

**UNIVERSITY OF COLORADO, SCHOOL OF MEDICINE
CURRICULUM VITAE**

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

1. Current Position Associate Professor of Surgery

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2. Education

1997-2002 **B.S. in Biophysics**
Department of Biology, University of Science and Technology of
China (USTC), Hefei, Anhui, P. R. China

2003-2005 **M.Sc. in Neurobiology and Biophysics**
The School of Life Sciences, USTC, Hefei, Anhui, P. R. China

2006-2011 **Ph.D. in Neuroscience**
University of California Riverside (UCR), Riverside, California
(CA), USA

2011-2016 **Postdoctoral Training in Pharmacology, Physiology, and Glial
Biology**
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**
Division of Urology, Department of Surgery, School of Medicine,
University of Colorado Anschutz Medical Campus (CU
Anschutz), Aurora, Colorado (CO)

2019-2025	Assistant Professor Division of Urology, Department of Surgery, School of Medicine, CU Anschutz, Aurora, CO
2025-	Associate Professor Division of Urology, Department of Surgery, School of Medicine, CU Anschutz, Aurora, CO

4. Professional Positions

2001/9-2002/7	Undergraduate Research Assistant Department of Biology, USTC, Hefei, Anhui, P. R. China
2002/8-2003/8	Professional Research Assistant Department of Biophysics, School of Life Science, USTC, Hefei, Anhui, P. R. China
2003/9-2005/7	Graduate Research and Teaching Assistant Department of Biophysics, School of Life Sciences, USTC, Hefei, Anhui, P. R. China
2006/8-2011/8	Graduate Research and Teaching Assistant Neuroscience Graduate Program, UCR, Riverside, CA, USA
2011/9-2016/8	Postdoctoral Research Associate Department of Pharmacology, School of Medicine, UNC at Chapel Hill, Chapel Hill, NC, USA

5. Honors, Awards, and Certificate

2005	Dong-gang Scholarship USTC, the Graduate School
2011	University Teaching Certificate UCR, the Graduate Division
2014	Excellence in Mentoring Undergraduates UNC at Chapel Hill, the Postdoctoral office
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
2024	Center for the Improvement of Mentored Experiences in Research (CIMER) Level 1 facilitator certification
2026	CIMER level 2 facilitator certification

6. Professional Affiliations

Graduate Program

Neuroscience Graduate Program (NSP), CU Anschutz, Aurora, CO
 Medical Scientist Training Program (MSTP), CU Anschutz, Aurora, CO
 Integrated Physiology Graduate Program (IPHY), 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 (SfN)
 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)
 Collaborating for the Advancement of Interdisciplinary Research in Benign Urology (CAIRIBU)

7. Professional Leadership and Service

Departmental and interdepartmental

University of North Carolina at Chapel Hill

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

University of Colorado, Anschutz Medical Campus

Department of Surgery and Division of Urology

2022- Research Advisor, Urology Resident Research Program
2022 Advisor, the Uro Social Media Workgroup
2025, 2026 Judge for Research Awards, Surgery Research Symposium

Neuroscience Graduate Program

2023-2024 Steering Committee
2023-2024 Co-chair, Annual Retreat Symposium
2024-2025 Chair, Annual Retreat Symposium
2024-2026 Admission Committee

Graduate School

2024- Steering Committee member, Academy of Research Mentoring Educators (ARME)
2025, 2026 CIMER facilitator, ARME
2026 Review Committee, Dean's Doctoral Mentoring Award

Mentoring and Other Activities

2022- 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 Center Youth Career Day, Aurora, CO
2025 Volunteer, the 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

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| 2019/05 | Member, Neuroscience in Urology Thank Tank, National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), NIH, Rockville, MD |
| 2022/09 | Moderator, Reconstruction/Neuro-urology Poster Session, South Central Section of the American Urological Association Meeting, Coronado, CA |
| 2024/04 | Co-chair, Foundational Science Session “Peripheral glia take center stage in autonomic functions”, American Physiological Summit. Long Beach, CA |
| 2024/04 | Chair, Scientific symposium “The roles of satellite glial cells during development and diseases”. ASN Annual 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 Annual Meeting, St Charles, MO. |

Community/Scientific Education

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| 2018-2017 | TED transcriber and translator (English, Mandarin) |
| 2018- | Judge, Denver Metro Regional Science and Engineering Fair |

8. Professional Development

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| 2022 | Leadership, Empower & Engage, Authenticity & Awareness, Diversity (LEAD) training, CU Anschutz, Department of Surgery
- Training program for developing leadership identity. |
| 2022-2023 | Women’s Leadership training, CU Anschutz, School of Medicine
- Selected from all women Assistant Professors with primary appointments in the School of Medicine to receive professional development training. |
| 2024 | Mentoring Academy, Center for the Improvement of Mentored Experiences in Research (CIMER) facilitator training, CU Anschutz.
- Selected from all School of Medicine faculty to receive mentoring facilitators training. The trainees in this program are expected to implement mentorship training at their institution or organization and therefore increase the capacity for research mentor training offered at colleges and universities, research institutes, and organizations. |
| 2024-2025 | Striving Towards Excellence Program (STEP) training, CU Anschutz, Department of Surgery |

- Aligned with the departmental mission of “Enlightening Tomorrow’s Leaders,” this 10-module training program assist faculty in developing five essential skills: Communication, Collaboration, Coaching, Change Management and Credibility.
- 2025-2026 Advanced Leadership Development (LEAD 2.0) training, CU Anschutz, Department of Surgery
- This one-year course revisit core topics through table discussions, while strengthening resilience and leadership skills. It discusses burnout, imposter phenomenon, executive presence, and self-care strategies for leaders
- 2025-2026 Community Engagement & BOND Mentoring, Office of Access and Engagement, CU Anschutz
- Aligned with the School of Medicine mission of increasing access to mentorship for all staff and faculty on the CU Anschutz Medical Campus. This program last one year with monthly mentor-mentee meetings, and 10 group meeting and discussions (on average 1.5 hours each).

