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Ishmail Abdus-Saboor, PhD
Associate Professor, Department of Biological Sciences
Principal Investigator, Zuckerman Mind Brain Behavior Institute
Freeman Hrabowski Scholar, Howard Hughes Medical Institute
Columbia University, 3227 Broadway, Quad 6C, New York, NY 10027

Personal

Born: Philadelphia, Pennsylvania USA. May 19, 1984; married, two children.

Positions

2025–present ***Associate Professor (tenured)***, Department of Biological Sciences, Columbia University

2023–present ***Freeman Hrabowski Scholar***, Howard Hughes Medical Institute

2023–2025 ***Associate Professor***, Department of Biological Sciences, Columbia University

2021–2023 ***Assistant Professor***, Department of Biological Sciences, Columbia University

2018–2021 ***Mitchell & Margo Blutt Presidential Assistant Professor***, Dpt. of Biology, University of Pennsylvania

Education

2014–2018 ***Postdoctoral Fellow***, Wenqin Luo Lab, University of Pennsylvania

2012–2014 ***Postdoctoral Fellow***, Ben Shykind Lab, Weill Cornell Medicine

2006–2012 ***Ph.D. in Cell and Molecular Biology***, Meera Sundaram Lab, University of Pennsylvania

2002–2006 ***B.S. in Animal Science*** (*summa cum laude*), North Carolina A&T State University

Honors and Awards

2025 NIH Pioneer Award (*perfect impact score of 10; activation forthcoming)
2025 Kavli-Grossman Scholar
2024 One Mind Rising Star Award
2024 50 Scientists that Inspire, 50th year anniversary of Cell
2023 Young Investigator Award, Society for Neuroscience
2023 HHMI Freeman Hrabowski Scholar
2023 McKnight Scholar Award
2022 Brain Research Foundation Award
2022 NIH New Innovator Award
2022 Chan Zuckerberg SDL Award
2022 Pew Biomedical Scholar
2021 Alfred P. Sloan Fellow
2021 Kavli Fellow, National Academy of Sciences
2020 Rita Allen Scholar
2018 Mitchell Max Award
2017 NIH Pathway to Independence Award
2015 Burroughs Wellcome Fund PDEP Fellow
2012 Tom Kadesch Prize in Genetics

Distinguished Lectureships

2025 Keynote Lecture, UAB School of Medicine, Neuroscience Center Retreat
2025 Wayne E. Crill Lecture, University of Washington
2025 Keynote Lecture, Young Memorial Symposium, Emory University
2024 Presidential Lecture, Simons Foundation
2023 Plenary Lecture, American Society for Cell Biology Annual Meeting
2023 SFNova Lecture, Society for Neuroscience Annual Meeting
2022 Keynote Lecture, University of Pennsylvania, Cell & Molecular Biology Grad Group Symposium
2018 Emerging Scholars Lecture, Vanderbilt University School of Medicine

Fellowships Awarded to Trainees

2025–2028 Leon Levy Scholar in Neuroscience to Yuki Haba (postdoctoral fellow)
2025–2033 HHMI Hannah Gray Fellowship to Sasha Fulton (postdoc to faculty fellowship)
2024–2027 HHMI-LSRF Fellowship to Briana Nixon (postdoctoral fellow)
2024–2027 Simons Junior Fellowship to Anastasia Zavitsanou (postdoctoral fellow)

2024–2027 Burroughs Wellcome Fund PDEP to Sasha Fulton (postdoctoral fellow)
2023–2024 NIH NRSA Predoctoral Fellowship to Justin Burdge (graduate student)
2023–2025 NIH D-SPAN Fellowship to Sasha Fulton (postdoctoral fellow)
2022–2024 Simons Junior Fellowship to Andre Toussaint (postdoctoral fellow)
2022–2024 Burroughs Wellcome Fund PDEP to Andre Toussaint (postdoctoral fellow)
2021–2022 NIH NRSA Predoctoral Fellowship to Melanie Schaffler (graduate student)
2020–2022 NIH NRSA Predoctoral Fellowship to Leah Elias (graduate student)

