CURRICULUM VITAE

Alison Xiaoqiao Xie, B.S., M.Sc., Ph.D.

1. Current Position Associate Professor
Department of Surgery, Division of Urology

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2. Education

2002 **B.S. in Biophysics**
Department of Biology, University of Science and Technology of China (USTC), Hefei, Anhui, P. R. China

2005 **M.Sc. in Neurobiology and Biophysics**
The School of Life Sciences, USTC, Hefei, Anhui, P. R. China

2011 **Ph.D. in Neuroscience**
University of California Riverside (UCR), Riverside, California (CA), USA

2011-2016 **Postdoctoral Training, Department of Pharmacology**
University of North Carolina (UNC) at Chapel Hill, Chapel Hill, North Carolina (NC), USA

3. Academic Appointments

2016-2017 **Research Assistant Professor**
Department of Pharmacology, School of Medicine, UNC at Chapel Hill, Chapel Hill, NC

2017-2019 **Instructor**
Department of Surgery, School of Medicine, University of Colorado Anschutz Medical Campus (CU Anschutz), Aurora, Colorado (CO)

2019-2025 **Assistant Professor**
Department of Surgery, School of Medicine, CU Anschutz, Aurora, CO

2025- **Associate Professor**
Department of Surgery, School of Medicine, CU Anschutz, Aurora, CO

4. Professional Positions

2001-2003 **Research Assistant**
Department of Biology, USTC, Hefei, Anhui, P. R. China

2003-2005 **Graduate Research and Teaching Assistant**
Department of Biophysics, School of Life Sciences, USTC, Hefei, Anhui, P. R. China

2006-2011 **Graduate Research and Teaching Assistant**
Neuroscience Graduate Program, UCR, Riverside, CA, USA

2011-2016 **Postdoctoral Research Associate**
Department of Pharmacology, School of Medicine, UNC at Chapel Hill, Chapel Hill, NC, USA

5. Honors, Awards, and Certificate

Scholarly

2005 **Dong-gang Scholarship**
USTC, the Graduate School

2016 **Young Investigator Award**
National Institutes of Health (NIH), Federation of American Societies for Experimental Biology (FASEB), Maximizing Access to Research Careers (MARC) Program

2022 **Best Poster Award**
American Urological Association (AUA)

2023 **Young Investigator Award**
Society of Basic Urologic Research (SBUR)

2024 **Faculty Professionalism Award**
Department of Surgery, School of Medicine, CU Anschutz

Teaching and Mentoring

2011 **University Teaching Certificate**
UCR, the Graduate Division

2014 **Excellence in Mentoring Undergraduates**
UNC at Chapel Hill, the Postdoctoral office

2023 Outstanding Mentorship Award (nomination)
Women in STEM (WiSTEM) Mentorship Program, CU Anschutz

2024 Center for the Improvement of Mentored Experiences in Research **(CIMER) facilitator certification**

2025 Research Mentor Award (nomination)
CU Anschutz

Leadership and Community Engagement

2022 **Leadership, Empower & Engage, Authenticity & Awareness, Diversity (LEAD),** Department of Surgery, CU Anschutz

2022-2023 **Women's Leadership** training, School of Medicine, CU Anschutz

2024-2025 **Striving Towards Excellence Program (STEP),** Department of Surgery, CU Anschutz

2025-2026 **Advanced Leadership Development (LEAD 2.0),** Department of Surgery, CU Anschutz

2025-2026 **Community Engagement & BOND Mentoring,** Office of Access and Engagement, CU Anschutz

2026 **HEAL Foundations of Inclusive Excellence,** Office of Access and Engagement, CU Anschutz

2026 **The Importance & Challenges of Considering SABV in Research,**
Experimental Design Considerations in SABV Research,
Sex as a Biological Variable in the Conduct of Research,
University of Colorado System

2026 **Researcher Management and Leadership,**
University of Colorado System

6. Professional Affiliations

Graduate Program

Neuroscience Graduate Program (NSP), CU Anschutz, Aurora, CO
Integrated Physiology Graduate Program (IPHY), CU Anschutz, Aurora, CO
Medical Scientist Training Program (MSTP), CU Anschutz, Aurora, CO

Centers and Institutes

Center for Glial-Neuronal Interactions, UCR, Riverside, CA
Center for NeuroScience (CNS), Aurora, CO
Colorado Clinical & Translational Sciences Institute (CCTSI), Aurora, CO
Ludeman Family Center for Women's Health Research, CU Anschutz, Aurora, CO
Gates Institute, Aurora, CO

Professional Societies

Society of Neuroscience (S*f*N)
American Society of Neurochemistry (ASN)
International Society of Neurochemistry (ISN)
American physiological Society (APS)
American Urological Association (AUA)
South Central Section (SCS) of the AUA
Society for Basic Urologic Research (SBUR)

7. Professional Leadership and Service

Departmental and interdepartmental

University of North Carolina at Chapel Hill

2013-2016	Mentor for undergraduate research
2013, 2015	Mentor for the Carolina Summer Fellowship Program, Department of Pharmacology

University of Colorado, Anschutz Medical Campus

Department and Division

2022-	Research Advisor, Urology Resident Research Program, Division of Urology
2025, 2026	Judge, Surgery Research Symposium, Department of Surgery

Graduate Programs

2023-2025 Steering Committee, Neuroscience Graduate Program (NSP)
2023-2024 Co-chair, Annual Retreat Symposium, NSP
2024-2025 Chair, Annual Retreat Symposium, NSP
2024-2026 Admission Committee, NSP

Graduate School

2024- Steering Committee, Academy of Research Mentoring Educators (ARME)
2025, 2026 CIMER facilitator, ARME
- As a CIMER facilitator, I worked with other facilitators to provide the 8-hour long "Entering mentoring" twice a year to CU Anschutz faculty.
2026 Review Committee, Dean's Doctoral Mentoring Award

Mentoring and Other Activities

2022-2026 Mentor, Women in STEM (WiSTEM) Mentorship Program
2022, 2024 Judge, Undergraduate Summer Research Symposium
2024, 2026 Judge, Postdoc Research Day, School of Medicine
2024, 2025 Volunteer, Ludeman Family Center for Women's Health Research, Youth Career Day, Aurora, CO
2025 Volunteer, Center for Health Equity, "Healing the Divide" Community Campus Forum, Aurora, CO
2026 Mentoring workshop facilitator, "Mentor/Mentee Communication and Setting up Expectations", the Cancer Center, PIKE-PREP, CU Anschutz, Aurora, CO

National and international

2019/05 Member, Neuroscience in Urology Think Tank, National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), NIH, Rockville, MD
2022/09 Moderator, Reconstruction/Neurourology Poster Session, South Central Section (SCS) of the AUA Meeting, Coronado, CA
2024/04 Co-chair, Foundational Science Session "Peripheral glia take center stage in autonomic functions", American Physiological Summit (APS). Long Beach, CA
2024/04 Chair, Scientific symposium "The roles of satellite glial cells during development and diseases". ASN Meeting, Portland, OR.
2026/04 Chair, Scientific symposium "The role of sensory ganglionic glia and peripheral neuroimmune interactions in persistent pain - from omics to function". ASN Meeting, St Charles, MO.

