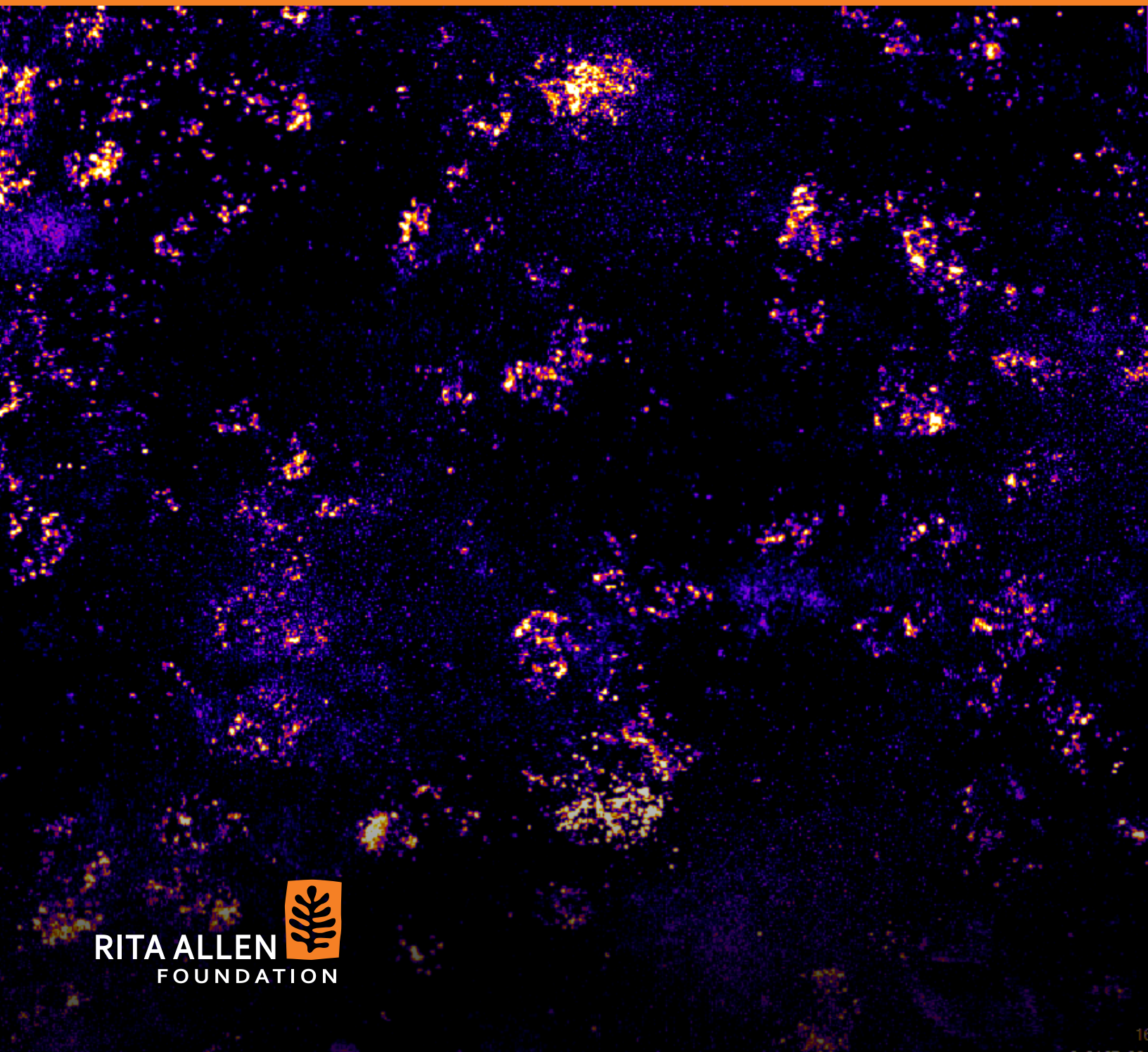
THE RITA ALLEN FOUNDATION

AWARD IN PAIN SCHOLARS
ADVANCING BASIC PAIN RESEARCH



RITA ALLEN FOUNDATION

A NETWORK OF **HOPE**

Since its inception in **2009**, the **Rita Allen Foundation Award in Pain** has expanded the reach of the **Rita Allen Foundation Scholars program**, supporting **38 pioneering early-career Pain Scholars**. Each year, as we welcome a new class of Scholars, we reflect on the achievements of this growing community of researchers and the profound questions that propel them toward new discoveries.

These scientists are at the forefront of **unraveling the neurobiological mechanisms of pain**, mapping **neural circuits**, uncovering **immune signaling pathways**, and exploring the intricate connection between **pain and itch**. Their findings illuminate pathways toward **novel pain therapeutics**—offering **new approaches to combat opioid tolerance and withdrawal, prevent the transition from acute to chronic pain, and develop safer, more precise treatments.**

They are part of an interconnected network of innovators, leveraging cutting-edge tools and knowledge, bound by a shared commitment to shaping the future of pain research.

A LEGACY OF COMMITMENT

The Foundation's deep-rooted commitment to **pain research** dates to our original benefactor, **Rita Allen**, who identified pain as one of a handful of priority areas requiring support to **alleviate human suffering**. Her vision, combined with insight from pioneers in public health and biomedical research, **established the Rita Allen Foundation Scholars program nearly 50 years ago**, with pain research among its core areas of focus.

Since that time, our network has grown, inspired and guided by **Kathleen Foley**, a **Rita Allen Scholar (1978)** who has advanced pain research and treatment worldwide. As the Foundation's **Medical Advisor**, Foley continues to **support new generations of Scholars** and strengthen partnerships that drive research forward. Philanthropic partners Open Philanthropy and Margaret and William R. Hearst III have made it possible to welcome nine additional Scholars into the Pain Scholars network since 2019. Together, we are working to expand opportunities for early-career scientists and forge collaborations that **confront the vast scope of pain in America**.

AN URGENT AND PROMISING FRONTIER

We extend our gratitude to the many Rita Allen Scholars who have **advised and guided our efforts**, serving on selection committees, and mentoring the next generation of leaders in the field.

The message we share about **pain research is twofold: urgency and promise**. The scientists featured in the pages ahead represent a **growing community** of innovative, dedicated researchers tackling pain from every angle—**neuroscience, genetics, cell biology, and clinical practice**. Despite the challenges, their collective work represents a **network of hope**.

This work becomes more urgent as we face **an aging population, a rising number of cancer survivors experiencing chronic pain, and widespread suffering that remains difficult to quantify**. Today, chronic pain affects **more than 24% of adults in the United States**, with **22 million Americans** enduring high-impact pain that severely limits their daily lives. This epidemic exacts a cost of **hundreds of billions of dollars**, yet the **human toll is immeasurable**.

Despite a recent encouraging decrease, **opioid addiction and overdose deaths remain a national crisis**, with opioid overdose the leading cause of death for Americans aged 18-44. **Investing in pain research** is a critical component of addressing this crisis—**paving the way for safer, more effective treatments and long-term solutions**. And we are working to share this **essential** message with other philanthropic partners.