Teaching

Columbia University:
Instructor (75-100 students): BIOL UN3004 Neurobiology I: Cellular and Molecular Neurobiology (2022 – present)
Guest lecturer (graduate course): G4340: Survey of Neuroscience (2022 – 2025)
Guest lecturer (undergraduate course): BIO UN1908: First-Year Seminar in Biology (Fall 2023)
Guest lecturer (undergraduate course): BIO UN3041: Cell Biology (Fall 2023)
Guest lecturer (graduate course): G4100: Biology of Neurologic and Psychiatric Disorders (Spring 2023)
Guest lecturer (graduate course): BIOL GR9301: Pre-research seminar (Fall 2021)

University of Pennsylvania:
Instructor (150 students): BIOL 221: Molecular Biology and Genetics (2019 – 2021)
Guest lecturer (graduate course): NGG 588: Topics in Translational Neuroscience (Spring 2020)

Mentorship:

Current

Postdoctoral Fellows
1) 2024 – present Anna Zhukovskaya (Ph.D. Princeton University)
2) 2024 – present Yuki Haba (Ph.D. Princeton University)
3) 2023 – present Aleksander Kaplan (Ph.D. Hebrew University)
4) 2023 – present Briana Nixon (Ph.D. Cornell University)
5) 2023 – present Sasha Fulton (Ph.D. Mount Sinai Medicine)
6) 2022 – present Anastasia-maria Zavitsanou (Ph.D. New York University)

Doctoral Students
1) 2024 – present Viviana Vinci (Biological Sciences)
2) 2024 – present Yu-Young Wesley Tsai (Biological Sciences)
3) 2023 – present William Foster (Neurobiology & Behavior)
4) 2023 – present Preston Sheng (Biological Sciences)
5) 2023 – present Isabella Succi (Biological Sciences)
6) 2022 – present Brittany Bistis (Biological Sciences)

Undergraduates
1) 2025 – present Carolina Abascal, Neuroscience and Behavior
2) 2023–present Ashar Khan, Neuroscience and Behavior

Alumni (last known position)

Postdoctoral Fellows

1) 2022 – 2024 Andre Toussaint (Postdoctoral Fellow at Mount Sinai Medicine)
2) 2021 – 2024 Anissa Jhumka
3) 2018 – 2021 Heather Rossi (Senior Research Investigator at UPenn)

Doctoral Students
1) 2020 – 2024 Ryan Schwark (Curation Scientist, Fulgent Technologies)
2) 2020 – 2024 Justin Burdge (Postdoctoral Fellow at Rutgers University)
3) 2018 – 2022 Melanie Schaffler (Regular Writer at Novo Nordisk)
4) 2018 – 2022 Leah Elias (JCC Postdoctoral Fellow at Johns Hopkins University)

Technicians

1) 2023 – 2024 Alexis Knight (Clinical research associate at Columbia University)
2) 2022 – 2023 Victoria Saltz (PhD student at Columbia University)
3) 2021 – 2022 Jared Boyce (MD-PhD student at Wisconsin-Madison)
4) 2020 – 2022 Isabella Succi (PhD student in the Abdus-Saboor lab at Columbia University)
5) 2018 – 2021 William Foster (PhD student in the Abdus-Saboor lab at Columbia University)
6) 2018 – 2020 Jessica Jones (HHMI Gilliam Fellow and PhD student at University of Washington)