Community/Scientific Education

2008-2014 TED transcriber and translator (English, Mandarin)
- Generate English captions for TED talks and subsequently translate them into traditional/simplified Chinese. Subtitles.

2018-Present Judge, Denver Metro Regional Science and Engineering Fair
- Judge poster presentations of middle and high school students.

8. Professional Development

2022 Leadership, Empower & Engage, Authenticity & Awareness, Diversity (LEAD) training, Department of Surgery, CU Anschutz
- Training program for developing leadership identity.

2022-2023 Women's Leadership training, School of Medicine, CU Anschutz
- Selected from all School of Medicine Assistant Professors to receive career development training, including a two-day bootcamp, monthly workshops, and networking events.

2024 CIMER facilitator training, Graduate School, CU Anschutz
- Selected from all School of Medicine faculty to receive mentoring facilitators training. The trainees received level one facilitator certificate and were tasked to implement mentorship training at CU Anschutz.

2024-2025 Striving Towards Excellence Program (STEP) training, Department of Surgery, CU Anschutz
- Aligned with the departmental mission of "Enlightening Tomorrow's Leaders", this 10-module training program assisted faculty in developing five essential skills: Communication, Collaboration, Coaching, Change Management, and Credibility.

2025-2026 Advanced Leadership Development (LEAD 2.0) training, Department of Surgery, CU Anschutz
- This one-year course strengthened resilience and leadership skills and revisited core LEAD topics through table discussions. Main topics included burnout, imposter phenomenon, executive presence, and self-care strategies for leaders.

2025-2026 Community Engagement & BOND Mentoring, Office of Access and Engagement, CU Anschutz
- Monthly mentor-mentee meetings on career development and community engagement, plus 10 group discussions among peers.

2026 HEAL Foundations of Inclusive Excellence, Office of Access and Engagement, CU Anschutz

- Fostering action and leadership through education related to factors that impact access and health outcomes, this program consists of 4 in-person training modules, including historical context and core concepts of inclusive excellence, cognitive bias, strategies to be an effective ally, and the socio-ecological model to provide a framework for identifying potential actions to improve access, engagement, and health outcomes.

9. Review, Referee, and Editorial Activities

Editorial Board

2022- Review Editor, Frontiers in Pain Research
Frontiers in Systems Neuroscience

2026- Guest Associate Editor, Frontiers in Pain Research, Special Topic "Beyond the Neuron: Glial and Immune Mechanisms in Visceral and Pelvic Pain".
- This special topic focuses on the role of glial and immune cells in pelvic and visceral pain conditions, such as interstitial cystitis, irritable bowel syndrome, and endometriosis. It also highlights sex differences in pain mechanisms.

Manuscript Review

Cell Reports
American Journal of Physiology - Regulatory, Integrative and Comparative Physiology
American Journal of Physiology – Physiological Genomics
Frontiers in Pain Research
Frontiers in Immunology
Frontiers in Systems Neuroscience
Frontiers in Molecular Neuroscience
Journal of Pain research
Journal of Visualized Experiments (JoVE)

Study Sections

2019- Reviewer, CCTSI Pilot Grant Program

2022 Reviewer, NIH/Center for Scientific Review (CSR), Renal/Urological Sciences, Small Business Activities Special Emphasis Panel

2023 Reviewer, NIH/NIDDK, Kidney and Urological Systems Function and Dysfunction study section

2024 Reviewer, NIH/CSR, Neurobiology of Pain and Itch study section

2026 Reviewer, NIH/Center for Scientific Review (CSR), Urological Sciences, Small Business Activities Special Emphasis Panel

10. Lectures, Presentations, Workshops

2014/07 Cold Spring Harbor Laboratory, Glia in Health & Disease Meeting, Cold Spring Harbor, NY. "Ganglionic GFAP+ glia regulate cardiovascular function via Gq-GPCR activation"

2016/03 ASN Annual Meeting, Denver, CO. "Gq-GPCR Signaling in Sympathetic Satellite Glial Cells Regulate Cardiovascular Functions in vivo"

2016/04 UNC at Chapel Hill, Department of Pharmacology Retreat Symposium, Chapel Hill, NC. "Gq-GPCR Signaling in Sympathetic Satellite Glial Cells Regulate Cardiovascular Functions in vivo"

2016/09 UNC at Chapel Hill, Department of Pharmacology Research Seminar, Chapel Hill, NC. "Targeting sympathetic satellite glial cells for treating cardiovascular diseases.

2016/04 Duke University, Neuroimmunology and Glia Group Retreat Symposium, Durham, NC. "Gq-GPCR Signaling in Sympathetic Satellite Glial Cells Regulate Cardiovascular Functions in vivo"

2017/10 University of Colorado (CU) Boulder, Integrative Physiology Graduate Program, Research Seminar, Boulder, CO. "DREADD the Glia: Pharmacogenetic Approaches for Studying the Role of GFAP+ Glia in Physiology and Disease"

2018/05 AUA Annual Meeting, San Francisco, CA. "VEGF-induced bladder nerve remodeling and visceral hyperalgesia in bladder pain"

2020/10 SCS of AUA Annual Meeting, Virtual. "Lumbar-sacral neuromodulation alleviates visceral pain and improves lower urinary tract symptoms in animal model of urological chronic pelvic pain syndrome"

2021/09 AUA Annual Meeting, Virtual. "Sensory glial Gq-GPCR signaling alleviates visceral pain and improves micturition function in an animal model of urological chronic pelvic pain syndrome"

2021/10 CU Anschutz Department of Anesthesiology, Faculty Seminar, Aurora, CO. “The analgesic role of peripheral GFAP+ glia in vivo”

2022/01 CU Anschutz Neuroscience Graduate Program, Faculty Seminar, Aurora, CO. “Peripheral glia modulation of autonomic control: from heart to bladder”

2022/09 SCS of AUA Annual Meeting, Coronado, CA. “Modulation of Sensory Glia Gq-GPCR Signaling in vivo Affects Spontaneous Voiding and Bladder Function in an Animal Model of Chronic Pelvic Pain”

2023/05 AUA Annual Meeting, Chicago, IL. “Manipulating peripheral glial signaling to treat pelvic pain”

2023/10 CU Anschutz Department of Surgery, Retreat Symposium, Aurora, CO. “Satellite Glial Cells Regulate Bladder Functions and Pain”

2023/11 Johns Hopkins University Department of Biology, Baltimore, MD. “Probing the roles of satellite glial signaling in vivo and in physiology”