EXPLORING NEW FRONTIERS IN PAIN SCIENCE

Beyond these challenges, the **COVID-19 pandemic** has introduced new concerns. Many patients recovering from COVID-19 **experience lingering pain**, prompting Rita Allen Pain Scholars and other researchers to explore the connections between **viral infections, inflammation, and the nervous system**. Their work seeks to **unravel the biological underpinnings of post-viral pain**, potentially leading to **new insights not only for COVID-19 patients but for chronic pain sufferers worldwide.**

The field of pain research is full of **seeds of innovation**—offering new directions in medicine that could **transform the lives of millions**. By investing in **biomedical research**, particularly **pain research**, we are investing in a **future of hope**—a future where safer, more effective treatments exist, and where patients and families no longer must endure the burden of chronic pain without answers.

With **profound appreciation** for the dedicated scientists advancing this essential work,

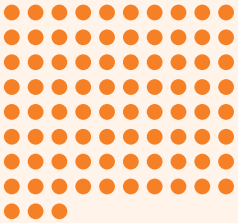
ELIZABETH G. CHRISTOPHERSON

President and Chief Executive Officer
Rita Allen Foundation

BY THE **NUMBERS**

RITA ALLEN FOUNDATION

CHRONIC PAIN



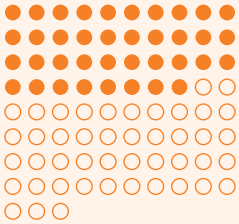
82.6M
number of sufferers[1]

24.3%
prevalence

$725B
estimated direct cost[4]

$818M
estimated NIH spending[7]

DIABETES



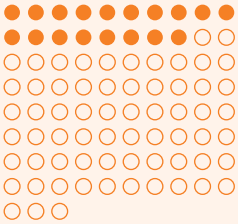
38.4M
number of sufferers[2]

11.6%
prevalence

$306.6B
estimated direct cost[5]

$1,229M
estimated NIH spending[7]

CANCER



18M
number of sufferers[3]

5.3%
prevalence

$208.9B
estimated direct cost[6]

$8,093M
estimated NIH spending[7]

1. CDC https://www.cdc.gov/nchs/products/databriefs/db518.htm
2. CDC https://www.cdc.gov/diabetes/php/data-research/?CDC_AAref_Val=https://www.cdc.gov/diabetes/pdfs/data/statistics/national-diabetes-statistics-report.pdf
3. cancer.org https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2025/2025-cancer-facts-and-figures-acs.pdf
4. ispor.org https://www.ispor.org/docs/default-source/intl2024/ispor24morlandogeigeree359poster136819-pdf.pdf?sfvrsn=731df6a7_0
5. diabetes.org http://diabetes.org/newsroom/press-releases/new-american-diabetes-association-report-finds-annual-costs-diabetes-be
6. cancer.gov https://progressreport.cancer.gov/after/economic_burden
7. NIH https://report.nih.gov/funding/categorical-spending#/

KARA MARSHALL, PH.D. →

Assistant Professor, Neuroscience
Baylor College of Medicine

Project: Silent No More: Identifying Mechanisms of Internal Mechanical Pain

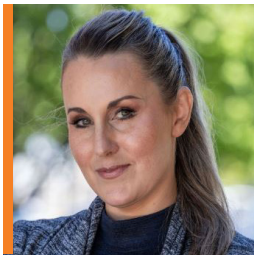
Kara Marshall started her lab at Baylor College of Medicine in 2022, after postdoctoral work in Ardem Patapoutian's lab at Scripps Research. Her lab studies how the brain senses mechanical force within the body, which is essential for many physiological functions. For instance, the sense of bladder fullness drives reflexes that govern urination, and stomach fullness sensing drives digestion. When these internal senses are impaired, it dramatically affects one's daily life. This is particularly true in the context of internal pain, where normal organ movements cause immense suffering. The Rita Allen Foundation Award in Pain is supporting Marsall's work to better understand how the sensory neurons that detect internal force are changed in inflammatory conditions to convey the sense of mechanical pain. During pathologies or inflammation, neurons that are normally silent become mechanically active to cause pain, but the mechanisms are unknown. Uncovering why these changes occur through genetic profiling could point toward new therapeutic targets for pain conditions.

KATE SADLER, PH.D. →

Assistant Professor,
Department of Neuroscience
University of Texas at Dallas

Project: Effects of Antbiotics on Nociceptive and Analgesic Circuits in the Gut

Kate Sadler completed her Ph.D. at Duquesne University and her postdoctoral training at the Medical College of Wisconsin. She joined the faculty at the University of Texas at Dallas in January 2023. The primary research interest of the Sadler Lab is understanding how microbiomes — the collections of microorganisms and metabolites living in or on the body — contribute to chronic pain conditions. Sadler and her team use a combination of behavioral, electrophysiological, and microbiological techniques to deconstruct the complex signaling that occurs between bacteria and sensory neurons in the peripheral nervous system. Using this approach, they recently determined that chronic sickle cell disease pain is driven, in part, by unique bacterial communities existing in the gut of sickle cell patients. The team identified both probiotic bacteria and host proteins that can be leveraged as novel analgesics for this condition. In addition to disease-specific investigations, Sadler is now studying the connection between antibiotic use and chronic pain susceptibility. She and her team are systematically assessing how different classes of antibiotic drugs prime the peripheral nervous system for chronic pain development.



VICTORIA E.G. ABRAIRA, PH.D. →

Assistant Professor,
Cell Biology and Neuroscience
Rutgers, The State University
of New Jersey

Project: Context is Key: How Spinal Cord Neuromodulators Scale the Pain Experience

Victoria E.G. Abraira completed her postdoctoral training with David Ginty at Harvard Medical School before joining the faculty at Rutgers University in 2018, where she currently serves as an Assistant Professor in the Department of Cell Biology and Neuroscience. Abraira's research focuses on understanding the neural mechanisms of somatosensory processing, with specific attention to how the spinal cord circuits integrate touch, pain, and proprioceptive information. The Rita Allen Foundation Award in Pain has enabled Abraira's lab to investigate how neuromodulators like oxytocin shape our somatosensory experiences. This work examines the hypothalamus-spinal cord axis, demonstrating how oxytocin modulates sensory perception across a valence spectrum, from pain to social touch. Through genetic identification, high-density recordings, and circuit mapping, her team has revealed mechanisms by which oxytocin influences spinal cord circuits to integrate multimodal sensory information and alleviate pain. Abraira has also received the 2025 Sloan Research Fellowship in Neuroscience, and grants from the Pew Charitable Trusts, Craig H. Neilsen Foundation, and Whitehall Foundation, and was recognized as a Kavli Fellow of the National Academy of Sciences.

