

LAILA CHAUDHRY, PHD

RESEARCHER

EDUCATION & TRAINING

Virginia Commonwealth University, Richmond, VA
May 2018

Bachelor of Science: Psychology
Minors: Biology/Chemistry/Spanish

Certificates: Product Innovation,
Global Education
Overall GPA: 3.5/4.0

McGill University,
Montreal, QC, May 2025
Doctor of Philosophy:
Experimental Psychology

Dissertation: Mechanisms of
pain facilitation and inhibition:
autonomic outflow and
conditioned pain modulation

Stanford University,
Palo Alto, CA
October 2025- Present

Postdoctoral Scholar,
Department of
Anesthesiology, Perioperative
and Pain Medicine

CURRENT RESEARCH AND INTERESTS

Current research projects consist of human psycho- and neurophysiology studies exploring autonomic interactions with pain, and clinical pediatric studies examining the interaction between opioids, pain, and sleep. **I am passionate about** personalized health research. I believe that using interdisciplinary methodologies and examining findings through an intersectional lens (e.g., sex, gender, race, SES) allow for greater data richness and more effective treatments for underserved groups.

PUBLICATIONS

Papers

In Preparation

Chaudhry; Gontier; Dionicio; Carney; Peach-Riley; Rogers; Palermo; Zeitzer; Groenewald (2026) Effects of sleep and circadian rest-activity rhythms on daily post-surgical pain severity in adolescents; In preparation for submission to PAIN

Chaudhry; Gontier; Groenewald (2026) Predicting Acute Postoperative Pain in Adolescents After Orthopedic Surgery: Development and External Validation of a Machine Learning Model; In preparation for submission to PAIN

Chaudhry; Carney; Anderson; Rabbitts; Groenewald (2026) Annual medical care expenditures and financial toxicity among youth with pain conditions in the United States: a nationally representative study; In preparation for submission to Clinical Journal of Pain

Schwende; Duval; Berbrier; Delage; Bensimon; Chaudhry; Coovadia; Moreira-Bouchard; Moreau; Taylor; Pilote; Al-Khazraji; Usselman (2026) Exploring relationships between GENESIS-PRAXY-derived gender-related variables and blood pressure in young men and women with and without polycystic ovary syndrome; In preparation

Under Review

Kreider; Chaudhry; Rabbitts; Chao; Anderson; Groenewald (2026) National medical expenditures associated with pediatric surgical care in the United States; Submitted to Journal of Pediatric Surgery

Accepted

Coovadia; Van Berkel; Chaudhry; Schwende; Malenda; Usselman (2026) Interactions Between Reproductive Hormones and Neurovascular Regulation During the Cold Pressor Test in Young Females; Journal of Applied Physiology

Dionicio; Rabbitts; Chaudhry; Rodgers; Palermo; Groenewald (2026) Association of preoperative sleep deficiency with postoperative daily maximum pain among adolescents; Journal of Behavioral Sleep Medicine

Chou; Chaudhry; Rabbitts; Groenewald (2026) Prevalence of Chronic Pain Among U.S. Children with Neurodevelopmental Disorders; Pain Reports

Chaudhry; Aboud; Ferland; Stonebanks-Cuillerier; Carrier; Nickner; Mogil (2025) The direction and magnitude of conditioned pain modulation is dependent on test-stimulus intensity in healthy participants but not in those with fibromyalgia; Journal of Pain

Chaudhry; Coovadia; Schwende; Berbrier; Huckins; Saboune; Skolnik; Van Berkel; Mogil; Usselman (2025) Sex differences in the relationship between pain and autonomic outflow during a cold pressor test; Biology of Sex Differences

Abstracts

Chaudhry; Mogil; Usselman; (2026) Autonomic regulation of pain inhibition mechanisms: the relationship between cardiovascular baroreflex sensitivity and conditioned pain modulation

Chaudhry; Usselman; Mogil; (2026) Pain and Autonomic Function: Involvement of the Parasympathetic System in Conditioned Pain Modulation

