9. Adrian Rivera, Highest Honors in Neuroscience and Behavioral Biology, Emory University, 2022

10. Amy Ursitti, Highest Honors in Neuroscience and Behavioral Biology, Emory University, 2022

14. Lectureships, Seminar Invitations, and Visiting Professorships

a. National and International:

1. **Harper DE.** When one size does not fit all: Towards tailoring treatments to mechanisms in chronic pain patients. Interdisciplinary Pain Grand Rounds, Kansas University Medical Center, Kansas City KS, December 12, 2017.

2. **Harper DE.** Quantitative sensory testing in warmth-insensitive fields: Eliminating innocuous signals and bias. Pain Research Program Seminar Series, University of Iowa, March 9, virtual 2022.

b. Regional:

Daniel E. Harper

August 10, 2022

7

1. **Harper DE.** Overview of orofacial pain with emphasis on underlying pain mechanisms. University of Detroit Mercy School of Dentistry Seminar Series, February 8, 2019.

c. Institutional:

1. **Harper DE.** The Thermal Grill Illusion: New Light on an Old Problem. UNC Center for Pain Research and Innovation Seminar Series, UNC, Chapel Hill NC, 2013

2. **Harper DE.** Centralized pain phenotypes in temporomandibular disorders and other chronic pain conditions. Annual Moyers Presymposium for Dental Research, University of Michigan, Ann Arbor MI, March 2016.

3. **Harper DE.** Nociceptive pain mechanisms in temporomandibular disorders. Frontiers in Neuroscience Seminar Series, Neuroscience Graduate Program, Emory University, Atlanta GA. October 1, 2021.

4. **Harper DE.** Unbiased measurement of pain sensitivity in warmth-insensitive fields. Seminars in Integrative Neuroscience Series, Emory University, Atlanta GA. December 15, 2021.

15. Invitations to National/International, Regional, and Institutional Conferences

a. National and International:

1. **Harper DE.** Altered limbic metabolite levels and functional connectivity in patients with chronic urologic pain. Society of Urodynamics, Female Pelvic Medicine & Urogenital Reconstruction (SUFU) Winter Meeting, Miami FL, February 26, 2019.

2. **Harper DE.** Brain mechanisms of conditioned pain modulation in humans: Insights from neuroimaging. United States Association for the Study of Pain (USASP) Inaugural Scientific Meeting, virtual session, December 10, 2020.

16. Abstract Presentations at National/International, Regional, and Institutional Conferences

(*indicates presenting author; underline indicates Harper-mentored trainee)

a. National and International:

1. Hollins M*, **Harper DE**, Gallagher SM, Maixner W. Hypervigilance does not increase the loudness of unpleasant sounds. *Abstracts of the Psychonomic Society*, 12, 35, 2007. (Poster)

2. Hollins M*, **Harper D**, Gallagher S. Does gradual sensitization block vibrotactile pain gating? *Journal of Pain*, 10(4), Supplement 1, S31, 2009. (Poster)

3. **Harper DE***, Irvin JP, Hollins M. Descending inhibition disrupts the thermal grill illusion of pain. Society for Neuroscience Annual Meeting, New Orleans LA, 2012. (Poster)