Undergraduates

1) 2024–2025 Simon Toney (technician in the Abdus-Saboor lab at Columbia University)
2) 2023–2025 Amanda Arnold (technician at Rockefeller University)
3) 2023–2025 Leah Yadessa (Intern at Pfizer)
4) 2023–2025 Sofia Marin-Quiros (tech startup)
5) 2023–2024 Olaedo Udensi
6) 2023–2024 Maximillian Comfere
7) 2022–2024 Jake Kothandaraman
8) 2022–2024 Melody Gomez
9) 2022–2024 Sarah Sorensen Ogata (Medical Assistant - Street Medic on Skid Row)
10) 2022–2024 Abednego Delinois (technician at Yale University)
11) 2023 –2024 Sevilla Duran (Master's student at Stanford University)
12) 2023–2024 Aishat Bakare
13) 2021–2024 Simon Ogundare (MD-PhD student at Columbia University)
14) 2022–2023 Alexis Knight (PhD student at University of Arizona)
15) 2022–2023 Jonathan Ettricks (R & D intern at Iveric Bio)
16) 2021–2023 Alexis Marshall (technician at Columbia University)
17) 2021–2023 Wadzanayi Michelle Mayiseni (post-bac at Yale University)
18) 2021–2023 Phaelen Chang (post-bac at Memorial Sloan Kettering)
19) 2019–2021 Justin Arnold (MD student at Northwestern University)
20) 2019–2021 Lucie Pham (MD student at Rutgers University)
21) 2019–2020 Samuel Kaufmann (Research Fellow at Silver Lining)
22) 2015–2019 Justin Burdge (PhD student in the Abdus-Saboor lab at Columbia University)
23) 2019 Emma Lu
24) 2018–2019 Migyana Thomas

Summer Interns

1) 2025 Sheldon Garrick II, Fordham University, HHMI SURP Intern
2) 2025 Lesley Iyamu, Columbia University; BUMP Intern
3) 2024 Tyla Mcaffitty, Howard University, EE Just Scholar
4) 2024 Jonathan Bryson-Harvey, Columbia University, SURF Intern
5) 2024 Joshua Samuels, St. Paul's School
6) 2024 Meley Haile, Columbia University; SPURS Intern
7) 2024 Marianna Liistro, University of Edinburgh
8) 2023 Zennetta Hinojosa, UT San Antonio, Leadership Alliance Intern
9) 2023 Noah Loran, University of Southern California, Leadership Alliance Intern
10) 2023 Misha Nair, Harvard University; SPURS Intern
11) 2023 Francesca Whitecross, Middlebury College
12) 2023 Alexa Cuvilly, high school student; BRAINYAC Scholar
13) 2023 James Reed, high school student; BRAINYAC Scholar
14) 2022 Teresa Osorio, Rutgers Camden University MARC Scholar. (PhD student at Johns Hopkins)
15) 2022 Adetokunboh Osineye, Morehouse College; EE Just Scholar
16) 2022 Ralph Anderson Jr., Morehouse College; EE Just Scholar
17) 2022 Ziad Eltabakh, LaGuardia High School; BRAINYAC Scholar
18) 2020 Kayla Dennis, Penn Lens program high school student
19) 2020 Camille Harrison, North Carolina A&T State University; SUIP intern (PhD student at UPenn)
20) 2020 Meghan Wachira, Rutgers Camden University; (post-bac at UPenn)
21) 2019 Isabella Succi, St. Joseph's University, (PhD student in the Abdus-Saboor lab at Columbia University)
22) 2019 Syphane Gibbs, North Carolina A&T U, SUIP intern; (PhD student at University of Virginia)
23) 2019 Racquel Amadi, Xavier University in Louisiana; DAPPG intern (Law student at Texas Southern U.)

24) 2019 Mariatu Fayia, Penn Lens program high school student (Masters student at Thomas Jefferson)

University Service

Columbia University

2024–present Member, PhD Graduate Committee, Department of Biological Sciences
2024 Member, Department of Neuroscience Chair Search Committee
2023–present Member, Executive Committee, Department of Biological Sciences
2023–present Faculty Advisor, BUMP Biology
2023 Organizer (with Laura Duvall), Department of Biological Sciences Annual Retreat
2021–2022 Faculty Search Committee, Zuckerman Mind Brain Behavior Institute

Graduate Student Qualifying Exam and/or Thesis Advisory Committees

Aniekan Umoren, 2025– present; Ruihuan Yu, 2025– present; Sherry Li, 2024– present; Valentine Andreu, 2023– 2024; Abby Wood, 2023– present; Nova Qi, 2022– present; Eliza Jaeger, 2021– present; Yasmin Ramadan, 2021– present; Aaron Limoges, 2021– 2024; Erin Jean, 2022– 2024; Brandon Bastien, 2020 – 2024; Michelle Klima, 2020 – 2022; Jessica Wojick, 2020; Melina Gyparaki, 2019 – 2021; Bishwas Sharma, 2019 – 2021; Luigim Cifuentes, 2019; Yongjun Li, 2019; Linyang Ju, 2019

