OMB No. 3145-0279 (Expiration Date 10/31/2026)

NIH BIOGRAPHICAL SKETCH COMMON FORM

Name: Chaudhry, Laila

Persistent Identifier (PID) of the Senior/Key Person: https://orcid.org/0009-0007-4134-3666

Position Title: Postdoctoral Scholar

Organization and Location: Stanford University, Stanford, California, United States

PROFESSIONAL PREPARATION

INSTITUTION AND LOCATION	DEGREE	Start Date	Completion Date	FIELD OF STUDY
Stanford University, Palo Alto, California, United States	Postdoctoral Fellow	10/2025	10/2027	Anesthesiology, Perioperative and Pain Medicine
McGill University, Montreal, Quebec, Canada	Doctor of Philosophy (PHD)	08/2018	05/2025	Experimental Psychology: Chronic Pain
Virginia Commonwealth University, Richmond, Virginia, United States	Bachelor of Science (BS)	08/2014	05/2018	Psychology; Minors: Biology, Chemistry, Spanish; Certificates: Product Innovation, Global Education

Appointments and Positions

2025 - present Postdoctoral Scholar, Stanford University, Stanford, California, United States
2019 - 2024 Psychology Department Representative, McGill University, Montreal, Quebec, Canada
2018 - 2025 Predoctoral Research Assistant, McGill University, Montreal, Quebec, Canada
2018 - 2025 Teaching Assistant, McGill University, Montreal, Quebec, Canada

Products

Other Significant Products Highlighting Contributions to Science

1. Chaudhry LA, Usselman CW, Mogil JS. Pain and Autonomic Function: The Relationship Between Conditioned Pain Modulation and Cardiovagal Baroreflex Sensitivity. Canadian Journal of Pain. 2025 August 22; 9(2):2522031. Available from: https://doi.org/10.1080/24740527.2025.2522031 DOI: 10.1080/24740527.2025.2522031
2. Chaudhry LA, Coovadia Y, Schwende BK, Berbrier DE, Huckins W, Saboune J, Skolnik DA, Van Berkel EK, Mogil JS, Usselman CW. Sex differences in the relationship between pain and autonomic outflow during a cold pressor test. Biol Sex Differ. 2025 Aug 6;16(1):60. PubMed Central PMCID: PMC12326594.
3. Chaudhry L. Mechanisms of pain facilitation and inhibition: autonomic outflow and conditioned pain modulation. McGill University (Canada); 2025. isbn: 9798291535103
4. Chaudhry LA, Aboud I, Ferland M, Cuillerier NS, Carrier SS, Nickner E, Martel MO, Mogil JS. The direction and magnitude of conditioned pain modulation is dependent on test stimulus intensity in healthy participants but not in those with fibromyalgia. J Pain. 2025 Nov;36:105534. PubMed PMID: 40819694.
5. Chaudhry LA, Aboud I, Ferland M, Carrier S, Martel MO, Mogil JS. Test stimulus intensity-dependent conditioned pain modulation in patients with fibromyalgia. Canadian Journal of Pain. 2024 July 08; 8(3):2366132. Available from: https://doi.org/10.1080/24740527.2024.2366132 DOI: 10.1080/24740527.2024.2366132

Certification:

I certify that the information provided is current, accurate, and complete. This includes but is not limited to information related to domestic and foreign appointments and positions.

I also certify that, at the time of submission, I am not a party to a malign foreign talent recruitment program.

Misrepresentations and/or omissions may be subject to prosecution and liability pursuant to, but not limited to, 18 U.S.C. §§ 287, 1001, 1031 and 31 U.S.C. §§ 3729-3733 and 3802.

Certified by Chaudhry, Laila in SciENcv on 2026-03-19 18:37:18

NIH BIOGRAPHICAL SKETCH SUPPLEMENT

Name: Chaudhry, Laila

Persistent Identifier (PID) of the Senior/Key Person: https://orcid.org/0009-0007-4134-3666

Position Title: Postdoctoral Scholar

Organization and Location: Stanford University, Stanford, California, United States