4. **Harper DE***, Hollins M. Cool adaptation reduces the pain of the thermal grill illusion. Society for Neuroscience, San Diego CA, 2013. (Poster)
5. **Harper DE***, Pallazola V, Williams DA, Harte S, Clauw DJ, Shtein R. Confocal microscopy reveals nerve fiber similarities in fibromyalgia and idiopathic chronic dry eye. Temporomandibular Joint Association's Biannual Meeting, Washington DC, 2014. (Oral and Poster)
6. **Harper DE***, Ichesco E, Shah Y, Gerstner GE, Peltier SJ. Support vector machines used to classify evoked pain responses in temporomandibular joint disorder patients and healthy controls. NIDCR Trainee Meeting; Boston, MA, 2015. (Oral and Poster)
7. Ichesco E*, Hampson JP, **Harper DE**, Harte SE, Clauw DJ, Harris RE, Schmidt-Wilcke T. Milnacipran modifies resting brain functional connectivity in fibromyalgia. Human Brain Mapping. Honolulu, HI, 2015. (Poster)
8. **Harper DE***, Ichesco E, Hampson JP, Clauw DJ, Schmidt-Wilcke T, Harris, RE, Harte SE. Abnormalities in brainstem descending inhibitory structures could explain the deficient conditioned pain modulation commonly observed in fibromyalgia patients. Society for Neuroscience, Washington DC, October 2015. (Poster)
9. Schrepf A*, **Harper DE**, Williams DA, Hassett AL, Harte SE. Somatic awareness and tender points in a community sample. International Association for the Study of Pain, Yokohama, Japan, October 2016. (Poster)
10. **Harper DE***, Schrepf A, Harte SE, Wang H, Ichesco E, Hampson J, Zubieta JK, Clauw DJ, Harris RE. Central opioidergic dysregulation in fibromyalgia: A PET and fMRI study. International Association for the Study of Pain, Yokohama, Japan, October 2016. (Poster)
11. Thomas N*, **Harper DE**, Aronovich S. Should we screen for fibromyalgia and neuropathic pain in TMD? American Association of Oral and Maxillofacial Surgery, San Francisco, CA, 2017. (Oral)
12. **Harper DE***, Ichesco E, Schrepf A, Clauw DJ, Harris RE, Harte SE. Brain metabolite levels, functional connectivity, and negative mood in urological chronic pelvic pain syndrome: A study of the MAPP Research Network. European Pain Federation EFIC, Copenhagen, Denmark, September 2017. (Poster)
13. Harte SE*, Ichesco E, **Harper DE**, Harris RE, Clauw DJ, Arnold LM. Functional connectivity MRI displays evidence of centralized pain in patients with knee osteoarthritis. American Pain Society, Anaheim CA, March 2018. (Poster)
14. **Harper DE***, Schrepf A, Ichesco E, Aronovich S, Ashman L, Kochlefl L, Clauw DJ, Harris RE, Harte SE. Auditory hypersensitivity in temporomandibular disorder is associated with perigenual anterior cingulate cortex metabolite levels. American Pain Society, Anaheim CA, March 2018. (Poster)
15. Carver K*, **Harper DE**, Aronovich S. A Pilot Study of Outcomes of Temporomandibular Joint Procedures in Surgical Patients with Fibromyalgia. American

Academy of Craniomaxillofacial Surgeons, Portland OR, May 2018. (Oral)

16. Ichesco E*, Peltier SJ, **Harper DE**, Pauer L, Clauw DJ, Harris RE. Resting Brain Connectivity Predicts Differential Pharmacologic Response in Individual Fibromyalgia Patients. International Association for the Study of Pain, Boston MA, September 2018. (Poster)

17. **Harper DE***, Harris RE, Ichesco E, Robertson-Plouch C, Hanif S, Clauw DJ, Arnold L, Harte SE. Heightened excitatory tone in the insular and cingulate cortices is associated with widespread pain, endogenous pain facilitation, and multisensory hypersensitivity in knee osteoarthritis patients. International Association for the Study of Pain, Boston MA, September 2018. (Poster)

18. **Harper DE***, Schrepf A, Ichesco E, Aronovich S, Ashman L, Harte SE, Harris RE, Clauw DJ. Are elevated circulating immune factors related to altered brain chemistry and heightened experimental pain sensitivity in patients with painful temporomandibular disorders? National Institutes of Health Pain Consortium Meeting, Washington DC, May 2019 (Poster)

19. Owusu-Ansah M*, **Harper DE**, and Fleischer CC. Evaluation of magnetic resonance spectroscopy to identify mechanisms of centralized chronic pain. Afrobiotech, Atlanta, 2019 (Poster)

20. Owusu-Ansah M*, Fleischer CC, and **Harper DE**. Correlations between pain perception and brain metabolites in patients with temporomandibular disorder. Annual Biomedical Research Conference for Minority Students, Anaheim, CA, 2019 (Poster)

21. Owusu-Ansah M*, Fleischer CC, **Harper DE**. Association of brain metabolite concentrations and pain perception in a cohort of patients with chronic pain. ISMRM 28th Annual Meeting, virtual, 2020. (Poster) **Magna Cum Laude Merit Award**