SEUNGWON (SEBASTIAN) CHOI, PH.D. →

Assistant Professor, Psychiatry
University of Texas Southwestern
Medical Center

Project: Spinal Output Neurons: Novel Therapeutic Substrates for Treating Neuropathic Pain
In conjunction with Margaret and William R. Hearst III

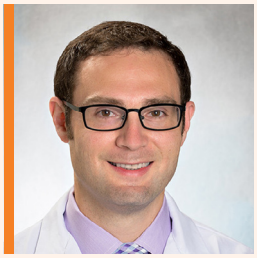
Seungwon (Sebastian) Choi was born and raised in South Korea, where he received both his B.S. and M.S. degrees from the Korea Advanced Institute of Science and Technology. He earned his Ph.D. at Harvard University, studying behavioral arousal and quiescence in *C. elegans* under the mentorship of Joshua Kaplan. As a postdoctoral fellow in David Ginty's lab at Harvard Medical School, he investigated ascending spinal pathways that transmit touch and pain signals to the brain. Choi joined the Department of Psychiatry at UT Southwestern Medical Center as an Assistant Professor in July 2022, and his lab focuses on the development, function, and dysfunction of ascending somatosensory pathways. The Rita Allen Foundation Award in Pain assisted his lab in generating essential preliminary data for his recently awarded NIH R01 grant on analysis of ascending spinal pain circuits.

EMERSON KROCK, PH.D. →

Assistant Professor, Faculty of Dental Medicine and Oral Health Sciences
McGill University

Project: Painful Fibromyalgia Autoantibodies Through Molecular Mimicry with Gut Microbiota

Emerson Krock received his B.A., B.Sc., and Ph.D. from McGill University. He then pursued his postdoctoral training with Camilla Svensson at the Karolinska Institute. His postdoctoral research focused on pain in autoimmune diseases, and he was particularly interested in satellite glia cells and how autoantibodies can cause pain in the absence of overt inflammation. Krock was also part of the team that identified a role for IgG autoantibodies in fibromyalgia pain. Now, his lab at McGill focuses on neuroimmune regulation of pain with the long term goal of identifying existing immunomodulatory drugs that can be repurposed for pain management. They combine approaches from neuroscience, immunology, and microbiology by utilizing animal models, human samples, and clinical data. Part of the group investigates how gut microbiome dysregulation in fibromyalgia patients leads to the development of painful autoantibodies. Another part of the lab explores how pain is regulated by immune cell remodeling of the extracellular matrix in the dorsal root ganglia. The Rita Allen Foundation Award in Pain allowed Krock to rapidly launch his research program and recruit multiple students to investigate the relationship between autoantibodies and the gut microbiome.



WILLIAM RENTHAL, M.D., PH.D. →

Associate Professor, Neurology
Harvard Medical School

Project: Targeted Gene Delivery to Trigeminal Nociceptors
In conjunction with Margaret and William R. Hearst III

William Renthal earned his M.D. and Ph.D., and completed his neurology residency at the University of Texas Southwestern Medical Center, and pursued a fellowship in headache medicine at Brigham and Women's Hospital. He also underwent postdoctoral research training in Michael Greenberg's laboratory at Harvard Medical School. In 2019, Renthal established an independent research laboratory at Brigham and Women's Hospital and Harvard Medical School, where he investigates the genomic and epigenomic mechanisms underlying chronic headache and pain. He serves as the Director of Research at the John R. Graham Headache Center at Brigham and Women's Hospital and as an Associate Professor of Neurology at Harvard Medical School. He also leads the Harvard PRECISION Pain Center, a collaborative network of pain clinicians and scientists dedicated to procuring phenotyped human pain-related tissues and characterizing their cell types and states using single-cell, multi-omic technologies. The Rita Allen Foundation Award in Pain has been instrumental in enabling Renthal to explore high-risk, innovative projects that leverage emerging technologies to address headache and pain disorders.

GREGORY CORDER, PH.D. →

Assistant Professor, Departments of Psychiatry, Neuroscience, and Anesthesiology
University of Pennsylvania

Project: Calibrating Nociceptive Dynamics in Midbrain Opiodergic Circuits

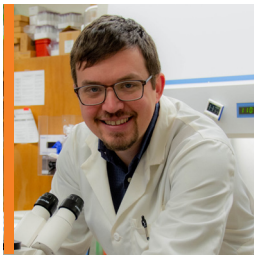
Gregory Corder completed his postdoctoral training under the mentorship of Grégory Scherrer at Stanford University, where he investigated the amygdala's role in the neural mechanisms of pain unpleasantness. In 2019, he joined the faculty at the University of Pennsylvania, where he leads a lab dedicated to uncovering the neural circuits and molecular pathways driving chronic pain and opioid addiction. Corder's research employs cutting-edge approaches — including in vivo calcium imaging, optogenetics, genomics, and advanced behavior modeling — to dissect the brain mechanisms underlying pain perception and affective disorders. Corder has received widespread recognition for his innovative contributions, including the NIH Director's DP2 New Innovator Award, multiple NIH R01 grants, and high-impact publications in journals such as *Nature Neuroscience*. His pioneering research continues to advance the understanding of pain chronification and inspire novel strategies, including gene therapies, for treating pain and opioid addiction. Funding from the Rita Allen Foundation Award in Pain has been pivotal in supporting his lab's work on the periaqueductal gray's role in placebo analgesia, providing key insights into endogenous opioid modulation and its therapeutic potential.

GWENDOLYN M. HOBEN, M.D., PH.D. →

Assistant Professor, Plastic Surgery
Medical College of Wisconsin

Project: Targeting Muscle Reinnervation Effects on Pain and Spontaneous Afferent Activity
In conjunction with Margaret and William R. Hearst III

Gwendolyn Hoben trained at Baylor College of Medicine and Rice University for her M.D. and Ph.D. in bioengineering, respectively. She completed her residency and post doctoral work on nerve regeneration at Washington University School of Medicine in St.Louis and did a hand and upper extremity surgery fellowship at the Medical College of Wisconsin. She has been an Assistant Professor in the Department of Plastic Surgery at the Medical College of Wisconsin since 2019. Her laboratory studies nerve transfers to better understand the mechanisms underlying amputation-related pain and improve outcomes for amputees. The Rita Allen Foundation Award in Pain has helped her lab develop new models to study amputation-related pain and develop a solid foundation for future grant support.



AARON D. MICKLE, PH.D. →

Associate Professor, Physiology
Medical College of Wisconsin

Project: Urothelial Cell to Sensory Neuron Signaling in Bladder Pain
In conjunction with Margaret and William R. Hearst III

Aaron Mickle received his Ph.D. in pharmacology from the University of Iowa under the mentorship of D.P. Mohapatra studying nociceptor sensitization in the context of metastasized cancer pain. He completed his postdoctoral research with Robert Gereau at Washington University in Saint Louis, where he collaborated with material, electrical, and biomedical engineers to develop closed-loop optogenetic based neuromodulatory technologies. Mickle is an Associate Professor in the Departments of Physiology, Urology, and Neurosurgery at the Medical College of Wisconsin. He currently leads a research program studying the neuronal mechanism of bladder dysfunction and pain. The focus of the Mickle lab is on developing better treatments for bladder disorders such as overactive bladder, bladder pain syndrome, and bladder dysfunction following spinal cord injury. The Rita Allen Foundation Award in Pain has allowed the lab to continue their work investigating the role of urothelial cells in bladder pain, played a crucial role in their continued work in this field, and led directly to an NIH R01 grant.