Professional Service

Scientific Advisory Boards

2024–present Co-Founder and Scientific Consultant, Tactorum Inc.
2022–2025 Scientific Advisory Board, Doloromics Inc.
2022–present Advisory Board, Burroughs Wellcome Fund PDEP Postdoctoral Fellowship
2021–present Editorial Board, Neurobiology of Pain
2020–present Editorial Board, Cell Reports
2020–2023 Board of Reviewing Editors, eLife

Grant Review Panels

- ***Standing member***, NIH Neurobiology of Pain and Itch study section (2025 – 2029)
- ***Standing member***, HHMI Hannah Gray Fellowship (2024 – present)
- ***Ad hoc reviewer***, NIH R01 review panel for Neurobiology of Pain and Itch study section (2024)
- ***Ad hoc reviewer,*** NIH HEAL Initiative R01 review panel on “Discovery of Novel Pain Targets” (2023)
- ***Ad hoc reviewer***, NIH/NIDDK R01 review panel on “Mechanisms and Management of Pain” (2023)
- ***Ad hoc reviewer***, Simons Foundation Autism Research Initiative (SFARI) “Cross-Species Studies of ASD” (2023)
- ***Standing member***, Burroughs Wellcome Fund PDEP Postdoctoral Fellowship (2023 – present)
- ***Ad hoc reviewer***, NIH BRAIN Initiative R01 review panel (2022)
- ***Ad hoc reviewer***, Chan Zuckerberg Biohub Investigators San Francisco review panel (2021)
- ***Ad hoc reviewer***, NIH/NINDS F99/K00 Blueprint D-SPAN Award review panel (2020)
- ***Ad hoc reviewer***, Burroughs Wellcome Fund GDEP review panel (2019)

Meeting Organization

2024 Keystone Meeting: Mammalian Somatosensation (with Diana Bautista & Becky Seal)
2023 Northeast Pain Meeting (with Vanna Zachariou and Victoria Abraira)

Journal Reviewer

2018–present *Nature, Cell, Science, Neuron, Nature Neuroscience, Science Advances, Nature Communications, eLife, Cell Reports, Journal of Neuroscience, Pain, Nature Methods, etc.*

Grant Support

Pending grants

2025-2030 NIH/NIMH Research Project award (R01MH139796) $2,059,135/$3,419,275 (direct/total)
Role: PI “Determining the role of peripheral touch sensing neurons in stress response phenotypes”

2025–2030 NIH DP1 Pioneer Award (*perfect impact score; activation pending) $3,500,000 /$5,757,500 (direct/total)
Role: PI “Role of social touch and social memory in organizing naked mole-rat colonies”

Active grants

2025–2028 Kavli-Grossman Scholar Award $225,000 (direct)
Role: PI

2024–2027 One Mind Rising Star Award $300,000 (direct)
Role: PI "Activating neurons in the skin to relieve symptoms of chronic stress"

2023–2033 Freeman Hrabowski Scholar, Howard Hughes Medical Institute $8,600,000 (direct)
Role: PI "Neural circuits for somatosensation from mice to naked mole-rats"

2023–2026 McKnight Scholar Award $225,000 (direct)
Role: PI "Skin-brain axis for rewarding touch behaviors"

2023–2026 Ernest E. Just Faculty Mentor Award.. $437,283/$465,783 (direct/total)
Role: PI Awarded to IAS to fund a postdoc

2022–2025 NIH/NINDS DP2 New Innovator Award (DP2NS130454) $1,500,000/$2,467,500 (direct/total)
Role: PI "Using mouse pain scales to discover unusual pain sensitivity and new pain targets."

2022–2027 Chan Zuckerberg Initiative Science Diversity Leadership Award $1,000,000/$1,150,000 (direct/total)
Role: PI "Uncovering Peripheral and Central Neural Circuits for Inflammatory Pain"

2022–2026 Pew Scholar in the Biomedical Sciences $300,000 (direct)
Role: PI "Elucidating Pain Sensation and Emotion from Circuits to Cells to Genes"

Completed grants

2024–2025 Columbia University Cancer Center & Arts and Science (Co-PI: Yvon Woappi) $100,000 (direct)
Role: PI "Do sensory neurons in the skin drive wound memory to promote squamous cell carcinoma?"