22. Smith JL*, Allen JW, Fleischer CC, Ichesco E, Harte SE, Clauw DJ, Harris R, **Harper DE**. Resting state functional MRI in temporomandibular disorder patients and controls. International Association for the Study of Pain, World Congress on Pain, virtual, 2020 (Poster)

23. Ibanez KR*, Alsouhibani A, Louis R, Singh V, **Harper DE**. Quantitative sensory testing of painful diabetic neuropathy. American Society of Anesthesiologists Annual Meeting, San Diego CA, 2021 (Poster)

24. Gregory M*, Kaundinya G, **Harper DE**, and Fleischer CC. Characterization of pain processing in patients with temporomandibular disorder using functional magnetic resonance imaging. Afrobiotech, virtual, 2021 (Poster)

25. Alsouhibani AM*, Barron JR, Gunter M, Hoekendijk OG, Speck P, Cole EF, Orenstein LAV, **Harper DE**. Quantitative sensory testing in hidradenitis suppurativa could provide insight into pain mechanisms. Society for Neuroscience Annual Meeting, virtual, 2021 (Poster)

26. Speck PJ*, [Alsouhibani A](#), Mustin DE, Li H, Barron J, Cole E, **Harper DE**, Orenstein LAV. Quantitative sensory testing offers a novel approach to determining pain mechanisms in hidradenitis suppurativa. Symposium for Hidradenitis Suppurativa Advances, virtual, 2021 (Oral)
27. Speck P*, [Alsouhibani A](#), Mustin D, Siira M, Li H, **Harper DE**, Orenstein L. Validation of the PainDETECT Questionnaire in hidradenitis suppurativa using quantitative sensory testing. Society for Investigative Dermatology, 80th Annual Meeting, Portland, OR, 2022 (Poster)
28. Werkman DF, Carver KZ, **Harper DE**, Troost JP, Aronovich S*. Are outcomes of TMJ arthroscopy influenced by central sensitization? American Academy of Oral and Maxillofacial Surgery Annual Meeting, New Orleans LA, 2022 (Oral)
29. [Ursitti A*](#), [Alsouhibani A](#), [Megwa O](#), Hopkins J, Ousley O, **Harper DE**. A multifaceted psychophysical approach to assessment of sensory sensitivity and pain in adolescents with autism. International Association for the Study of Pain World Congress on Pain, Toronto Canada, 2022 (Poster)
30. [Rivera A*](#), [Heras S](#), [Hentschel M](#), [Alsouhibani A](#), **Harper DE**. Assessment of differences in temporal pain dynamics in pain-evoked fMRI experiments. International Association for the Study of Pain World Congress on Pain, Toronto Canada, 2022 (Poster)
31. [Alsouhibani A](#), [Riley B](#), **Harper DE**. Warmth insensitive fields: Eliminating bias in nociceptive threshold measurements. International Association for the Study of Pain World Congress on Pain, Toronto Canada, 2022 (Poster)
32. Dave E*, Thandra S, **Harper DE**, Singh V, Ahuja A, Leon A, Schwartz A, Rashid F, Kimble LP, Mehta PK. Central sensitization in women with ischemia and no obstructive coronary artery disease: A pilot study. American Heart Association's Annual Scientific Sessions, Chicago IL, 2022 (Poster)

b. Institutional

1. [Owusu-Ansah M*](#), **Harper DE**, and Fleischer CC. The relationship between pain perception and brain metabolites in patients with chronic pain. Georgia Tech Career, Research, and Innovation Development Conference, 2021 (poster)
2. Dave E*, Thandra S, **Harper DE**, Singh V, Ahuja A, Leon A, Schwartz A, Rashid F, Kimble LP, Mehta PK. Central sensitization in women with ischemia and no obstructive coronary artery disease: A pilot study. Emory Cardiology Research Day, Atlanta GA, 2022 (poster)
3. [Rivera, A*](#), [Heras S](#), [Hentschel M](#), [Alsouhibani A](#), **Harper DE**. Assessment of differences in temporal pain dynamics in pain-evoked fMRI experiments. Emory Honors Poster Session, Atlanta GA, 2022 (poster)
4. [Ursitti A*](#), [Alsouhibani A](#), [Megwa O](#), Hopkins J, Ousley O, **Harper DE**. A multifaceted psychophysical approach to assessment of sensory sensitivity and pain in adolescents with

17. Research Focus

My research focuses on better understanding how pain is processed in pain-free individuals and how these processes are disrupted in individuals with chronic pain. The lab utilizes quantitative sensory testing (QST) and brain neuroimaging to discover the underlying neurobiology of pain perception.