Chaudhry; Usselman; Mogil; (2025) Pain and Autonomic Function: The Relationship Between Conditioned Pain Modulation and Cardiovascular Baroreflex Sensitivity

Chaudhry; Aboud; Ferland; Stonebanks-Cuillerier; Carrier; Martel; Mogil (2024) Test stimulus intensity-dependent "anti-CPM" in patients with fibromyalgia

Coovadia; Chaudhry; Malenda; VanBerkele; Usselman (2024) Interactions Between Reproductive Hormones and Neuro-Vascular Regulation During the Cold Pressor Test in Young Females

Chaudhry; Aboud; Ferland; Carrier; Martel; Mogil (2023) Test stimulus intensity-dependent conditioned pain modulation

Chaudhry; Coovadia; Chen; Usselman (2023) The relationship between subjective pain ratings and sympathetic outflow during a cold pressor test

Coovadia; Chaudhry; Fraser; Usselman (2023) The effect of sex on sympathetic transduction during an acute pain stimulus

Coovadia; Chaudhry; Saboune; Schwende; Usselman (2023) Sex differences in the neuro-vascular control of blood pressure

Chaudhry; Carrier; Martel; Mogil (2022) Conditioned pain modulation in humans is dependent on stimulus intensity

Chaudhry; Maldonado; Dutra; Mogil (2019) The role of human chemosignals in eliciting a stress response

Posters

Chaudhry, L. A. (2015). Can You Please Put Your Phone Away? Examining how the FOMO phenomenon and mobile phone addiction affect human relationships.

TEACHING EXPERIENCE

- Sept 2018- May 2025 **Graduate Teaching Assistant**
McGill Psychology Department
- Holding exam preparation sessions and exam reviews
 - Invigilating exams
 - Meeting with students for one-on-one consultation and class help
 - Classes: Psychology of Pain, Intro to Behavioral Neuroscience, Intelligence, Human Sexuality and Its Problems
- Jan 2017-May 2018, Oct 2019-May 2021 **Tutor**
VCU Student Athletic Support Services & McGill Tutorial Services
- Working with VCU & McGill students to foster understanding of academic topics through effective communication
- Aug 2015 - December 2015 **Teaching Assistant for HONR 200, Writing and Rhetoric**
VCU Teaching Assistant Program
- Facilitate group work with students
 - Create classrooms lessons with approval of professor
 - Worked with professor to examine and evaluate senior dossier essays

SCIENCE COMMUNICATION

- Nov 2025 **Research Brief**
The McGill Tribune
- Interview about recent publication leading to lay article "Sex-specific autonomic signatures of tonic pain"
- Oct 2023 **Presentation**
Quebec Pain Research Network
- Present pain content to chronic pain patients
<https://youtu.be.com>
- Apr 2023 **Press Release**
American Journal of Physiology
- Created lay language press release for the study "The relationship between subjective pain ratings and sympathetic outflow during a cold pressor test" in advance of American Physiology Summit
 - Invited to participate in press conference for the American Physiology Summit
- Mar 2023 **Scimatic**
College Saint Anne
- Inviting and working with STEM- interested high school student
 - Demonstrated while she shadowed physiological data collection activities
- Feb 2023- Present **Vulgar Science**
Twitch.tv
- Conversational podcast-style live stream focused on using humour to facilitate conversations about science and academic life
- Aug 2015 - June 2017 **President**
Scikids @ VCU
- Working with underprivileged Richmond youth to promote an interest in math and science
 - Planning, organizing, and conducting fun science experiments for elementary students