2022–2024 Brain Research Foundation Seed Grant $80,000 (direct)
Role: PI "Investigating a skin-brain neuronal pathway for rewarding social touch."

2022–2023 Columbia University Provost Grant for Junior Faculty $30,000 (direct)
Role: PI "Does brain activity in the naked mole-rat govern cooperative social life?"

2021–2023 Alfred P. Sloan Research Fellowship in Neuroscience. $75,000 (direct)
Role: PI

2020–2023 Rita Allen Foundation Scholar in Pain Award $150,000 (direct)
Role: PI "Discovering behavioral signatures of pain at millisecond timescales."

2017–2021 NIH/NIDCR K99/R00 Pathway to Independence Award (DE026807) $1,116,555 (total)
Role: PI "Determining the functions of molecularly defined populations of nociceptors in spinal and dental pain."

2015–2018 Burroughs Wellcome Fund Postdoctoral Enrichment Program $60,000 (direct)
Role: PI "Defining the neural mechanisms mediating crosstalk between touch and pain."

2016–2017 Burroughs Wellcome Fund Collaborative Travel Grant $8,000 (direct)
Role: PI "Optogenetic and brain imaging investigation of pain neural circuitry." Co-I: Jin Lee, Stanford

2014–2017 NIH IRACDA Postdoc Fellowship (K12 GM081295) $190,488 (total)
Role: PI "Dissect neural mechanisms underlying the crosstalk between touch and pain."

Department Seminars and Conference Talks

2026
University of Pennsylvania, Distinguished Seminar Series, Cell & Developmental Biology Department
Janelia Conference: Functional Mapping of the Peripheral Nervous System

2025
New York University, Department of Molecular Pathobiology Seminar Series

Summer Conference on the Changing Brain. Beckman Center of the National Academies
Samsung Global Research Symposium: Brain-Body Interactions, Sweden
Columbia University Medical Center, Neuroscience Seminar Series
Summer Conference on the Changing Brain. Beckman Center of the National Academies
University of Lausanne, Switzerland. Department of Neuroscience Seminar Series
Lake Conference on Circuits Neuroscience: Sensation and Action. Lake Thun, Switzerland
Western University, Canada, Perspectives in Neuroscience Seminar Series
UC Berkeley, Neuroscience Seminar Series

2024
International Associate for the Study of Pain World Congress on Pain, Netherlands
88th Cold Spring Harbor Laboratory Symposium on Quantitative Biology: Brain Body Physiology
Cold Spring Harbor Laboratory, Neuroscience Seminar Series
Columbia University, Psychiatry Grand Rounds
UC Davis, Neuroscience Seminar Series
New York University, Interdisciplinary Pain Research Program Seminar Series
Keystone Meeting: Mammalian Pain and Somatosensation
Johns Hopkins University, Department of Neuroscience Seminar Series

2023
Columbia University, Integrative Animal Behavior Seminar Series
Barnard College, Department of Biological Sciences Seminar Series
Brown University, Neuroscience Seminar Series
Columbia University, Dermatology Grand Rounds
Columbia University, HICCC Cancer-relevant Chemistry and Biology Symposium
Mount Sinai School of Medicine: Brain and Body Lecture Series
Oregon Health & Science University, Neuroscience Futures Seminar Series
Stanford University, Wu Tsai Neuroscience Institute Seminar Series
Princeton University, Neuroscience Institute Seminar Series
Caltech, Chen Institute Neuroscience Symposium