18. Grant Support

a. Active Support:

i. Federally Funded:

a. NIH R00DE026810

Title: Mechanistic Characterization of Pain in Temporomandibular Disorders: Does Pain Centralization Influence Responsiveness to Peripherally Targeted Treatments?

Role: Principal Investigator

Dates: July 8, 2020 – June 30, 2023

Annual Direct Costs: \$157,690/year (FY2022)

b. NIH 2R01DK099611

Title: Effect of neonatal and adult stress on pelvic pain disorders and comorbidity

Role: Co-investigator

Principal Investigator: Carlsten Christianson, Julie A

Dates: May 1, 2020 – February 28, 2025

Total subaward to Emory University: \$67,595

ii. Institutional: 07/01/2019 – 12/31/2022

a. Woodruff Scholar Early Independence Award

Title: Temporal pain dynamics in functional magnetic resonance imaging (fMRI)

Dates: July 1, 2019 – December 31, 2022

Award Total: \$50,000

iii. Other – Training Grants and Trainee Fellowships

a. NIH T32NS096050

Title: Training in systems and integrative biology neuroscience

Role: Training Faculty (2020-present)

Principal Investigator: Smith, Yolanda

Dates: July 1996 - June 2026

Annual Direct Costs: \$327,502/year (FY2022)

- b. NIH K23AR080245
Title: Pain in Hidradenitis Suppurativa: Phenotypes and Stakeholder Perspectives
Role: Co-mentor
Principal Investigator: Orenstein, Lauren Anne Vigil
Dates: July 2022 - June 2027
Annual Direct Costs: \$139,700/year (FY2022)

b. Previous Support:

- i. NIH K99DE026810
Title: Mechanistic Characterization of Pain in Temporomandibular Disorders: Does Pain Centralization Influence Responsiveness to Peripherally Targeted Treatments?
Role: Principal Investigator
Dates: April 2017 – June 2019
Annual Direct Costs: \$109,500
- ii. Michigan Institute for Clinical and Health Research (MICHR) Translational Science Award
Title: Pain Centralization and Peripheral Neuropathy in Temporomandibular Joint Disorder: A Tale of Two Mechanisms
Role: Co-Investigator
Principal Investigator: Steven Harte and Roni Shtein
Dates: February 2016 – January 2018
Award Total: \$50,000
- iii. NIH K12DE0023574
Title: University of Michigan's TMJD and Orofacial Pain Interdisciplinary Consortium
Role: Scholar / Trainee
Principal Investigator: Daniel J. Clauw
Annual Direct Costs: \$497,890

19. Bibliography

Note: *indicates senior/corresponding author; underline indicates Harper-mentored trainee

a. Published and Accepted Research Articles (clinical, basic science, other) in Refereed Journals:

1. Hollins M*, Lorenz F, **Harper D**. (2006). Somatosensory coding of roughness: The effect of texture adaptation in direct and indirect touch. *Journal of Neuroscience*, 26, 5582-5588.
2. Hollins M*, **Harper D**, Gallagher S, Owings EW, Lim PF, Miller V, Siddiqi MQ, Maixner W. (2009). Perceived intensity and unpleasantness of cutaneous and auditory stimuli: An evaluation of the generalized hypervigilance hypothesis. *Pain*, 141, 215-221.
3. Hollins M*, **Harper D**, Maixner W. (2011). Changes in pain from a repetitive thermal stimulus: The roles of adaptation and sensitization. *Pain*, 152, 1583-1590.