SCHOLARSHIPS, FELLOWSHIPS, & AWARDS

- 2014-2018 Undergraduate University Provost Scholarship (\$50,000)
- 2014-2019 J.W. Ardell T. Brumit (\$4,000)
- 2018-2019 Judith Mappin Fellowship in Women's Health (\$20,000)
- 2019 CIHR Travel Award (\$2,595)
- 2020 GREAT Travel Award (\$250)
- 2020 IASP Travel Award (\$800; not received due to COVID-19)
- 2021 Wolfe Fellowship in Science and Technology (\$6,000)
- 2023 QPRN Travel Award (\$1000)
- 2024 McGill Pain Day Poster Presentation Award (\$250)
- 2024 Michael Quek Teaching Assistant Award (\$100)
- 2024 Graduate Mobility Award (\$750)
- 2025-2027 NIH T90 HEAL Postdoctoral Fellowship (\$62,000/yr)
- 2026 USASP Travel Award (\$400)

RESEARCH EXPERIENCE

- Oct 2025- Present **Postdoctoral Projects**
Stanford Anesthesia
- Prevalence of chronic pain in neurodevelopmental disorders
 - Effect of pre-operative and post-operative sleep and circadian rhythms on post-operative pain
 - Economic costs and financial toxicity as result of treating pediatric chronic pain in the US
 - Predictive modeling of postoperative opioid use and misuse
 - Big data prognostic studies of chronic pain development (ADD Health, ABCD, NSCH)
- Sept 2018- May 2025 **PhD Projects**
McGill Psychology Department
- The role of 3M2H chemosignals in eliciting a stress response
 - Approach or avoidance to pain/sickness behaviours in human strangers
 - Examining prosociality and risk-taking in response to pain or sickness behaviours
 - Long-term sex differences in mouse neuropathic pain
 - Conditioned pain modulation in human subjects
 - Examining how test stimulus pain intensity can affect endogenous pain modulation in healthy participants and fibromyalgia patients
 - The relationship between subjective pain ratings and sympathetic outflow during a cold pressor test
 - Examining the relationship between changes in pain and changes in sympathetic activity
 - The relationship between autonomic outflow and conditioned pain modulation
 - Examining how autonomic activity is related conditioned pain modulation-related changes in pain
- July 2016- May 2018 **Research Asst. in Dr. Chester's Social Neuroscience Lab**
VCU Psychology Department
- Conducted behavioral studies of aggression using deception
 - Assisted in conducting MRI research studies
- Aug 2017- Dec 2017 **Student Product Developer**
VCU DaVinci Center
- Collaborate with pharmaceutical company Pfizer on project surrounding stiffness and pain
 - Researched the underlying causes of stiffness and pain and how they differ
 - Developed products for the specific needs of the most pain-prone demographic
- Sept 2015- June 2016 **Research Asst. in Dr. Winter's CHAMP Developmental Lab**
VCU Center for Psychological Services and Development
- Conducted 15+ 3-hour studies with Richmond inner-city families
 - Trained in developmental assessment tasks, data entry, and SPSS data analysis
 - Collected saliva samples

PRESENTATIONS

Oral Presentations

McGill Minds in Motion ***

March 9th, 2023

- Student Award oral presentation "The relationship between subjective pain ratings and sympathetic outflow during a cold pressor test"

Society for Neuroscience

November 8-11, 2021

- Presented slide deck "Sex differences in the long-term course of neuropathic pain behavior after spared nerve injury"

International Association Volunteer Experience ***

November 7-10 2016

- Presentation about Study Abroad Reciprocal Service Volunteer experience

Posters

International Association for the Study of Pain

Oct 26-30, 2026

- Presented poster "Effects of circadian rest-activity rhythms on daily post-surgical pain in adolescents"

Stanford Anesthesia Research Awards Dinner

June 1, 2026

- Presented poster "Pain and Autonomic Function: Involvement of the Parasympathetic System in Conditioned Pain Modulation"

American Physiology Summit

Apr 23-26, 2026

- Presented poster "Autonomic regulation of pain inhibition mechanisms: the relationship between baroreflex sensitivity and conditioned pain modulation"

United States Association for the Study of Pain ***

Mar 23-26, 2026

- Presented poster "Pain and Autonomic Function: Involvement of the Parasympathetic System in Conditioned Pain Modulation"