NICOLE N. SCHEFF, PH.D. →

Assistant Professor, Neurobiology
University of Pittsburgh

Project: CGRP: The Link Between Cancer Pain and Progression in Oral Squamous Cell Carcinoma

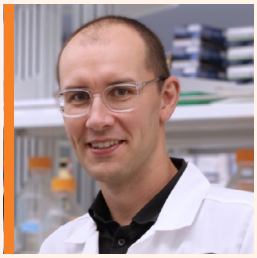
Nicole Scheff received her Ph.D. in neurobiology from the University of Pittsburgh under the mentorship of Michael Gold and completed a postdoctoral fellowship in cancer pain under the mentorship of Brian Schmidt at New York University College of Dentistry. After receiving a K99/R00 Pathway to Independence Award for career development from National Institute of Dental and Craniofacial Research, Scheff started her independent research career in 2020 at the Hillman Cancer Center, Department of Neurobiology at the University of Pittsburgh. Scheff's research program is focused on the role of pain and the peripheral nervous system on cancer progression. The lab seeks to integrate the neurobiology, immunology, and cancer biology fields to fully appreciate neural-immune-cancer communication and develop novel pain treatments that will also aid in fighting cancer. The lab executes translational research through collection of patient-reported outcomes and clinical specimens as well as reverse translation into preclinical mouse models. The Rita Allen Foundation Award in Pain has allowed the Scheff lab to uncover a role for sensory neurotransmission in cancer immunosurveillance and demonstrate that FDA-approved anti-migraine drugs can be repurposed to reduce cancer pain and improve the anti-tumor immunity in head and neck cancer.

ISHMAIL ABDUS-SABOOR, PH.D. →

Associate Professor, Biological Sciences, Zuckerman Institute, Columbia University, Freeman Hrabowski Scholar, Howard Hughes Medical Institute

Project: Discovering Behavioral Signatures of Pain at Millisecond Timescales
In conjunction with Open Philanthropy

Ishmail Abdus-Saboor earned his B.S. in animal science from North Carolina A&T State University in 2006 and his Ph.D. in cell and molecular biology from the University of Pennsylvania in 2012. He completed postdoctoral training at Weill Cornell and the University of Pennsylvania. He joined the faculty at the University of Pennsylvania in the Biology Department in 2018 as the Mitchell and Margo Blutt Presidential Assistant Professor. He joined Columbia University in 2021 and was promoted to Associate Professor in 2023. Harnessing mouse genetics, his lab is integrating the peripheral and central nervous systems, seeking to uncover genes and neural circuits for pain and somatosensation from the skin to the spinal cord and interconnected networks across the brain. They are elucidating the "skin-brain axis," taking a holistic approach that combines high-resolution behavioral mapping, brain and peripheral neuron imaging, and neural circuit manipulations. He is also a recipient of the Sloan Research Fellowship, Pew Biomedical Scholar Award, McKnight Scholar Award, One Mind Rising Star Award, and recipient of the Young Investigator Award from the Society for Neuroscience.



GEOFFROY LAUMET, PH.D. →

Associate Professor, Physiology
Michigan State University

Project: Cellular and Molecular Mechanisms Underlying Remission and Relapse of Pain

Geoffroy Laumet earned his Ph.D. from the Pasteur Institute, where he began exploring the intersections of immunology and neuroscience. He completed postdoctoral training at University of Texas MD Anderson Cancer Center under Hui-Lin Pan, Annemieke Kavelaars, and Robert Dantzer, focusing on how immune cells influence neuronal physiology and the development of chronic pain. His pioneering work demonstrated the critical role of T cells in resolving chronic pain. In 2019, Laumet joined Michigan State University as faculty in the Department of Physiology and Neuroscience. His lab investigates how neuro-immune communication regulates pain duration, showing that immune cells, such as T cells, release factors like interleukin-10 to directly modulate pain-sensing neurons and restore homeostasis after injury. Laumet's innovative research has earned significant recognition, including the Rita Allen Foundation Award in Pain, which expanded his work into new models of chronic pain and immune cell subtypes. His lab has since secured multiple NIH and U.S. Department of Defense grants to explore areas such as cancer pain, mast cell contributions to pain and allergy, and the neurobiology of pain-obesity comorbidities. Driven by curiosity and innovation, the Laumet lab remains at the forefront of neuro-immune communication research.

SARAH LINNSTAEDT, PH.D. →

Associate Professor,
Anesthesiology
University of North Carolina at
Chapel Hill School of Medicine

Project: FKBP51 Inhibition to Prevent Chronic Pain Following Traumatic Stress
In conjunction with Open Philanthropy

Sarah Linnstaedt joined the University of North Carolina at Chapel Hill as a faculty member in 2012, after completing her postdoctoral studies at Duke University. Her lab is focused on understanding genetic and molecular mechanisms of chronic pain development following traumatic stress exposures, with the goal of identifying vulnerability factors that predict risk for pain vs. recovery and therapeutic strategies that reduce chronic posttraumatic pain. The Rita Allen Foundation has been instrumental in helping Linnstaedt's lab generate pilot data for larger grant opportunities and has facilitated translational experiments demonstrating that physiological stress system regulators are key mediators of chronic pain development. Her lab has been fortunate to receive several subsequent awards following the Rita Allen Foundation Award in Pain, including an NIH HEAL Trailblazer Award and a Yang Family Biomedical Scholars Award.

ANDREW J. SHEPHERD, PH.D. →

Assistant Professor,
Symptom Research
University of Texas MD
Anderson Cancer Center

Project: Neuro-immune Interactions in Pain Associated with Cancer and Chemotherapy

Andrew Shepherd did his postdoctoral training in neuropharmacology with D.P. Mohapatra at the University of Iowa. Since joining MD Anderson Cancer Center in 2018, Shepherd's lab has focused on preclinical research investigating the mechanisms that link inflammation to the pain induced by various forms of injury, including diabetes, cancer, and chemotherapy-induced neuropathy, with an emphasis on signaling related to the renin-angiotensin system. The ultimate goal of the Shepherd Lab is to identify interventions that can mitigate or prevent the development of pain associated with these chronic disease states. Funding from the Rita Allen Foundation Award in Pain was instrumental in publishing the first description of a preclinical model of neuropathy induced by colorectal cancer, a previously overlooked source of damage to the peripheral nervous system. This project has continued to grow, leading to a follow-up study currently under review, and an R61 model development grant from the National Institute of Neurological Disorders and Stroke to refine and validate a mouse model of oxaliplatin-induced peripheral neuropathy.

MICHAEL D. BURTON →

Eugene McDermott Distinguished Associate Professor, Neuroscience
University of Texas at Dallas

Project: Novel Models to Assess Sufficiency of Single Cell Paradigms in CB1R-Analgesia

Michael Burton opened his lab at the University of Texas at Dallas in 2017. He is also a Founding Member of the Center for Advanced Pain Studies, and an affiliate member of the Center for Vital Longevity. He began his postdoctoral fellowship at University of Texas Southwestern Medical Center and UT Dallas in 2012. The Rita Allen Foundation Award in Pain helped him recruit a postdoctoral researcher and develop a novel molecular genetic rodent model to study cannabinoid 1 receptor (CB1R) in a cell-specific fashion. His lab strives to traverse the gap between our basic understanding of neuroimmune interactions in pain, motivational behaviors, and clinical application. His goal is to continue developing his leading research program and mentor highly motivated undergraduate, graduate, and postdoctoral trainees. His lab has published over 70 papers. He also contributes to works in the educational excellence space and was recently in the CSR working group to redesign NIH F fellowship application requirements. He co-directs two Undergraduate Research Programs at UT Dallas. He was named one of the 100 inspiring Black Scientists in America by Cell Mentor and received Congressional Recognition for Science Leadership by the U.S. House of Representatives in 2022.