4. **Harper DE** and Hollins M*. (2012). Is touch gating due to sensory or cognitive interference? *Pain*, 153, 1082-1090.
5. Hollins M*, McDermott K, **Harper D**. (2014). How does vibration reduce pain? *Perception*, 43(1), 70-84.
6. **Harper DE**, Hollins M*. (2014). Coolness both underlies and protects against the painfulness of the thermal grill illusion. *Pain*, 155(4), 801-807.
7. Shtein RM*, **Harper DE**, Pallazola V, Harte SE, Hussain M, Sugar A, Williams DA, Clauw DJ. (2016). Discordant dry eye disease. *Transactions of the American Ophthalmological Society*, 114, T4. PMC5189926
8. Schrepf A, **Harper DE**, Williams DA, Hassett AL, Harte SE*. (2016). Somatic awareness and tender points in a community sample. *Journal of Pain*, 17(2): 1281-1290. PM27589911/PMC5125857
9. Schrepf A¹, **Harper DE**¹, Harte SE, Wang H, Ichesco E, Hampson JP, Zubieta JK, Clauw DJ, Harris RE*. (2016). Endogenous opioidergic dysregulation of pain in fibromyalgia: a PET and fMRI study. *Pain*, 157(10), 2217-2225. ¹Co-1st authors
10. **Harper DE**¹, Shah Y¹, Ichesco E, Gerstner GE*, Peltier SJ*. (2016). Multivariate classification of pain-evoked brain activity in temporomandibular disorder. *Pain Reports*, 1(3): e572. *Co-1st authors
11. **Harper DE**, Hollins M*. (2017). Conditioned pain modulation dampens the thermal grill illusion. *European Journal of Pain*, 21(9), 1591-1601.
12. Thomas N, **Harper DE**, Aronovich S*. (2018). Does temporomandibular joint effusion on MRI correlate with signs and symptoms of TMJ disease? *British Journal of Oral and Maxillofacial Surgery*, 56(2), 96-100.
13. **Harper DE**, Ichesco E, Schrepf A, Halvorson M, Puiu T, Clauw DJ, Harris RE, Harte SE*. (2018). Relationships between brain metabolite levels, functional connectivity, and negative mood in urologic chronic pelvic pain syndrome patients compared to controls: A MAPP research network study. *Neuroimage Clinical*, 17, 570-578.
14. **Harper DE**, Ichesco E, Schrepf A, Hampson JP, Clauw DJ, Schmidt-Wilcke T, Harris RE, Harte SE*. (2018). Resting functional connectivity of the periaqueductal gray is associated with normal inhibition and pathological facilitation in conditioned pain modulation. *Journal of Pain*, 19(6) 635.e1-635.e15. ***Also featured on journal cover
15. Schrepf A, Williams DA, Gallop R, Naliboff B, Basu N, Kaplan C, **Harper DE**, Landis JR, Clemens JQ, Strachan E, Griffith JW, Afari N, Hassett A, Pontari MA, Clauw DJ, Harte SE*. (2018). Sensory sensitivity and symptom severity represent unique dimensions of chronic pain: A MAPP Research Network study. *Pain*, 159, 2002-2011.

16. Ichesco E, Peltier SJ, Mawla I, **Harper DE**, Pauer L, Harte SE, Clauw DJ, Harris RE*. (2021). Prediction of Differential Pharmacologic Response in Chronic Pain Using Functional Neuroimaging Biomarkers and Support Vector Machine Algorithm - An Exploratory Study. *Arthritis Rheumatol* PubMed PMID: 33982890.
17. Lu CW, **Harper DE**, Askari A, Willsey MS, Vu PP, Schrepf AD, Harte SE, Patil PG*. (2021). Stimulation of zona incerta selectively modulates pain in humans. *Sci Rep*, 11(1):8924. PubMed Central PMCID: PMC8076305.
18. **Harper DE***, Sayre K, Schrepf A, Clauw DJ, Aronovich S. Impact of fibromyalgia phenotype in temporomandibular disorders. *Pain Medicine*, 22(9), 2050-2056. (2021). DOI: 10.1093/pm/pnab077
19. Woodbury A, Krishnamurthy LC, Bohsali A, Krishnamurthy V, Smith JL, Gebre M, Tyler K, Vernon M, Crosson B, Kalangara JP, Napadow V, Allen JW, **Harper DE***. Percutaneous electric nerve field stimulation alters cortical thickness in a pilot study of veterans with fibromyalgia. *Neurobiol Pain*. (2022). doi: 10.1016/j.ynpai.2022.100093. PMID: 35733704; PMCID: PMC9207563.
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