2022
Yale University, Neuroscience Seminar Series
American College of Neuropsychopharmacology Annual Meeting
New York University, Department of Biology Seminar Series
UC Berkeley, Brain Imaging in the Bay Symposium
Rockefeller University, Symposium on the Social Brain
Albert Einstein College of Medicine, Neuroscience Seminar Series
Gordon Conference, Optogenetic Approaches to Neural Circuits and Behavior, Maine
Columbia University, Neurosurgery Grand Rounds
Washington University in St. Louis, Anesthesiology Research Seminar Series
Northwestern University, Department of Physiology and Pain Center Seminar Series
Karger J.B. Johnston Club Symposium, Evolving Intersecting Neural Circuits
Columbia University, Stavros Niarchos Foundation Lecture
Brandeis University, M. R. Bauer Foundation Colloquium Seminar Series
Columbia University, Frontiers in Engineering and Medicine, Symposium on Neuromodulation
University of Washington, Department of Biological Structure Seminar Series

2021
Penn State College of Medicine, Neural and Behavioral Sciences Department Seminar Series
Harvard University, Brain Science Initiative, Neurobiology of Pain Event
Johns Hopkins University, Department of Molecular and Comparative Pathobiology Seminar Series
Harvard Medical School, Department of Neurobiology Seminar Series
Johns Hopkins University, Blaustein Pain Grand Rounds
University of California San Francisco, Neuroscience Seminar Series
Brown University, Samuel M. Nabrit Conference for Early Career Scholars
Newcastle University (UK), Centre for Behaviour and Evolution Seminar Series
Brain Initiative Investigator's Meeting, Social Brain Symposium
Columbia University, Department of Biological Sciences Seminar Series

Salk Institute, Thursday Seminar Series
Williams College, Class of 1960 Scholar Speaker Series
University of Southern California, Neurobiology Seminar Series
Texas Pain Research Consortium, Seminar Series
George Washington University, IBS Neuroscience Seminar Series
University College London, Gatsby Computational Neuroscience Series
University of Chicago, Neuroscience Seminar Series
New York University School of Medicine, Marie Daly Speaker Series
Duke University, Department of Neurobiology Seminar Series
Allen Institute for Brain Science, Inaugural Black History Month Seminar Series
Middlebury College, Neuroscience Seminar Series
University of California San Diego, Neuroscience Seminar Series

2020
Northeastern University, Biology Colloquium
Washington University in St. Louis, Anesthesiology Research Seminar Series
Weill Cornell Medicine, Frontiers in Neuropsychiatry Seminar Series
University of Pittsburgh & Carnegie Mellon University, CNBC ERC Series
UT Health San Antonio, Department of Pharmacology & Center for Biomedical Neuroscience
Johns Hopkins University, Department of Biology Seminar Series
University of Iowa, Neuroscience Institute Seminar Series
University of Michigan, Department of Molecular, Cell, Developmental Biology
Johns Hopkins University, Department of Biochemistry and Molecular Biology
Columbia University, Zuckerman Institute, Breakthroughs in Neuroscience Series
National Institutes of Health, Animal Genetics Consortium
Drexel University, Department of Neurobiology and Anatomy Seminar Series
Georgetown University, Department of Pharmacology and Physiology
National Institutes of Health, Early Career Investigators in Addiction Neuro Series
Johns Hopkins University, Department of Pharmacology & Molecular Sciences
Stanford University & Chinese Academy of Sciences; Neuro Zoom
University of Virginia, Neuroscience Department, Inaugural Juneteenth Lecture
Rowan University, Molecular and Cellular Biosciences Seminar Series
Temple University, Neuroscience Seminar Series
Keystone Symposium: Pain: Aligning the Target, Colorado
University of Pennsylvania, Dermatology Research Seminar Series

2019
University of Pennsylvania, Neuroscience Graduate Group Public Lecture on Pain
University of Pennsylvania, Psychology Department Colloquium Series
Annual Biomedical Conference for Minority Students (ABRCMS), California
University of Texas at Dallas, School of Behavioral and Brain Sciences
Lasalle University, Department of Biology
University of Illinois at Chicago, Integrative Neuroscience Seminar Series
Fox Chase Cancer Center, Molecular Therapeutics Department
University of Pennsylvania, SUIP Faculty Research Seminar
University of Maryland Baltimore County, Departments of Biology; Chemistry/Biochemistry
University of Washington, Neuroscience Seminar Series
North Carolina A&T State University, Department of Biology
University of California Santa Cruz, Department of Molecular, Cell, Developmental Biology