MEAGHAN C. CREED, PH.D. →

Associate Professor, Anesthesiology
Washington University

Project: Synaptic Adaptations Underlying Affective Symptoms of Chronic Pain

Meaghan Creed earned her Ph.D. in Neuroscience and Pharmacology from the University of Toronto, before completing post doctoral training at the University of Geneva. Her research career has focused on reverse-engineering and optimizing neuromodulation therapies (deep brain stimulation) for treating neurological and psychiatric disorders. Since starting her lab at the Washington University Pain Center in 2018, her multidisciplinary team has focused on understanding the function of the basal ganglia, a collection of neural circuits involved in reward-guided decision making and behavior. The lab uses electrophysiology, single nucleus RNA sequencing, and behavioral phenotyping in mice and humans to understand how chronic pain and opioid medications change the function of basal ganglia circuits, and how these circuit changes lead to cognitive-affective symptoms of chronic pain and opioid use disorder. The Rita Allen Foundation Award in Pain allowed her team to ask why some individuals who experience an injury are able to take pain medication as prescribed, while others transition to medication misuse or develop chronic pain. The ultimate goal is to translate this understanding into new neuromodulation therapies for chronic pain and opioid use disorder. Her work is supported by the National Institute on Drug Abuse and the National Institute of Neurological Disorders and Stroke.

PETER M. GRACE, PH.D. →

Associate Professor and Chair *ad interim*, Symptom Research
University of Texas MD Anderson Cancer Center

Project: Antibody Receptor Signaling via Astrocytes: A New Pathway for Neuropathic Pain
In conjunction with Open Philanthropy

Peter Grace completed his Ph.D. in pharmacology at the University of Adelaide, and a National Health and Medical Research Council of Australia CJ Martin postdoctoral fellowship at the University of Colorado Boulder. He joined MD Anderson Cancer Center as faculty in 2016. Grace has received the Robert Ader New Investigator Award from the PsychoNeuroImmunology Research Society. He is a section editor for *Brain Behavior and Immunity* and *Pain Reports*, and is a standing member of the NIH Neurobiology and Pain and Itch study section. His laboratory is funded through the NIH, U.S. Department of Defense, and foundations. The Grace laboratory investigates neuroinflammatory mechanisms of chronic pain and its control. These studies have identified new drug targets for pain, leading to the founding of ImmunoLogic Inc. to develop non-opioid therapeutics. A major focus is on autoimmune mechanisms of neuropathic pain. His work has identified insufficient engagement of repair mechanisms after peripheral nerve injury, leading to B cells activation and differentiation into antibody producing cells. These antibodies in turn activate macrophages via Fc gamma receptors, with work ongoing to determine how macrophages hyperexcite sensory neurons. The mechanistic insights gained are being used to identify and develop new interventions to prevent and treat pain driven by autoimmune mechanisms.

JORDAN G. MCCALL, PH.D., M.P.H. →

Associate Professor, Anesthesiology
Washington University

Project: Using Persistent Homology to Model and Predict Spontaneous Pain Behavior
In conjunction with Open Philanthropy

Jordan McCall is an Associate Professor of Anesthesiology in the Center for Clinical Pharmacology at Washington University in St. Louis. Following a postdoctoral fellowship with Rob Gereau, McCall started his multidisciplinary lab in 2017 to understand the neural mechanisms underlying the emotional distress associated with traumatic events such as chronic pain, stress, and substance use disorder. The long-term goal of the McCall laboratory is to take basic, circuit-level neuroscience research on endogenous neuromodulatory systems, such as the central noradrenergic and opioid systems, to identify new therapeutic strategies. In practice, the McCall lab helps achieve this goal through basic neuroscience discovery and by developing new neural interfacing technologies and novel behavioral paradigms. The Rita Allen Foundation Award in Pain directly supported one of these projects to identify new pain-related phenotypes in rodent models and helped launch the McCall lab into the pain field. The lab is now supported by multiple NIH R01 grants to investigate noradrenergic mechanisms of pain relief. In addition to his research endeavors, McCall co-directs a medical school elective, "Science, Medicine and Societal Effects of Pain," which integrates basic, preclinical pain science with practical experiences in the clinical treatment of pain.

VIVIANNE TAWFIK, M.D., PH.D. →

Associate Professor, Department of Anesthesiology, Perioperative and Pain Medicine
Stanford University

Project: The Spinal Determinants of Arthritis Pain: Role of Microglia and P2X7 Receptors
In conjunction with Open Philanthropy

Vivianne Tawfik completed her undergraduate degree at McGill University, followed by her M.D./Ph.D. at Dartmouth Medical School. She trained as an anesthesiologist and pain medicine physician at Stanford University, where she also completed postdoctoral work with Grégory Scherrer and David Clark. She joined the faculty at Stanford in 2017 and runs a clinically informed basic science lab focused on the immune contribution to persistent pain while also caring for patients suffering from chronic pain. Her lab uses a variety of approaches, from single cell sequencing to complex behavioral paradigms in mouse pain models, to investigate the contribution of spinal cord microglia and astrocytes to the transition from acute to chronic pain. The Rita Allen Foundation Award in Pain launched Tawfik's career, allowing her the opportunity to obtain preliminary data that was used to secure her first R-level NIH grant. She is the recipient of the James E. Cottrell, M.D., Presidential Scholar Award from the American Society of Anesthesiologists, and a McCormick and Gabilan Faculty Fellowship at Stanford. She is currently an Associate Professor and Vice-Chair of Research - Basic Science in the Department of Anesthesiology at Stanford.

HELEN LAI, PH.D. →

Associate Professor, Neuroscience
University of Texas Southwestern Medical Center

Project: Understanding the Molecular and Developmental Basis of Painlessness

Helen Lai completed her postdoctoral training with Jane Johnson at UT Southwestern Medical Center, where she investigated neuronal cell fate mechanisms in the developing spinal cord. In 2015, Lai established her own lab at UT Southwestern Medical School to study the development and circuitry of the somatosensory system. Her research focuses on the transcription factor PRDM12, which has been linked to congenital insensitivity to pain. With the help of the Rita Allen Foundation Award in Pain, her lab identified PRDM12 as a master regulator of the nociceptor cell fate in the dorsal root ganglion. Her team continues to study how this essential transcription factor changes function over time, and is developing ways to leverage its specific expression to target nociceptors. Lai is also a recipient of an NIH BRAIN Initiative Cell Atlas Network award to create transcriptomic, epigenomic, spatial transcriptomic, and 3D volumetric atlases of the developing mouse spinal cord. She hopes these atlases will serve as a foundational resource for the spinal cord research community.