2023/11 CU Anschutz Department of Surgery, Division of Urology, Urology Resident Research Seminar, Aurora, CO. “Research strategies and experimental models used in basic and translational urology research”

2024/01 CU Anschutz Department of Surgery, Division of Urology, Urology Resident Research seminar, Aurora, CO. “Peripheral Glial Signaling Modulates Micturition and Bladder Pain”

2024/03 CU Anschutz Department of Surgery, Division of Urology Grand Rounds, Aurora, CO. “The neural (and glial) regulation of bladder functions”

2024/04 American Physiology Summit, Long Beach, CA. "Satellite glial regulation of bladder function and pain"

2024/04 ANS Annual Meeting, Portland, OR. “The analgesic role of satellite glial signaling in bladder sensory ganglia and chronic pelvic pain”

2024/09 CU Anschutz Integrative Physiology Graduate Program, Faculty Seminar, Aurora, CO. “The Role of GFAP+ Glia in bladder functions”

2024/10 CU Anschutz, Neuroscience Graduate Program, Retreat Symposium, Estes Park, CO. “Satellite glial regulation of bladder functions”

2025/04 CU Anschutz, Department of Anesthesiology, Faculty seminar, Aurora, CO. “Molecular and cellular sexual dimorphism in dorsal root ganglia and its implications for visceral pain”

2025/08 CU-CSU Summit, Denver, CO. “A pelvic ganglia-bladder ex vivo model for studying neural control of micturition”

2025/10 CU Anschutz Department of Surgery, Retreat Symposium, Aurora, CO. “Sensory ganglionic glia as key drivers of visceral pain”

2025/11 CU Anschutz Integrative Physiology graduate Program, Retreat Symposium, Aurora, CO. “Gaining new insights into pelvic pain using RNA profiling”

2026/02 Michigan State University Department of Physiology, Faculty Seminar, East Lansing, Michigan. “Sex-Specific mechanisms of chronic pelvic pain revealed by transcriptomic and glial-specific translatomic profiling of dorsal root ganglia”

2026/02 Society for Urodynamics, Female Pelvic Medicine and Urogenital Reconstruction (SUFU) Meeting, Young Investigator Spotlight, San Juan, Puerto Rico. “Sensory ganglionic glia as key drivers of visceral pain”

2026/03 CU Anschutz. Glia Gathering, Aurora, CO. “Sensory satellite glial cells: from form to function”

2026/04 ASN Annual Meeting, St. Charles, MO. “Sensory ganglionic glia as key drivers of visceral pain”

2026/05 CU Anschutz, Division of Urology Grand Rounds, Aurora, CO. “Insights on UCPPS phenotypes from the MAPP network research studies”

11. Teaching Record

Courses and lectures

University of Science and Technology of China

2004 Teaching Assistant, Zoology Experiments

University of California, Riverside

2008-2009 Teaching Assistant, Introduction to Cell and Molecular Biology Lab
2010 Teaching Assistant, Genetics

2010 Teaching Assistant, Introduction to Neuroscience
2009-2011 Instructor, Neuroscience Laboratory
2010-2011 Teaching Assistant, Cellular Neuroscience: Membrane and Synaptic Phenomena
2009, 2011 Instructor, Human Reproduction and Sexual Behavior

University of Colorado

2023-2024 Instructor, Urology Resident Research Conference
2024, 2026 Instructor, Urology Grand Rounds

Certificate

2011 **University Teaching Certificate**
the Graduate Division, UCR

12. Mentoring Record (for Trainees)

University of North Carolina at Chapel Hill

2013 **Shailja Admin**, Undergraduate Student, Department of Biology
2013/06-07 **Jakovin J. Lee**, Carolina Summer Fellowship Program, Undergraduate Student, Department of Biology
2013-2014 **Jakovin J. Lee**, Undergraduate Student, Department of Biology
2014-2016 **Jakovin J. Lee**, B.S., Professional Research Assistant. Department of Pharmacology
2014 **Brook Teffera**, Undergraduate Student, Department of Biology
2014 **Miles Herr**, Undergraduate Student, Department of Biology, Department of Music, and Department of Computer science
2015/06-07 **David Reich**, Carolina Summer Fellowship Program, Undergraduate Student, Department of Biochemistry and Molecular Biology, Brown University.
2015 **Stephanie K. Yu**, Undergraduate Student, Department of Computer science, Department of Biology, and Department of Physics
2016 **Esther Y. Lee**, Undergraduate Student, Department of Biology.
2016 **Dante N. Duncan**, Undergraduate Student, Department of Chemistry.
2016 **Tanya Qureshi**, Undergraduate Student, Department of Biology.
2016 **Angelo Chaia**, Undergraduate Student, Department of Chemistry.

University of Colorado

2018-2019 **Kelly P. Smith**, B.S., Master Student, Department of Bioengineering, College of Engineering, Design and Computing, CU Anschutz

2022-2023 **Jin Cha**, B.S., Professional Research Assistant, Department of Surgery, School of Medicine, CU Anschutz

2022- **Sathish Kumar Yesupatham**, Ph.D., Postdoctoral Research Associate, Department of Surgery, CU Anschutz
- Sathish has been promoted to Research Associate in 2026.

2024 **Alyssa Granley**, Undergraduate student research assistant, Department of Molecular, Cellular, and Developmental Biology, CU Boulder.
- Alyssa first worked in the lab via the Colorado Research Experiences (CORE) program during summer months, then stayed as an research assistant over the Fall semester. She has since graduated from CU Boulder with a B. S. and is currently a graduate student in the Department of Cell & Developmental Biology (CMDB) at CU Anschutz.

2024-2026 **Emmett Spreitzer**, Undergraduate student research assistant, Department of Neuroscience, CU Boulder.
- Emmett has since graduated from CU Boulder with a B. S. and is currently a graduate student in the Modern Human Anatomy (MHA) Master Program at CU Anschutz.

2025 **Trinity Wright**, Undergraduate research assistant, Department of Psychology and Neuroscience, Regis University.

2025- **Sara Sherman**, Postdoctoral Research Fellow, Linda Crnic Institute for Down Syndrome, CU Anschutz.
- I am Sara's co-mentor in the T32 program "Integrative Physiology of Aging" (Division of Geriatrics)

2026 **Eshaan Yendamuri**, Rock Canyon High School.