2018
Rockefeller University, Sense to Synapse Conference
Gordon Conference, Molecular and Cellular Neurobiology, Hong Kong
St. Joseph's University, Department of Biology
University of Pennsylvania, Center for Neurobiology and Behavior Seminar
Mid-Atlantic Pharmacology Society Meeting, Philadelphia, PA
University of Pennsylvania, mindCORE Seminar Series
National Institutes of Health, Pain Consortium Symposium

Meharry Medical College, Department of Biochemistry and Cancer Biology
Bryn Mawr College, Chemistry Colloquia Series
Duke University, Department of Pharmacology
New York University, Department of Oral Surgery
University of Pennsylvania, Department of Biology

Media

- 50 Scientists that Inspire, 50th Year Anniversary Issue. **Cell** (2024)
- Podcast interview. From Lab to Life: The Science of Touch." **Pew Charitable Trusts** (2024)
- Q & A Feature interview. *"Pleasure or pain? He maps the neural circuits that decide*." **Quanta Magazine** (2024).
- *"Trailblazing neurobiologist studies the science of pleasure and pain"* **Columbia University** (2022). YouTube
- Q & A Feature interview. **Neuron** (2021)
- "Beyond the CV: Stories from Faculty." **University of Pennsylvania MindCORE**, 2021. YouTube
- Feature interview. *"The Science of Sensations"* **Penn Today** (2019)
- TV Feature and lab visit, **CBS News** (2018). *"Central High School Graduate Hoping to Make Impact with New Lab at Penn Medicine"* { https://www.youtube.com/watch?v=_DkApUni3MA }

PUBLICATIONS

Research Articles:

1. Burdge J, Jhumka A, Khan A, Ogundare S, Baer N, Fulton S, Kaplan A, Bistis B, Foster W, Thackray J, Toussaint A, Li M, Morizawa YM, Nazarian J, Yadessa L, George AJ, Delinois A, Mayiseni W, Loran N, Yang G, Margolis DJ, Abraira VE, **Abdus-Saboor I.** Remote automated delivery of mechanical stimuli coupled to brain recordings in behaving mice. bioRxiv (2025)

2. Fulton S, Bendl J, DiSalvo G, Fullard J, Al-Kachak A, Lepack A, Stewart A, Singh S, Poller W, Bastle R, Hauberg M, Fakira A, Patel V, Chen M, Durand-de Cuttoli R, Gameiro-Ros I, Cathomas F, Ramakrishnan A, Gleason K, Shen L, Tamminga C, Milosevic A, Russo S, Swirski F, Slesinger P, **Abdus-Saboor I**, Blitzer R, Roussos P, Maze I. Major-depressive-disorder-associated dysregulation of ZBTB7A in orbitofrontal cortex promotes astrocyte-mediated stress susceptibility. Neuron (in press)

3. Upadhyay A, Gradwell M, Vajtay T, Conner J, Sayal AA, Azadegan C, Patel KR, Thackray JK, Bohic M, Imai F, Ogundare S, Yoshida Y, **Abdus-Saboor I**, Azim E, Abraira V. The dorsal column nuclei scale mechanical sensitivity in naive and neuropathic pain states. Cell Reports 22;44(4):115556 (2025)

4. Liu D, Rahman M, Johnson A, Amo R, Tsutsui-Kimura I, Sullivan Z, Pena N, Talay M, Logeman BL, Finkbeiner S, Qian L, Choi S, Capo-Battaglia A, **Abdus-Saboor I**, Ginty DD, Uchida N, Watabe-Uchida M, Dulac C. A hypothalamic circuit underlying the dynamic control of social homeostasis. Nature 640(8060):1000-1010 (2025)

5. Sgourdou P, Schaffler M, Choi K, McCall N, Burdge J, Williams J, Corder G, Fuccillo M, **Abdus-Saboor I**, Epstein D. Impaired pain in mice lacking first order posterior medial thalamic neurons. Pain 166(1):130-143 (2025).