CANDICE PAULSEN, PH.D. →

Assistant Professor, Molecular Biophysics and Biochemistry
Yale School of Medicine

Project: Uncovering the Regulation of TRPA1 by Irritants, Cofactors, and Proteins

Candice Paulsen earned her bachelor's degree in genetic biology from Purdue University in 2006 and her Ph.D. in chemical biology in the lab of Kate Carroll at the University of Michigan and the Scripps Research Institute in Jupiter, Florida. She studies redox regulation of signal transduction cascades important to cancer. As a postdoctoral fellow with David Julius at University of California, San Francisco, she determined the first structures of an important pain receptor, TRPA1, by cryo-EM. Today in the Paulsen Lab, she combines her diverse training to inform a multidisciplinary approach to understand how TRPA1 is regulated and dysregulated by novel natural variants and through protein-protein interactions. This work is carried out with an eye toward discovering what a pain receptor "sees" in a cellular context, how those molecules can modulate its activity basally, and how those interactions may be modified to contribute to the development of chronic pain and inflammation.

KYLE BAUMBAUER, PH.D. →

Assistant Professor, Anesthesiology, Pain and Perioperative Medicine, Department of Cell Biology and Physiology
University of Kansas Medical Center

Project: Targeting ASIC3 for Disruption of Nociceptor Sensitization Following Spinal Cord Injury

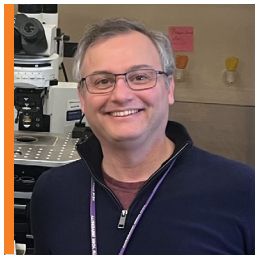
Kyle Baumbauer earned his bachelor's degrees in psychology and sociology from the University of Central Florida. He then earned both his M.A. and Ph.D. in experimental psychology at Kent State University. He completed postdoctoral fellowships at Texas A&M University in Behavioral and Cellular Neuroscience, and in Neurobiology at the University of Pittsburgh Medical School in the Pittsburgh Center for Pain Research. In 2014, he became an Assistant Professor in the Center for Advanced Management of Pain in the School of Nursing at the University of Connecticut until 2019 when he joined the faculty in the Department of Cell Biology and Physiology at the University of Kansas Medical Center. Baumbauer's research focuses on understanding 1) how communication between the central and peripheral nervous systems contribute to the development and persistence of pain after spinal cord injury, and 2) the mechanisms that prevent pain chronicity after inflammation and nerve injury. The goal of his work is to develop mechanism-based therapeutics.

ARKADY KHOUTORSKY, PH.D. →

Associate Professor, Anesthesia and Faculty of Dental Medicine and Oral Health Sciences
McGill University

Project: Extracellular Matrix-Mediated Spinal Cord Plasticity in Neuropathic Pain

Arkady Khoutorsky completed his postdoctoral training at McGill University under the supervision of Nahum Sonenberg, investigating the role of protein synthesis regulation in pain. He joined McGill's Alan Edwards Centre for Research on Pain as a faculty member in 2016. The Arkady lab aims to elucidate the cellular and molecular mechanisms underlying pathological pain using animal models. His research focuses on how cell-type-specific regulation of gene expression, particularly at the translational level, modulates nociceptive circuits and contributes to pain. The lab is also dedicated to understanding neuroimmune interactions in the spinal cord and periphery, examining the roles of the extracellular matrix, the meningeal lymphatic system, and cellular communication in modulating synaptic transmission, neuronal excitability, and pathological pain. Another active area of research in the lab is the role of the gut microbiota in chronic pain conditions, including fibromyalgia and complex regional pain syndrome, conducted in collaboration with clinical colleagues.



STEVE DAVIDSON, PH.D. →

Associate Professor,
Molecular Pathobiology
New York University

Project: Thalamo-limbic Circuit Control of Pain

Steve Davidson received postdoctoral training in pain neurobiology and patch clamp electrophysiology with Robert Gereau at Washington University in St. Louis where he also helped to kick start tissue recovery and physiological investigations of the human peripheral nervous system. In 2015, he was hired as an Assistant Professor in the Department of Anesthesiology at the University of Cincinnati College of Medicine. There, Davidson opened a lab to train early career neuroscientists and work on the dueling projects of pain signaling in thalamocortical brain circuits and the translational neurobiology of human nerves. In 2021, he became Associate Professor with tenure and Associate Director of the Neuroscience Graduate Program. In 2024, Davidson was recruited to New York University as Associate Professor of Molecular Pathobiology and Associate Director of the NYU Pain Research Center. The mission of his lab is to advance translational medicine for pain relief and nerve regeneration through the recovery of gifted human donor tissues. The Rita Allen Foundation Award in Pain was critical to allowing the Davidson lab to tackle multiple scientific problems and strategically guide effort to the research with the greatest impact for the field.

ROBERT SORGE, PH.D. →

Professor, Psychology
University of Alabama at Birmingham

Project: Immune System Modulation of Pain via Diet

Robert Sorge grew up in a country hamlet in southern Canada and currently lives and works in Birmingham Alabama, where he and his family have numerous animals and gardens. He completed his Ph.D. at Concordia University and completed two postdoctoral fellowships at McGill University studying addiction and pain. His pain research at the University of Alabama at Birmingham has spanned sex/gender differences, immunity, and diet across rodents and humans. He has taught an annual pain class to undergraduate and graduate students since 2013 and enjoys it every year. He also acts as the Co-Director of the Undergraduate Neuroscience Program.

YI YE, PH.D. →

Associate Professor, Translational Center and NYU Pain Research Center
College of Dentistry, New York University

Project: The Role of Schwann Cells in Neural Invasion and Associated Cancer Pain

Yi Ye's postdoctoral work focused on characterizing cancer-derived mediators that activate and sensitize nociceptors, contributing to oral cancer pain. Upon starting her independent research career, she expanded her focus to investigate the crosstalk between tumor microenvironment and peripheral nerves, which not only drives cancer progression and pain but also influences cancer's response to treatment. The Ye lab is particularly interested in identifying shared mechanisms underlying cancer and pain, with the goal of discovering therapeutic targets that can suppress pain without compromising cancer treatment. The Rita Allen Foundation Award in Pain supported pivotal preliminary experiments that identified a critical role of Schwann cells in oral cancer invasiveness and associated neuropathic pain. These findings subsequently enabled the lab to secure two major NIH grants to further explore Schwann cells' involvement in cancer perineural invasion and chemotherapy-induced painful neuropathies.

GRÉGORY SCHERRER, PHARM.D., PH.D. →

Associate Professor, Cell Biology and Physiology, Pharmacology, Neuroscience Center
University of North Carolina at Chapel Hill

Project: Molecular Mechanisms of Opioid-Induced Analgesia, Tolerance, and Hyperalgesia

Grégory Scherrer earned his Pharm.D. and Ph.D. from the University of Strasbourg, and completed postdoctoral training at the University of California, San Francisco and Columbia University. He joined the Stanford University faculty in 2012 before moving to the University of North Carolina at Chapel Hill in 2019. He is an Associate Professor at UNC-Chapel Hill in the Departments of Cell Biology and Physiology, Pharmacology, and the Neuroscience Center. Scherrer's research focuses on the sensory, emotional, and cognitive dimensions of pain and opioid effects, including analgesia and addiction. His lab has made key discoveries, including identifying opioid receptors in nociceptors as drivers of opioid tolerance (*Nature Medicine*, 2017, funded by the Rita Allen Foundation Award in Pain), a neural ensemble encoding pain unpleasantness (*Science*, 2019), a cingulate cortico-ponto-cerebellar circuit for placebo analgesia (*Nature*, 2024), and a chemogenetic system for peripheral neuron modulation (*Cell*, 2024). His work has been recognized with awards such as the New York Stem Cell Foundation Robertson Investigator Award, the Brain Research Foundation Scientific Innovations Award, the McKnight Foundation Neurobiology of Brain Disorders Award, and the NIH HEAL Initiative Director's Award for Excellence in Research. His long-term goal is to apply these insights to develop safer, more effective treatments for pain and opioid addiction.