Women in STEM (WiSTEM) mentorship program

2022-2023 **Kayla Janevski**, B.S., PA-II.
Ester Oh, Ph.D., Postdoctoral Fellow, Division of Renal Diseases and Hypertension

2023-2024 **Aubrianna Gholar**, B.A., Master student, MHA Master Program
Aurélie Ledreux, Ph.D., Associate Professor, Department of Neurosurgery

2024-2025 **Emma Shelby**, B.S., Medical Student, Class of 2027
Isabella Tyler, B.S., Graduate Student, NSP

2025-2026 **Haley Colling**, B.S., Professional Research Assistant, Department of Pediatric Gastroenterology
Madison X. Rodriguez, B.S., Graduate Student, Barbara Davis Center for Diabetes

2026-2027 **Breanna Bishop,** B.S., Graduate Student, Pharmacology and Molecular Medicine Training Program

Thesis mentor

2025-2026 **Spreitzer, Emmett**, Department of Neuroscience, CU Boulder.
- Served as the primary mentor on the honor Thesis: "Developing a novel pelvic ganglion-bladder *ex vivo* preparation for studying neural control of micturition"

Thesis committee

2024-2025 **Lowe, Samantha**, Biomedical Engineering Master student, CU Boulder
- Thesis mentor: Sarah Calve, Ph.D. Associate Professor of Mechanical Engineering, Materials Science and Biomedical Engineering, University of Colorado, Boulder

2024-2026 **Garcia Gonzalez, Paola**, Toxicology PhD student, CU Anschutz
- Thesis mentor: Manisha Patel, Ph.D. Associate Dean for Research and Graduate Studies, Professor of CU School of Pharmacy

Workshop for students

2026 "Mentor/Mentee Communication and Setting up Expectations"
CU Anschutz, School of Medicine, the Cancer Center, PIKE-PREP

13. CIMER-Based Research Mentoring Workshop (for Faculty)

Certificate

2024- CIMER Level 1 facilitator certification

Workshops for faculty

2025/03 "Entering mentoring" CIMER training (8 hours) to CU Anschutz faculty
2025/10 "Entering mentoring" CIMER training (8 hours)
2026/05 "Entering mentoring" CIMER training (8 hours)
2026/10 "Entering mentoring" CIMER training (8 hours)

Leadership

2024- **Steering Committee, ARME**
Graduate School and Postdoctoral Office

Awards and nominations

2014 **Excellence in Mentoring Undergraduates**
Office for Postdoctoral Affairs, UNC at Chapel Hill

2023 Outstanding Mentorship Award (nomination)
Women in STEM (WiSTEM) Mentorship Program, CU Anschutz

2025 CU Anschutz Research Mentor Award (nomination)

14. Research Grants

Ongoing Awards (PI)

1. National Disease Research Interchange (NDRI)/HTORR Pilot Award
   "Probing the sensory ganglionic neuroimmune mechanisms driving pelvic sensitization in human dorsal root ganglia"
   09/01/2026-08/31/2028
   - This project provides 10 human specimens.

Pending Annoucement (PI)

2. NIH/NIA/NIGMS R21
   - *Submitted in June 2026*

   "Pelvic ganglia neuromodulation for on-demand, catheter-free urination"
   4/1/2027-3/31/2029
   Direct cost: $275,000

3. Foundation for Women's Wellness, Research Award (*Submitted in April 2026*)
   "Heightened immune responses to pelvic inflammation drive chronic pelvic pain in females"
   1/1/2027-12/31/2027
   Direct cost: $25,000

4. Department of Veterans Affairs, Scientific Review and Management (ISRM) Pilot Project Award (*Submitted in September 2026)*
   "Pelvic Neuromodulation for On-demand, Catheter-free Urination in Veterans"
   6/1/2027-5/31/2029
   Direct cost: $230,000

5. Foundation for Women's Health, Research Award (*Submitted in August 2026)*
   "Estrogen Signaling and Endogenous Pelvic Pain Control: A New Framework for Female-Specific Chronic Pelvic Pain Mechanisms"
   1/1/2027-12/31/2028
   Direct cost: $300,000

Completed research funding (PI)

6. Colorado Pilot Program Mentored Award, Colorado Clinical and Translational Sciences Institute
   "Beyond the neurons: the role of peripheral glia in neurogenic bladder dysfunction"
   03/01/2019-02/29/2020
   Direct cost: $30,000
   - How satellite glial Gq-GPCR activation modulates visceral sensitivity.

7. Academic Enrichment Fund, Department of Surgery, School of Medicine
   "The role of mechanosensitive TREK-1 channels in detrusor overactivity and voiding dysfunction in patients with overactive bladder (OAB)"
   09/01/2020-08/30/2021
   Direct cost: $40,000
   - Whether TREK-1 contributes to idiopathic detrusor overactivity.

8. NIH/NIDDK R01 DK129260
   "Activating Peripheral Glia to Relieve Visceral Pain in Animal Models of Urological Chronic Pelvic Pain Syndrome (UCPPS)"
   08/05/2021-05/31/2026
   Direct cost: $1,100,000
   - How sensory satellite glia regulate visceral pain symptoms.

9. Ludeman Center Early Career Faculty Research Development Award
   "Sex differences in sympathetic glial regulation of blood pressure"
   09/01/2023-10/31/2024
   Direct cost: $25,000
   - Sexual dimorphism in sympathetic glial regulation of blood pressure.

10. CCTSI Translational Methods Award
    "Development of a murine pelvic ganglia-bladder preparation for the study of glial control of micturition"
    08/01/2024-07/31/2025
    Direct cost: $30,000
    - Developing an MPG-bladder ex vivo experimental model enabling optogenetic manipulation in ganglionic neurons and glia.

Completed research funding (Key Personnel)

11. NIH/NINDS R21 NS081589 (McCarthy)
    9/01/2012 – 8/31/2014
    Direct cost: $270,000
    - GFAP+ glial modulation of cardiovascular functions.

12. NIH/MH R01 MH099564 (McCarthy)
    "Function of Astrocytic GPCR Signaling Cascades in Physiology and Mental Illness"
    6/01/2013 – 5/31/2017
    Direct cost: $1,368,000
    - Developing mouse models expressing engineered GPCRs driven by intersectional gene activation.

13. NIH/NIDDK R01 DK121506 (Malykhina)
    "Regulation of pelvic pain and micturition reflex by VEGF in urological chronic pelvic pain syndrome"
    08/01/2019-07/30/2022
    Direct cost: $600,000
    - How VEGF signaling pathways contribute to neural plasticity in lower urinary tract.

14. NIH/NIDDK R01 DK116648 (Malykhina)
    "Mechanisms of neurogenic voiding dysfunction in a viral murine model of multiple sclerosis"
    09/08/2020-8/30/2023
    Direct cost: $600,000
    - The neural mechanisms of lower urinary tract symptoms in an animal model of multiple sclerosis induced by mouse hepatitis virus (MPV).