Personal Statement

My academic training and research experience have provided me with a strong foundation in human psychophysiology, pain science, and autonomic neuroscience. As an undergraduate at Virginia Commonwealth University, completing a B.S. in Psychology with minors in Biology and Chemistry, I developed an early interest in the biopsychosocial mechanisms underlying human behavior. During this time, I became involved with various research projects, both scientifically and commercially oriented. This interdisciplinary background paired with my interest in sex differences led me to pursuing doctoral studies under Dr. Jeffrey Mogil at McGill University. During my training with Dr. Mogil, I became interested in the technique 'microneurography' and how it could be integrated into pain research. I was delighted to learn that there was an individual on McGill campus conducting studies using this technique in cardiovascular/autonomic health research, Dr. Charlotte Usselman. Thus began my interest in the overlap between the autonomic system and chronic pain: working under the mentorship of leaders in the field, I conducted human psychophysiological and clinical studies investigating how autonomic function, sex, and hormonal influences modulate pain and analgesic responses. This ultimately culminated in my dissertation titled "Mechanisms of pain facilitation and inhibition: autonomic outflow and conditioned pain modulation," but also produced first-author publications in Biology of Sex Differences and The Journal of Pain, as well as various presentations at international conferences such as the Canadian Pain Society, the American Physiological Society, and the International Association for the Study of Pain.

I have received several competitive awards, including the Judith Mappin Fellowship in Women's Health and the **NIH T90 HEAL Postdoctoral Fellowship**, recognizing both my scientific contributions and potential for research leadership. My postdoctoral training under Drs. Jennifer Rabbitts and Cornelius Groenewald at Stanford Medicine's Department of Anesthesiology is designed to extend my expertise into clinical-translational pain research, bridging psychology, neurophysiology, and personalized medicine. This training environment will provide opportunities to integrate experimental and clinical methodologies to examine how both physiological and sociocultural factors influence pain and opioid responsiveness in a pediatric population. These experiences will strengthen my ability to contribute meaningfully to the development of precision health strategies for pain management, particularly in underserved populations.

Beyond research, I am committed to scientific communication and mentorship. Through initiatives such as SciKids @ VCU and Vulgar Science, I have worked to promote accessible and engaging discussions of science across audiences. My teaching and outreach experiences have refined my ability to translate complex concepts and to foster inclusive participation in science. My long-term goal is to establish an independent research program focused on integrating interdisciplinary methods and an intersectional lens to study chronic pain vulnerability and resilience. By integrating autonomic neuroscience with precision health frameworks, I aim to advance equitable, mechanism-driven pain treatments that improve quality of life across diverse patient populations.

Honors

2026	USASP Travel Award, United States Association for the Study of Pain
2025 - 2027	NIH T90 HEAL Postdoctoral Fellowship, Stanford University/National Institute of Health
2024	Michael Quek Teaching Assistant Award, McGill University
2024	McGill Pain Day Poster Presentation Award, McGill University
2023	McGill Minds in Motion Student Oral Presentation Award, McGill University
2023	QPRN Travel Award, Quebec Pain Research Network
2021	Wolf Fellowship in Science and Technology, McGill University
2019	CIHR Poster Presentation Travel Award, Canadian Institute of Health Research
2018 - 2019	Judith Mappin Fellowship in Women's Health, McGill University
2018 - 2018	University Honors, Virginia Commonwealth University
2014 - 2019	Scholarship, J.W. Ardell T. Brumit

2014 - 2018 University Provost Scholarship, Virginia Commonwealth University

Contributions to Science

1. **Pain and autonomic function:** Chronic pain is complex, closely linked to chronic stress, and often comorbid with autonomic symptoms. Therefore, explorations in the mechanistic overlap between pain and stress may help us to better understand and treat chronic pain. This is a highly understudied area, leading me to combine the expertise of my two PhD supervisors to create my own niche, and serve as the primary investigator on these projects. We found that 1) long-lasting pain was associated with increased sympathetic firing in female participants [Product 2], and 2) pain inhibition was associated with parasympathetic mechanisms in a mixed-sex group [Product 1].

2. **Psychophysiology of pain:** Quantitative sensory testing is used in the pain field to phenotype pain in both experimental and clinical contexts. However, there is little to no standardization of methods, leading to variations in pain perception and inexplicable findings throughout the literature. My primary supervisor and I initiated, conducted, and completed a project examining how differences in stimulus intensity in a conditioned pain modulation (CPM) protocol led to varied pain outcomes. We determined that insufficiently painful stimuli in a CPM protocol led to hyperalgesic outcomes, as opposed to the expected pain inhibition [Product 4].

Certification:

I certify that the information provided is current, accurate, and complete. This includes but is not limited to information related to domestic and foreign appointments and positions.

I also certify that, at the time of submission, I am not a party to a malign foreign talent recruitment program.

Misrepresentations and/or omissions may be subject to prosecution and liability pursuant to, but not limited to, 18 U.S.C. §§ 287, 1001, 1031 and 31 U.S.C. §§ 3729-3733 and 3802.

Certified by Chaudhry, Laila in SciENcv on 2026-03-1918:37:18