TUAN TRANG, PH.D. →

Professor, Faculty of Veterinary Medicine
University of Calgary

Project: The Spinal Determinants of Arthritis Pain: Role of Microglia and P2X7 Receptors

Tuan Trang obtained his Ph.D. in Pharmacology and Toxicology from Queen's University before completing a Canadian Institutes of Health Research Fellowship at SickKids Hospital in Toronto. In 2012, he joined the Faculty of Veterinary Medicine and Cumming School of Medicine at the University of Calgary, where he is now a Professor and Associate Dean of Faculty Affairs and Development. He also serves as the Lead of the Spinal Cord, Nerve Injury, and Pain team and Director of the Alberta Pain Research Network. His research focuses on uncovering the genetic, cellular, and circuit-level mechanisms underlying chronic pain. As the CEO of AphioTx Inc., Trang is actively developing non-opioid therapeutics to manage opioid use disorder and withdrawal. The Rita Allen Foundation Award in Pain was instrumental in establishing his research program, providing critical early support that helped position his team for subsequent awards and grants. Beyond funding, the award connected him to an exceptional network of colleagues in Canada and the United States. Trang remains deeply grateful for this support, which was a key catalyst in shaping his career.

REBECCA P. SEAL, PH.D. →

Professor, Neurobiology and Otolaryngology
Pittsburgh Center for Pain Research, University of Pittsburgh School of Medicine

Project: Mechanical Pain Circuits in the Dorsal Horn

Rebecca Seal earned her Ph.D. at the Vollum Institute, Oregon Health and Science University. Her work is focused on delineating the neural circuitry that drives behavior in health and disease. She aims to discover fundamental principals and mechanisms of the nervous system as well as identify novel treatment strategies for nervous system disorders, particularly chronic pain and the motor symptoms of Parkinson's disease. Her lab is currently studying central circuits that underlie chronic pain and developing a novel therapeutic that targets the dorsal horn circuitry. In addition to being a Rita Allen Pain Scholar, she is a recipient of the NARSAD Young Investigator Award from the Brain and Behavior Research Foundation, an Innovation Award from the American Diabetes Association, a Japanese Society for the Promotion of Science Fellowship, and a Whitehall Foundation Research Award. She is Chair of the Editorial Board of the Pain Research Forum and Scientific Director of the Pain Beat Podcast Series.

REZA SHARIF NAEINI, PH.D. →

Professor, Physiology
McGill University

Project: Role of Parvalbumin Neurons in the Dorsal Horn Pain Circuits

Reza Sharif Naeini completed his first postdoctoral training on ion channel biophysics in France and a second training at the University of California, San Francisco in the lab of Allan Basbaum. He was recruited as a full-time faculty member at McGill University in 2012, where his lab studies novel peripheral sensors of pain stimuli, as well as the spinal cord networks activated by these signals. Sharif benefited early on from the support of the Rita Allen Foundation Award in Pain, which allowed him to launch his ambitious research program. Since then, he has obtained other awards including the Pain Research Award from the Canadian Pain Society, and is now the Director of the McGill Pain Center.

MICHAEL JANKOWSKI, PH.D. →

Professor and Vice Chief for Research, Anesthesia
Cincinnati Children's Hospital Medical Center

Project: Molecular Mechanisms of Muscoloskeletal Pain after Ischemic Tissue Injury

Michael Jankowski is a Professor and Vice Chief for Research in the Department of Anesthesia at Cincinnati Children's Hospital Medical Center. He is the Theodore W. Striker, M.D. Chair in Anesthesia Research and leads a program investigating the changing mechanisms of nociceptive processing across the lifespan with a focus on neuroimmune communication. Some of his discoveries include finding that peripheral growth hormone signaling to neurons not only modulates normal sensory development, but exogenous growth hormone may also be used as a potential therapy for pediatric pain. He has obtained a U.S. patent to develop this technology. He is the recipient of numerous awards from the NIH and U.S. Department of Defense that support his research, which began as early as his pre-doctoral training in 2006. The Rita Allen Foundation Award in Pain was essential for his continued success in research and allowed him to be named a Cincinnati Children's Trustee Scholar in 2013 and receive the Basic Science Research Achievement Award from Cincinnati Children's Hospital Medical Center in 2024. He is passionate about mentoring the next generation of neuroscientists. His lab's ultimate goal is to understand pain processing better to develop proper treatments.

SARAH E. ROSS, PH.D. →

Professor, Neurobiology and Anesthesiology and Perioperative Medicine, Center for Neuroscience
University of Pittsburgh

Project: Investigating the Neural Circuits of Itch and Pain

Sarah Ross earned her bachelor's degree at the University of Western Ontario and her Ph.D. at the University of Michigan. She then completed a postdoctoral fellowship at Harvard Medical School. In her lab at the Center for Neuroscience at the University of Pittsburgh, she studies the neural circuits that underlie pain, itch, and other homeostatic sensations. The goal of her work is to develop better treatments for millions of people worldwide who suffer from clinical conditions, particularly chronic pain, that result from maladaptive changes in neural circuitry. She uses 2P calcium imaging to visualize the activity in neurons carrying pain information, and uses viral tracing to characterize the connectivity of distinct neuronal subtypes. She also uses molecular genetic approaches to examine the effect of neuronal manipulation on mouse behavior.

E. ALFONSO ROMERO-SANDOVAL, M.D., PH.D. →

Professor, Anesthesiology
Wake Forest University
School of Medicine

Project: Spinal Cord Mechanisms in the Resolution of Postoperative Pain

Alfonso Romero-Sandoval completed his postdoctoral training at Wake Forest University and Dartmouth College Schools of Medicine, where he focused on neuroimmune interactions in pain and inflammation. He joined the full-time faculty at Wake Forest University School of Medicine in 2017 and currently serves as a Professor of Anesthesiology and Social Sciences and Health Policy. Romero-Sandoval's research investigates the mechanisms underlying chemotherapy-induced peripheral neuropathy, surgical and neuropathic pain, and the impact of cannabinoids on pain and immune function in cancer patients. Funding from the Rita Allen Foundation Award in Pain has been pivotal in advancing his lab's work on neuroimmune mechanisms in pain, providing critical insights that inform potential therapeutic strategies. This support has also enabled Romero-Sandoval to mentor more than 50 trainees, fostering the development of the next generation of pain scientists. His contributions to pain research have earned him recognition, including the prestigious Future Leaders in Pain Research grant, multiple invited lectures at international conferences, and leadership roles such as Co-Leader of the Symptom Science Transformational Team at the Wake Forest Comprehensive Cancer Center and member of the Board of Directors of the U.S. Association for the Study of Pain.