15. Bibliography

Thesis

2022 **Bachelor of Science, Biophysics**
"Effects of different stimulation modes on short-term synaptic plasticity of visual cortex in adult rats"

2005 **Master of Science, Neurobiology and Biophysics**
"The function of visual cortex neurons of different age rats"

2011 **Doctor of Philosophy, Neuroscience**
"Bidirectional scaling of astrocytic metabotropic glutamate receptor signaling following long-term changes in neuronal synaptic transmission"

Peer-Reviewed Publications

Research as trainee

2004 Jia F, **Xie X**, Zhou Y. "Short-term depression of synaptic transmission from rat lateral geniculate nucleus to primary visual cortex in vivo". Brain Research. doi: 10.1016/j.brainres.2004.01.001

2005 **Xie X**, Wang H, Chen B, Zhou Y. "Neural response characteristic of neuron to flashing stimulus in visual cortex of young rats". Progress in Biochemistry and Biophysics. 2005,32(11):1088-1092

2005 Jia F, Wei H, Li X, **Xie X**, Zhou Y. "Short-term synaptic plasticity in the rat geniculo-cortical pathway during development in vivo". Neuroscience Letters. doi: 10.1016/j.neulet.2005.12.054

2006 Wang H, **Xie X**, Li X, Chen B, Zhou Y. "Functional degradation of visual cortical cells in aged rats". Brain Research. doi: 10.1016/j.brainres.2006.09.010

2009 Carson MJ, Crane J, **Xie AX**. "Modeling CNS microglia: the quest to identify predictive models". Drug Discovery Today: Disease Models. Doi: 10.1016/j.ddmod.2008.07.006

2012 **Xie AX**, Sun MY, Murphy T, Lauderdale K, Tiglao E, Fiacco TA. "Bidirectional scaling of astrocytic metabotropic glutamate receptor signaling following long-term changes in neuronal firing rates". PLoS One. doi: 10.1371/journal.pone.0049637

2013 Sun MY, Devaraju P, **Xie AX**, Holman I, Samones E, Murphy TR, Fiacco TA. "Astrocyte calcium microdomains are inhibited by bafilomycin A1 and cannot be replicated by low-level Schaffer collateral stimulation in situ". Cell Calcium. doi: 10.1016/j.ceca.2013.10.004

2013 Agulhon C, Boyt KM, **Xie AX**, Friocourt F, Roth BL, McCarthy KD. "Modulation of the autonomic nervous system and behaviour by acute glial cell Gq protein-coupled receptor activation in vivo". Journal of Physiology. doi: 10.1113/jphysiol.2013.261289

2014 **Xie AX**, Lauderdale K, Murphy T, Myers TL, Fiacco TA. "Inducing plasticity of astrocytic receptors by manipulation of neuronal firing rates". Journal of Visualized Experiments. doi: 10.3791/51458

2015 **Xie AX**, Petravicz, J, McCarthy KD. “Molecular approaches for manipulating astrocytic signaling in vivo”. Frontier in Cellular Neuroscience. doi: 10.3389/fncel.2015.00144

2016 Annis RP, Swahari V, Nakamura A, **Xie AX**, Hammond SM, Deshmukh M. “Mature Neurons Dynamically Restrict Apoptosis via Redundant Pre-Mitochondrial Brakes”. the FEBS Journal. dio: 10.1111/febs.13944

2017 **Xie AX***, Lee JJ, McCarthy KD. “Ganglionic GFAP+ Glial Gq-GPCR Signaling Enhances Heart Functions in vivo”. ***Corresponding author**. Journal of Clinical Investigation Insight. 2017;2(2):e90565. doi: 10.1172/jci.insight.90565.

2017 **Xie AX***, Chaia A, McCarthy KD. “Targeting sympathetic glia for treating cardiovascular diseases”. ***Corresponding author**. Receptors and Clinical Investigation. 2017;4:e1572. doi: 10.14800/rci.1572.

<u>PI-led and Collaborative Research</u>

2019 **Xie AX†**, Pan XQ†, Meacham RB, Malykhina AP. “The Expression of Transcription Factors Mecp2 and CREB Is Modulated in Inflammatory Pelvic Pain”, Frontiers in Systems Neuroscience. †Equal contribution. doi: 10.3389/fnsys.2018.00069.

2020 **Xie AX***, Madayag A, Minton SK, McCarthy KD, Malykhina AP. “Sensory Satellite Glial Gq-GPCR Activation Alleviates Inflammatory Pain via Peripheral Adenosine 1 Receptor Activation”. ***Corresponding author**. Scientific Reports. Sci Rep. 2020 Aug 25;10(1):14181. doi: 10.1038/s41598-020-71073-z

2021 **Xie AX†*,** Taves S†, McCarthy KD. “Nuclear factor Kappa B-COX2 pathway activation in non-myelinating Schwann cells is necessary for the maintenance of neuropathic pain in mice”. ***Corresponding author**. †Equal contribution. Frontiers in Cellular Neuroscience. doi: 10.3389/fncel.2021.782275

2021 Iguchi N, Carrasco A Jr, **Xie AX**, Pineda RH, Malykhina AP, Wilcox DT. (2021) “Functional constipation induces bladder overactivity associated with upregulations of Htr2 and Trpv2 pathways”. Scientific Reports. doi: 10.1038/s41598-020-80794-0.

2022 Clarkson TC, Iguchi N, **Xie AX**, Malykhina AP. “Differential transcriptomic changes in the central nervous system and urinary

bladders of mice infected with a coronavirus". PLoS ONE. doi: 10.1371/journal.pone.0278918

2022 **Xie AX**, Iguchi N, Clarkson TC, Malykhina AP. "Pharmacogenetic inhibition of lumbosacral sensory neurons alleviates visceral hypersensitivity in a mouse model of chronic pelvic pain". PLoS ONE. doi: 10.1371/journal.pone.0262769

2024 **Xie AX†**, Iguchi N†, Malykhina AP*. "Long-term follow-up of TREK-1 KO mice reveals the development of bladder hypertrophy and impaired bladder smooth muscle contractility with age". American Journal of Physiology, Renal Physiology. †Equal contribution. doi: 10.1152/ajprenal.00382.2023.

2025 Yesupatham SK, Malykhina AP, **Xie AX***. "Transcriptome Profiling Suggest Molecular Sexual Dimorphism in Lumbosacral Dorsal Root Ganglia and Sex-specific Mechanisms Underlying Visceral Pain". ***Corresponding author**. Physiological Genomics. doi: 10.1152/physiolgenomics.00066.2025

2026 Yesupatham SK, Granley, A, **Xie AX***. "Satellite glial translatome reprograms to favor mitochondrial and vesicular signaling under pelvic pain conditions". ***Corresponding author**. In review at *Cell Report*.

2026 Yesupatham SK, **Xie AX***. "Sensory Satellite Glial Gq-GPCR Activation Alleviates Visceral Pain". ***Corresponding author**. Pending submission to *Frontiers in Pain Research* (Abstract accepted).

2026 Spreitzer EJ, Deuel D, Calve S, **Xie AX***. "Development of a murine pelvic ganglia-bladder preparation for the study of neural control of micturition". ***Corresponding author**. In review at *Neurourology and Urodynamics*.