Canadian Pain Society

May 1-4, 2025

- Presented poster "Pain and Autonomic Function: The relationship between conditioned pain modulation and baroreflex sensitivity"

International Association for the Study of Pain

August 5-9, 2024

- Presented poster "Time and sex modulate the relationship between pain and sympathetic activity during a cold pressor test"

Canadian Pain Society

April 27-30, 2024

- Presented poster "Test stimulus intensity-dependent conditioned pain modulation in patients with fibromyalgia"

McGill Pain Day ***

January 25th, 2024

- Presented poster "Test stimulus intensity-dependent conditioned pain modulation in patients with fibromyalgia"

Canadian Pain Society

May 10-12, 2023

- Presented poster "Test stimulus intensity-dependent conditioned pain modulation"

American Physiological Society ***

April 20-23, 2023

- Presented poster "The relationship between subjective pain ratings and sympathetic outflow during a cold pressor test"

McGill Pain Day

January 19th, 2023

- Presented poster "Conditioned pain modulation in humans is dependent on test stimulus intensity"

International Association for the Study of Pain

September 19-23, 2022

- Presented poster "Conditioned pain modulation in humans is dependent on stimulus intensity"

Canadian Organization for Gender & Sex Research

May 29-31, 2022

- Presented poster "The relationship between subjective pain ratings and sympathetic outflow during a cold pressor test in males and females"

Canadian Pain Society

May 10-13, 2022

- Presented poster "Conditioned pain modulation in humans is dependent on stimulus intensity"

McGill Pain Day

January 23rd, 2020

- Presented poster "A Translational Study of Pain Approach and Avoidance"

Organization for the Study of Sex Differences ***

May 5-8 2019

- Presented poster "The role of human chemosignals in eliciting a stress response"

Canadian Pain Society

April 2-5 2019

- Presented poster "The role of human chemosignals in eliciting a stress response"

VCU Undergraduate Research Symposium

April 20, 2015

- Presentation on FOMO phenomenon and mobile phone addiction

*** Indicates award associated

RESEARCH SKILLS

- Data analysis with SPSS/Prism
- Coding in Python
- Hargreaves algiesometry
- Von Frey algiesometry
- Intraperitoneal injections
- ELISA cortisol analysis
- Study coordination
- Social media management
- Microneurographic data collection and analysis
- fMRI data collection
- Quantitative sensory testing
- Saliva collection
- Undergraduate team management
- Funding application creation

SERVICE & LEADERSHIP EXPERIENCE

- Jan 2019 - Jan 2024 **Psychology Representative/McGill Community Council Liaison**
AGSEM TA Union
- Represent the interests of Teaching Assistants in Psychology department
 - Work with other union representatives to pass and implement initiatives within McGill University sphere
- Jan 2020 - Mar 2020 **Hebb Lecture Committee Member**
McGill Psychology Department
- Negotiate logistics of department's speaker series wine and cheese events
 - Plan, setup, serve, and cleanup events for 50+ attendees
- May 2015 - July 2018 **Student Orientation Leader/Logistics Coordinator**
VCU New Student & Family Programs
- Serving over 6,000 incoming students every summer for 4 summers
 - Worked with incoming students and parents to integrate them into the VCU community, small group facilitation
 - Planning the process of Orientation, troubleshooting logistical problems
- Aug 2014- June 2018 **President**
VCU Admissions Ambassadors
- Giving tours and presenting the university to prospective students
 - Giving speeches about my VCU experience at 3+ admissions events per year
- Aug 2015- June 2017 **President**
Scikids @ VCU
- Working with underprivileged Richmond youth to promote an interest in math and science
 - Planning, organizing, and conducting fun science experiments for elementary students
- Feb 2017- May 2017 **Bilingual Lesson Planner**
Chesterfield County Schools
- Planned and executed individual lessons in Spanish and English for 15 ESL middle school students at Falling Creek Middle School
 - Acted as a teacher's aide during ESL classes