YUAN-XIANG TAO, M.D., PH.D. →

Professor and Vice Chair of Research, Anesthesiology
Rutgers New Jersey
Medical School

Project: Discovery of a Large Native Non-Coding RNA and Its Involvement in Neuropathic Pain

Yuan-Xiang Tao completed a postdoctoral fellowship at the University of Virginia Health Sciences Center in 1998 and then was a faculty member in the Department of Anesthesiology and Critical Care Medicine at Johns Hopkins University School of Medicine from 1999 to 2013, before he became a full Professor with tenure and Vice Chair of Research in the Department of Anesthesiology at Rutgers New Jersey Medical School. Tao's research focuses on understanding the molecular and cellular mechanisms that underlie chronic pain and opioid-associated disorders. The Rita Allen Foundation Award in Pain greatly helped him with novel and exciting project development. He also received the Faculty of the Year Award for Basic Science from New Jersey Medical School in 2017, the Excellence in Research Award from the New Jersey Health Foundation in 2017, the Rutgers Board of Trustees Award for Excellence in Research in 2020, and the Rutgers Chancellor Basic Science Researcher Award in 2021. Tao is a highly accomplished investigator and a leading authority in neuroscience and pain research. More than 190 scientific articles and invited reviews from his laboratory have been published in top-rated scientific journals, such as *Nature Neuroscience*, *Neuron*, *Advanced Science*, the *Journal of Clinical Investigation*, *Brain*, and *Nature Communications*.

SEENA K. AJIT, PH.D. →

Professor, Pharmacology & Physiology
Drexel University College of Medicine

Project: MicroRNA Regulation and Its Utility as Biomarkers in Neuropathic Pain

Seena Ajit followed a nontraditional career pathway, starting her career as part of Neuroscience Discovery Research at Wyeth Pharmaceuticals. Her research in the exploratory phase of drug discovery focused on the identification of novel targets and the development of pain therapeutics. In 2009, she transitioned to Drexel University College of Medicine. Ajit's research on advancing translational research focuses on non-coding RNAs, aiming to bridge the gap between fundamental discoveries and clinical applications. Specifically, the lab investigates the role of non-coding RNAs in circulation, how they mediate the molecular mechanisms underlying pain, and their utility as biomarkers in patients with complex regional pain syndrome (CRPS). The Rita Allen Foundation Award in Pain propelled the lab's research forward, allowing them to study miRNA alterations in CRPS patients. These findings served as a foundation for ongoing NIH-funded projects enabling the training of the next generation of scientists in pain research. The lab continues to investigate small extracellular vesicles (sEVs) mediated communications in the context of pain and the role of circulating and resident memory T cells in the development and maintenance of CRPS. They are currently studying macrophage-derived sEVs as a pain therapeutic for inflammatory pain, and repurposing FDA-approved drugs as novel immune-modulating therapies for CRPS.

DIANA BAUTISTA, PH.D. →

Professor of Cell Biology, Development and Physiology, Department of Molecular and Cell Biology, Division of Neurobiology
University of California, Berkeley

Project: Molecular Mechanisms of Somatosensory Mechanotransduction

Diana Bautista earned her bachelor's degree in environmental science at the University of Oregon and her Ph.D. at Stanford University in the lab of Richard Lewis. She completed a postdoctoral fellowship in the lab of David Julius at University of California, San Francisco. Today in her group at University of California, Berkeley, she works to decipher the neuroimmune interactions driving chronic itch, pain, and airway inflammation. She investigates the molecular and cellular mechanisms by which sensory neuron, airway epithelial cell, and immune cell interactions become dysregulated following injury, atopic disease, and infection. Her work involves studying clinically relevant disease models of skin and airway inflammation, including human and mouse models of airway inflammation and respiratory stress caused by inflammatory mediators and viral infection. Her team's use of multiple models and multiple species allows them to pursue the goal of defining a mechanistic framework for neuroimmune crosstalk in the development of inflammatory disease states. She received the 2014 Society for Neuroscience Young Investigator Award, a Howard Hughes Medical Institute Faculty Scholar award, a 2019 NIH Director's Transformative Research Award, and a 2021 Weill Neurohub Research Award. She is also a Howard Hughes Investigator.

STEVEN A. PRESCOTT, M.D., PH.D. →

Professor, Physiology and Biomedical Engineering
University of Toronto

Project: Pain Processing by Neural Networks: A Critical Link between the Molecular and Perceptual Changes

Steven Prescott completed his M.D./Ph.D. at McGill University, then moved to the Salk Institute for postdoctoral training in computational neuroscience. He established his own lab at the University of Pittsburgh in 2008 before moving back to Canada in 2012. He is now a Professor in Physiology and Biomedical Engineering at the University of Toronto and Senior Scientist at the Hospital for Sick Children. The Prescott lab synergistically combines computational methods with experimental techniques including electrophysiology, calcium imaging, and optogenetics to study how somatosensory information is normally processed, and how that processing is disrupted in chronic pain conditions. His lab recently developed RAMalgo, the Reproducible Automated Multimodal algometer, which combines robotics and machine learning to enable better pain behavior testing. His lab also studies homeostatic regulation, including how diverse ion channels are simultaneously adjusted to co-regulate different neuron properties. Such regulation is important for uncovering how and why neurons become hyperexcitable in chronic pain conditions and why channel-selective drugs fail to restore normal excitability, namely because ongoing changes in other channels can subvert the therapeutic effect. His lab brings together trainees from diverse backgrounds including the life sciences, engineering, physics, and math. Support from the Rita Allen Foundation helped kick start many of the projects that continue today.

TED PRICE, PH.D. →

Ashbel Smith Professor, Neuroscience
University of Texas at Dallas

Project: Translations Regulation as a Novel Paradigm for Understanding Nociceptor Sensitization and Developing Analgesic Targets

Theodore (Ted) Price completed his Ph.D. with Ken Hargreaves at University of Texas Health San Antonio and his postdoctoral fellowship with Fernando Cervero at McGill University. Price started his independent lab in 2007 at University of Arizona and moved to University of Texas at Dallas in 2014. He is Ashbel Smith Professor in the Department of Neuroscience at UT Dallas and Director of the Center for Advanced Pain Studies. Price's lab's goal is to identify molecular mechanisms causing chronic pain with emphasis on developing new drugs to treat pain. His lab's focus is on human molecular neuroscience with specialization on dorsal root ganglion and spinal dorsal horn. Price has published more than 200 peer reviewed studies, and has been continuously funded by NIH for more than 15 years. He is co-founder of many companies, including 4E Therapeutics.

ACKNOWLEDGEMENTS

The Rita Allen Foundation Scholars Award in Pain is offered in partnership with the U.S. Association for the Study of Pain. The Rita Allen Foundation supports two Pain Scholars each year, with appreciation for additional Scholars supported in select years by philanthropic partners, including Margaret and William R. Hearst III and Open Philanthropy.

We extend special gratitude for the efforts and insights of all those who have served on the Scholars Award in Pain selection review committee over the past 15 years.

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Cover image courtesy of 2019 Scholar Meaghan Creed, Ph.D. Expression of opioid peptide genes in individual basal ganglia neurons (image by LZ Fang, Ph.D., Creed Laboratory).

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