Meeting Abstracts

2007 **Xie X**, Carson M. "Microglial activation in the cuprizone model of adult demyelination and remyelination". Society for Neuroscience (SfN) Meeting, November 3 - 7, 2007. San Diego, CA. Poster Presentation

2008 **Xie X**, Carson M. "TLT2 has both constitutive and inducible patterns of expression in the healthy and inflamed CNS". American Society for Neurochemistry (ASN) annual meeting, March 1 - 5, 2008. San Antonio, Texas. Poster Presentation

2008 **Xie X**, Carson M. “TLT2 has both constitutive and inducible patterns of expression in the healthy and inflamed CNS”. La Jolla Immunology Conference, October 21 - 23, 2008. La Jolla, CA. Poster Presentation

2009 **Xie X**, Fiacco TA. “Homeostatic scaling of astrocyte glutamate receptors and transporters”. Gordon Conference, Glial Biology: Functional Interactions among Glia & Neurons, March 15 - 20, 2009. Ventura, California. Poster Presentation

2009 **Xie AX**, Fiacco TA. “Homeostatic scaling of astrocyte glutamate receptors and transporters”. SfN Meeting, October 17 – 21, 2009. Chicago, IL. Poster Presentation

2010 **Xie AX**, Fiacco TA. “Homeostatic scaling of astrocyte glutamate receptors and transporters”. SfN Meeting, November 13 – 17, 2010. San Diego, CA. Poster Presentation

2011 **Xie AX**, Fiacco TA. “Homeostatic plasticity of astrocytic metabotropic glutamate receptors”. Gordon Conference, Glial Biology: Functional Interactions among Glia & Neurons, March 6-11, 2011. Ventura, California. Poster Presentation

2011 **Xie AX**, Fiacco TA. “Bidirectional scaling of astrocytic metabotropic glutamate receptor signaling following long term changes in neuronal synaptic transmission”. SfN Meeting, November 12 – 16, 2011. Washington, DC. Poster Presentation

2013 **Xie AX**, Boyt K, Agulhon C, McCarthy KD. "Studying the Role of Glial Gq Signaling in the Regulation of the Cardiovascular System". Gordon Conference, Glial Biology: Functional Interactions among Glia & Neurons, March 3 - 8, 2013. Ventura, California. Poster Presentation

2013 **Xie AX**, Boyt K, Agulhon C, McCarthy KD. "Studying the Role of Glial Gq Signaling in the Regulation of the Cardiovascular System". Department of Pharmacology Retreat, UNC at Chapel Hill. March 26, 2013. Chapel Hill, NC. Poster Presentation

2013 **Xie AX**, McCarthy KD. “Elimination of neuronal driven Ca2+ Activity in astrocytes in IP3R2 knock-out (IP3R2 KO) mice”. SfN Meeting, November 9 – 13, 2013. San Diego, CA. Poster Presentation

2014 **Xie AX**, Lee JJ, McCarthy KD. “Ganglionic glia regulate cardiovascular function via Gq-GPCR activation”. UNC’s Integrative Vascular Biology

(IVB) T32 Training Program and the McAllister Heart Institute (MHI) joint Research Symposium, March 11, 2014. Chapel Hill, NC. Poster Presentation

2014 **Xie AX**, Lee JJ, McCarthy KD. "Chemogenetic activation of GFAP+ glia localizes a new regulatory unit of sympathetic output". Cold Spring Harbor Laboratory Glia in Health & Disease meeting, July 17 – 21, 2014. Cold Spring Harbor, NY. Oral Presentation

2015 **Xie AX**, Lee JJ, McCarthy KD. "Ganglionic GFAP+ glia regulate cardiovascular function". Gordon-Kenan Research Seminar and Gordon Conference, Glial Biology: Functional Interactions among Glia & Neurons, February 28 - March 1, 2015. Ventura, CA. Poster Presentation

2015 **Xie AX**, Lee JJ, McCarthy KD. "Ganglionic GFAP+ glia regulate cardiovascular function". Glial Biology Across Taxonomy – Implications for Function & Dysfunction symposium at Duke, March 25, 2015. Durham, NC. Poster Presentation

2016 **Xie AX**, Lee JJ, McCarthy KD. "Gq-GPCR Signaling in Sympathetic Satellite Glial Cells Regulate Cardiovascular Functions in vivo". ASN Annual Meeting, March 19 - 23, 2016. Denver, CO. Oral Presentation

2016 **Xie AX**, Lee JJ, McCarthy KD. "Chemogenetic Activation of Satellite Glial Gq-GPCR Signaling Regulate Cardiovascular Functions in vivo". ASN Annual Meeting, March 19 - 23, 2016. Denver, CO. Poster Presentation

2016 **Xie AX**, Lee JJ, McCarthy KD. "Chemogenetic Activation of Satellite Glial Gq-GPCR Signaling Regulate Cardiovascular Functions in vivo". UNC's Integrative Vascular Biology (IVB) T32 Training Program and the McAllister Heart Institute (MHI) joint Research Symposium, March 8, 2016. Chapel Hill, NC. Poster Presentation

2016 **Xie AX**, Lee JJ, McCarthy KD. "Gq-GPCR Signaling in Sympathetic Satellite Glial Cells Regulate Cardiovascular Functions in vivo". Department of Pharmacology Retreat, UNC at Chapel Hill, April 1, 2016. Chapel Hill, NC. Oral Presentation

2016 **Xie AX**, Lee JJ, McCarthy KD. "Gq-GPCR Signaling in Sympathetic Satellite Glial Cells Regulate Cardiovascular Functions in vivo". Duke Neuroimmunology and Glia Group Annual Retreat, April 11, 2016. Durham, NC. Oral Presentation

2016 **Xie AX**, Lee JJ, McCarthy KD. "Sympathetic ganglionic GFAP+ Glia Regulate Cardiovascular Functions in vivo". Weinstein Cardiovascular Development and Regeneration Conference, May 19 – 21, 2016. Durham, NC. Poster Presentation

2016 **Xie AX**, Lee JJ, McCarthy KD. "Chemogenetic activation of satellite glial Gq-GPCR signaling enhances cardiovascular function in vivo". International Conference on Glial Biology in Medicine, October 16 – 18, 2016. Roanoke, VA. Poster Presentation

2016 **Xie AX**, McCarthy KD. "Chemogenetic Activation of Satellite Glial Gq-GPCR Signaling Regulates Cardiovascular Functions in vivo". Arteriosclerosis, Thrombosis and Vascular Biology and Peripheral Vascular Disease (ATVB/PVD) Meeting, May 5 - 7, 2016. Nashville, TN. Moderated Poster Presentation

2018 **Xie AX**, Taves S, Madayag A, McCarthy KD, Malykhina AP. "Targeting Satellite Glial Signaling for the Treatment of Chronic Pain". ASN Annual Meeting, March 24 - 28, 2018. Riverside, CA. Poster Presentation

2018 **Xie AX**, Taves S, Madayag A, McCarthy KD, Malykhina AP. "Targeting Satellite Glial Signaling for the Treatment of Chronic Pain". Rocky Mountain Regional Neuroscience Group Annual Meeting, May 11, 2018. Aurora, CO. Poster Presentation