6. Schwark R, Ogundare O, Sheng P, Foster W, Chang P, Tsai Y-YW, Arnold A, **Abdus-Saboor I**. Social touch shapes communication and animal recognition in naked mole-rats. bioRxiv (2024)

7. Inclan-Rico JM, Napuri C, Lin C, Hung LY, Ferguson A, Wu Q, Pastore CF, Stephenson A, Femoe U, Rossi HL, Reed D, **Abdus-Saboor I**, Luo W, Herbert DR. MrgprA3 neurons drive cutaneous immunity against helminths through selective control of myeloid-derived IL-33. Nature Immunology 25(11):2068-2084. (2024)

8. Bohic M, Pattison L, Jhumka A, Rossi H, Thackray J, Ricci M, Foster W, Ogundare S, Twomey C, Hilton H, Arnold J, Mossazghi N, Yttri E, Tischfield, MA, Smith ESJ, **Abdus-Saboor I***, Abraira V*. Mapping the neuroethological signatures of pain, analgesia, and recovery in mice. Neuron 111(18):2811-2830 (2023)

9. Bashkirova E, Klimpert N, Monahan K, Campbell CE, Osinski J, Tan L, Schieren I, Pourmorady A, Stecky B, Barnea G, Xie XS, **Abdus-Saboor I**, Shykind B, Marlin BJ, Gronostajski R, Fleischmann A, Lomvardas S. Opposing, spatially-determined epigenetic forces impose restrictions on stochastic olfactory receptor choice. eLife 12:RP87445 (2023)

10. Elias L, Succi I, Schaffler M, Foster W, Gradwell M, Bohic M, Fushiki A, Upadhyay A, Ejoh L, Schwark R, Frazer R, Bistis B, Burke J, Saltz V, Boyce J, Jhumka A, Costa R, Abraira V, **Abdus-Saboor, I**. Touch neurons underlying

dopaminergic pleasurable touch and sexual receptivity. Cell 186, 577–590 (2023).

Elias et al. paper featured in 30 scientific and media outlets including these:

- "How sexual touch triggers pleasant sensations in mice." *Nature* 614, 10.
- "The power of social touch: How a loving caress really can ease anxiety." *Washington Post*.
- "Socio-sexual touch: On the hunt for pleasure signal in the mouse brain." *Current Biology*. 24;33(8)
- "You don't need words to calm a grumpy kid. Parents around the world use magic touch." *NPR*
- "Researchers find causality between pleasurable touch and sexual receptivity." *Le Monde*

11. Toussaint A, Foster W, Jones JM, Kaufmann S, Wachira M, Hughes R, Bongiovanni AR, Famularo ST, Dunham B, Schwark R, Karbalaei R, Dressler C, Bavley CC, Fried NT, Wimmer M, **Abdus-Saboor I**. Chronic paternal morphine exposure increases sensitivity to morphine-derived pain relief in male progeny. Science Advances eabk2425 (2022).

12. Schaffler M, Johnson M, Hing B, Kahler P, Hultman I, Srivastava S, Arnold J, Blendy J, Hultman R, **Abdus-Saboor, I**. A critical role for touch neurons in a skin-brain pathway for stress resilience. bioRxiv (2022)

13. Jones JM, Foster W, Twomey CR, Burdge J, Ahmed O, Pereira T, Wojick J, Corder G, Plotkin JB, **Abdus-Saboor I**. A machine-vision approach for automated pain measurement at millisecond timescales. eLife 9:e57258 (2020).

14. Rossi HL, See LP, Foster W, Pitake S, Gibbs J, Schmidt B, Mitchell CH, **Abdus-Saboor I**. Evoked and spontaneous pain assessment in a dental pulp injury model. Scientific Reports 17;10(1):2759 (2020).

15. Pitake S, Middleton LJ, **Abdus-Saboor I**, Mishra SK. Inflammation induced sensory nerve growth and pain hypersensitivity requires the N-type calcium channel Cav2.2. Front Neurosci 19;13:1009 (2019).

16. **Abdus-Saboor I**, Fried NT, Lay M, Burdge J, Swanson K, Fischer R, Jones J, Dong P, Cai W, Guo X, Tao YX, Bethea J, Ma M, Dong X, Ding L, Luo W. Development of a mouse pain scale using sub-second behavioral mapping and statistical modeling. Cell Reports 6;28(6):1623-1634 (2019).

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