2018 **Xie AX**, Nedumaran B, Meacham RB, Malykhina AP. "Vascular Endothelial Growth Factor (VEGF) induces bladder nerve remodeling and visceral hyperalgesia in mouse model of bladder pain". American Urological Association Meeting, May 17 - 21, San Francisco, CA. Oral Presentation

2018 **Xie AX**, Meacham R, Malykhina AP. "VEGF-induced bladder nerve remodeling and visceral hyperalgesia in bladder pain". South Central Section of the American Urological Association Meeting, September 26 – 29, 2018. Nashville, TN. Moderated Poster Presentation

2019 **Xie AX**, Meacham RB, Malykhina AP. "Pharmacogenetic inhibition of afferent excitability alleviates VEGF-induced visceral allodynia and hyperalgesia in a mouse model of urological chronic pelvic pain syndrome (UCPPS)". South Central Section of the American Urological Association Meeting, September 25 - 28, 2019. Colorado Springs, CO. Moderated Poster Presentation

2019 **Xie AX**, Meacham RB, Malykhina AP. “Pharmacogenetic inhibition of afferent excitability alleviates VEGF-induced visceral allodynia and hyperalgesia in a mouse model of UCPPS”. Society for Basic Urologic Research meeting, November 7–10, 2019. New Orleans, LA. Poster Presentation

2020 **Xie AX**, Meacham RB, Malykhina AP. “Pharmacogenetic inhibition of lumbosacral spinal and sensory neurons alleviates visceral pain and improves lower urinary tract symptoms in animal model of urological chronic pelvic pain syndrome”. American Urological Association Meeting (cancelled due to COVID-19). Accepted for Moderated Poster Presentation

2020 **Xie AX**, Meacham RB, Malykhina AP. “Lumbar-sacral neuromodulation alleviates visceral pain and improves lower urinary tract symptoms in animal model of urological chronic pelvic pain syndrome”. South Central Section of the American Urological Association Meeting, October 10, 2020, virtual. Oral Presentation

2020 **Xie AX**, Meacham RB, Malykhina AP. “Adeno-associated viral vector (AAV)-mediated pharmacogenetic inhibition of lumbosacral sensory neurons alleviates visceral hypersensitivity in a mouse model of urological chronic pelvic pain syndrome (UCPPS)”. Society for Basic Urologic Research meeting, Virtual. Poster Presentation

2021 **Xie AX**, Malykhina AP. “Pharmacogenetic inhibition of afferent excitability alleviates VEGF-induced visceral hypersensitivity in a mouse model of UCPPS”. ASN Annual Meeting, June 28 - July 1, 2021. Virtual. Poster Presentation

2021 **Xie AX**, Meacham RB, Malykhina AP. “Sensory glial Gq-GPCR signaling alleviates visceral pain and improves micturition function in an animal model of urological chronic pelvic pain syndrome”. American Urological Association Meeting, September 10 – 13, 2021. Virtual. Oral Presentation

2022 **Xie AX**, Meacham RB, Malykhina AP. “Modulation of Sensory Glia Gq-GPCR Signaling in vivo Affects Spontaneous Voiding and Bladder Function in an Animal Model of Chronic Pelvic Pain”. American Urological Association Meeting, May 13 – 16, 2022. New Orleans, LA. Moderated Poster Presentation
This poster presentation was awarded the **"2022 AUA Best Poster"**.

2022 **Xie AX**, Meacham RB, Malykhina AP. “Modulation of Sensory Glia Gq-GPCR Signaling in vivo Affects Spontaneous Voiding and Bladder Function in an Animal Model of Chronic Pelvic Pain”. South Central Section of the American Urological Association Meeting, September 7 - 10, 2022. Coronado, CA. Oral Presentation

2023 **Xie AX**. “Manipulating peripheral glial signaling to treat pelvic pain”. American Urological Association Meeting, April 28 – May 1, 2023. Chicago, IL. Oral Presentation

2023 **Xie AX**, Iguchi N, Malykhina AP. “The Lack of Mechanosensitive TREK-1 Channel Mimics the Development of Aging-related Bladder Phenotypes in Mice”. American Urological Association Meeting, April 28 – May 1, 2023. Chicago, IL. Moderated Poster Presentation

2023 Yesupatham SK, **Xie AX**. “Transcriptome Analysis in Lumbosacral Dorsal Root Ganglia Reveals Key Molecular Changes in Animal Models of Urological Chronic Pelvic Pain Syndrome (UCPPS)”. American Urological Association Meeting, April 28 – May 1, 2023. Chicago, IL. Moderated Poster Presentation

2023 Yesupatham SK, **Xie AX**. “Transcriptome Analysis in Lumbosacral Dorsal Root Ganglia Reveals Key Molecular Changes in Animal Models of Urological Chronic Pelvic Pain Syndrome (UCPPS)”. South Central Section of the American Urological Association Meeting, September 6 - 9, 2023. Austin, TX. Moderated Poster Presentation

2023 Yesupatham SK, **Xie AX**. “Transcriptome Analysis in Lumbosacral Dorsal Root Ganglia Reveals Key Molecular Changes Underlying Nociceptive Sensitization in Animal Models of Urological Chronic Pelvic Pain Syndrome”. ASN annual meeting, American Society of Neurochemistry Meeting, March 18 - 22, 2023. Lexington, KY. Poster Presentation

2024 **Xie AX**. " Satellite Glial Regulation of Autonomic Function". American Physiology Summit, April 4-7, 2024. Long Beach, CA. Oral Presentation

2024 **Xie AX**. “The analgesic role of satellite glial signaling in bladder sensory ganglia and chronic pelvic pain”. ASN Annual Meeting, April 14-18, 2024. Portland, OR. Oral Presentation

2024 Yesupatham SK, **Xie, AX**. “Targeted Purification of Polysomal mRNA Sequencing reveals satellite glial cells-specific translatome changes

during in animal models of urological chronic pelvic pain syndrome". ASN Meeting, April 14 - 18, 2024. Portland, OR. Poster Presentation

2024 Yesupatham SK, **Xie AX**. "Targeted Purification of Polysomal mRNA Sequencing reveals satellite glial cells-specific translatome changes during in animal models of urological chronic pelvic pain syndrome". American Urological Association Meeting, May 3 – May 6, 2024. San Antonio, TX. Moderated Poster Presentation

2024 Granley A, Yesupatham SK, **Xie, AX**. "TRAP and glia: Revealing Translational Change in Sensory Glia during the Pathogenesis of Visceral Pain". Undergraduate Summer Research Symposium, July 26, 2024. Aurora, CO. Poster Presentation

2024 Yesupatham SK, **Xie AX**. "Sex-specific sympathetic satellite glial regulation of resting blood pressure". National Conference on Women's Health and Sex Differences Research - Sex Differences Across the Lifespan: Focusing on Cardiometabolism and Mental Health. October 23 - 25, 2024. Colorado Springs, CO.

2024 Granley A, Yesupatham SK, **Xie, AX**. "Revealing Translatome Changes in Sensory Glia using Translating Ribosome Affinity Purification & RNA Sequencing" Neuroscience Graduate Program Retreat, October 24 - 26, 2024. Esters Park, CO. Poster Presentation

2024 Yesupatham SK, **Xie AX**. "Targeted Purification of Polysomal mRNA Sequencing reveals satellite glial cells-specific translatome changes during in animal models of urological chronic pelvic pain syndrome". South Central Section of the American Urological Association Meeting, October 30 - November 2, 2024. Colorado Springs, CO. Moderated Poster Presentation

2024 **Xie AX**, Yesupatham SK. "A new approach to neuromodulation: how to use pharmacogenetic activation in non-neuronal cells to promote micturition and alleviate visceral pain".
South Central Section of the American Urological Association Meeting, October 30 - November 2, 2024. Colorado Springs, CO. Moderated Poster Presentation

2025 Yesupatham SK, **Xie AX**. "Polysomal mRNA sequencing reveals sex differences in satellite glial cell-specific translatome changes during urological chronic pelvic pain syndrome". Ludeman Family Center, Women's Health Research Day. February 22, 2025. Aurora, CO. Poster Presentation

2025 Yesupatham SK, **Xie AX**. “Polysomal mRNA sequencing reveals sex differences in satellite glial cell-specific translatome changes during urological chronic pelvic pain syndrome”. Postdoc Research Day. July 10, 2025. Aurora, CO. Poster Presentation

2025 Yesupatham SK, **Xie AX**. “Transcriptome Analysis in Lumbosacral Dorsal Root Ganglia Reveals Key Molecular Changes Underlying Nociceptive Sensitization in Animal Models of Urological Chronic Pelvic Pain Syndrome”. CU-CSU summit: “Chronic Disease Frontiers: Colorado Approach to Causes, Prevention, and Treatment”. August 13, 2025. Denver, CO. Poster Presentation

2025 Spreitzer EJ, Deuel D, Calve S, **Xie AX**. “A pelvic ganglia-bladder ex vivo model for studying neural control of micturition”. CU-CSU summit, “Chronic Disease Frontiers: Colorado Approach to Causes, Prevention, and Treatment”. August 13, 2025. Denver, CO. Poster Presentation

2025 Yesupatham SK, **Xie AX**. “Polysomal mRNA sequencing reveals sex differences in satellite glial cell-specific translatome changes during urological chronic pelvic pain syndrome”, International Society of Neurochemistry/ASN Joint Meeting. August 19 - 22, 2025. New York City, New York. Poster Presentation

2025 Spreitzer EJ, Deuel D, Calve S, **Xie AX**. “A pelvic ganglia-bladder ex vivo model for studying neural control of micturition”. Neuroscience Graduate Program Retreat. October 9 - 10, 2025. Esters Park, CO. Poster Presentation

2025 Yesupatham SK, **Xie AX**. “Polysomal mRNA sequencing reveals sex differences in satellite glial cell-specific translatome changes during urological chronic pelvic pain syndrome”. American Physiological Society: New Trends in Sex Differences and Women’s Health Research, October 23 – 25, 2025, New Orleans, LA.

2025 Yesupatham SK, **Xie AX**. “Transcriptome and translatome profiling in lumbosacral dorsal root ganglia reveals sex-specific molecular mechanisms underlying Visceral Pain”. New Trends in Sex Differences and Women’s Health Research Meeting. October 23 - 25, 2025. New Orleans, LA. Poster Presentation

2026 Yesupatham SK, **Xie AX**. “Gap junction dysregulation in satellite glial cells is a key driving in visceral hypersensitivity”, ASN Annual Meeting. April 18 - 22, 2026. Saint Charles, Missouri.

2026 Yesupatham SK, **Xie AX**. “New insights into sex-specific visceral pain mechanisms”, American Physiology Summit. April 23 - 26, 2026. Minneapolis, Minnesota.

2026 Spreitzer EJ, Deuel D, Calve S, **Xie AX**. “Development of a murine pelvic ganglia-bladder preparation for the study of neural control of micturition”. American Physiology Summit. April 23 - 26, 2026. Minneapolis, Minnesota.

2026 Yesupatham SK, **Xie AX**. “Male and female satellite glial cells exhibit distinct gene translation likely driven by sex hormones and chromosome complement”, National Conference on Women’s Health and Sex Differences Research. October 21 - 23, 2026. Colorado Springs, Colorado.

16. Highlights of Work in Media

2017 UNC School of Medicine, News. “Ganglionic GFAP+ glial Gq-GPCR signaling enhances heart functions in vivo”. https://www.med.unc.edu/pharm/ganglionic-gfap-glial-gq-gpcr-signaling-enhances-heart-functions-in-vivo/

2023 *AUA* Daily News. “New approaches to understanding and treating pelvic pain”. https://www.auadailynews.org/aua-2023/article/22860473/new-approaches-to-understanding-and-treating-pelvic-pain

2023 University of Colorado, Anschutz Medical Campus, Department of Surgery, News. “Studying the Role of Glial Cells in Regulating Blood Pressure”. https://news.cuanschutz.edu/department-of-surgery/role-of-glial-cells-in-regulating-blood-pressure

2023 The John Hopkins Newsletter. “Alison Xie describes analgesic effects of glial-neuron interactions”. https://www.jhunewsletter.com/article/2023/10/alison-xie-describes-analgesic-effects-of-glial-neuron-interactions

2023 University of Colorado, Anschutz Medical Campus, Department of Surgery, News. “Alison Xie, PhD, Named SBUR Young Investigator for 2023”. https://news.cuanschutz.edu/department-of-surgery/alison-xie-phd-named-sbur-young-investigator-for-2023

2024 American Journal of Physiology-Renal Physiology, “First Author Highlights”. https://journals.physiology.org/doi/full/10.1152/ajprenal.2024.326.6.AU

2024 University of Colorado, Anschutz Medical Campus, Department of Surgery, News. “CCTSI Grant Funds New Model for Bladder Research”. https://news.cuanschutz.edu/department-of-surgery/cctsi-grant-funds-new-model-for-bladder-research

2025 University of Colorado, Anschutz Medical Campus, Department of Surgery, News. “CU Department of Surgery Researcher Looking for Better Way to Treat Pelvic Pain”. https://news.cuanschutz.edu/department-of-surgery/researcher-looking-for-better-way-to-treat-pelvic-pain

2025 University of Colorado, Anschutz Medical Campus, Graduate School, News. “New Mentoring Initiative Gains Traction - Academy of Research Mentoring Educators Launches at CU Anschutz” https://news.cuanschutz.edu/graduate-school/new-mentoring-initiative-gaining-traction