9. Review, Referee, and Editorial Activities

Editorial board

- 2022- Review Editor, Frontiers in Pain Research
- 2022- Review Editor, Frontiers in Systems Neuroscience
- 2026- Guest Associate Editor, Frontiers in Pain Research
- Editor of Research Topic “Beyond the Neuron: Glial and Immune Mechanisms in Visceral and Pelvic Pain”, which 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 highlights sex differences in pain mechanisms.

Manuscript Review

Cell Reports
 American Journal of Physiology - Regulatory, Integrative and Comparative Physiology
 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

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 translational 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 Department of Surgery, Division of Urology Grand Rounds, Aurora, CO. "Insights on UCPS 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

Certificate

2011	University Teaching Certificate the Graduate Division, UCR
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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 , Undergraduate Student, Department of Biology. <u>Carolina Summer Fellowship Program</u>
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 , Undergraduate Student, Department of Biochemistry and Molecular Biology, Brown University. <u>Carolina Summer Fellowship Program</u>
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 system

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 undergraduate student 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- **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. He continues working in the lab as a graduate research assistant.
- 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 programs "Integrative Physiology of Aging" in Division of Geriatrics, CU Anschutz.

Women in STEM (WiSTEM) mentorship program

- 2022-2023 **Kayla Janevski**, B.S., PA-II.
- 2022-2023 **Ester Oh**, Ph.D., Postdoctoral Fellow, Division of Renal Diseases and Hypertension
- 2023-2024 **Aubrianna Gholar**, B.A., Master student, MHA Master Program
- 2023-2024 **Aur lie Ledreux**, Ph.D., Associate Professor, Department of Neurosurgery
- 2024-2025 **Emma Shelby**, B.S., Medical Student, Class of 2027
- 2024-2025 **Isabella Tyler**, B.S., Graduate Student, NSP
- 2025-2026 **Haley Colling**, B.S., Professional Research Assistant, Department of Pediatric Gastroenterology
- 2025-2026 **Madison X. Rodriguez**, B.S., Graduate Student, Barbara Davis Center for Diabetes

Thesis mentor

- 2025-2026 **Spreitzer, Emmett**
Undergraduate student, Department of Neuroscience, CU Boulder.

Honor Thesis: “Developing a novel pelvic ganglia–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

Workshops

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

13. Mentoring Record (for Faculty)

Certificate

- 2024 CIMER facilitator training
Level 1 facilitator certification
- 2026 CIMER level 2 facilitator certification

Workshops

- 2025/03 “Entering mentoring” CIMER training (8 hours) to CU Anschutz faculty, Aurora, CO.
- 2025/10 “Entering mentoring” CIMER training (8 hours) to CU Anschutz faculty.
- 2026/05 “Entering mentoring” CIMER training (8 hours) to CU Anschutz faculty.

Leadership

- 2024- Steering committee Member, 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 research funding

1. NIH/NIA 5T32AG000279
“Integrative Physiology of Aging”
Role: Mentor for Postdoctoral Research Associates
08/05/2001-04/30/2029
Direct cost: \$669,869 in 2025
- This project supports research training efforts on aging physiology at both the CU Anschutz and CU Boulder.

Completed research funding

As a Principal Investigator

2. Colorado Pilot Program Mentored Award, Colorado Clinical and Translational Sciences Institute
“Beyond the neurons: the role of peripheral glia in neurogenic bladder dysfunction”
Role: Principal Investigator
03/01/2019-02/29/2020
Direct cost: \$30,000
- This project supported our investigation on how satellite glial Gq-GPCR activation modulates visceral afferent sensitivity *in vivo*. Pharmacogenetic method was used to remotely activate satellite glial Gq-GPCR signaling *in vivo* using rodent models. This project also included investigations of changes in glial transcriptome and translome in sensory glia innervating the lower urinary tract.
3. 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)”
Role: Principal Investigator
09/01/2020-08/30/2021
Direct cost: \$40,000
- This project investigated the cellular and molecular mechanisms of aberrant mechano-sensitivity in idiopathic detrusor overactivity and identify molecular

targets and signaling pathways associated with increased sensory activity in overactive LUTS.

4. NIH/NIDDK R01 DK129260
“Activating Peripheral Glia to Relieve Visceral Pain in Animal Models of Urological Chronic Pelvic Pain Syndrome (UCPPS)”
Role: Principal Investigator
08/05/2021-05/31/2026
Direct cost: \$1,100,000
 - This project studies how dorsal root ganglia glial cells regulate bladder function and pelvic pain.
5. Ludeman Center Early Career Faculty Research Development Awards
“Sex differences in sympathetic glial regulation of blood pressure”
Role: Principal Investigator
09/01/2023-10/31/2024
Direct cost: \$25,000
 - This project studies sexual dimorphism in sympathetic glial regulation of blood pressure.
6. CCTSI Translational Methods Award
“Development of a murine pelvic ganglia-bladder preparation for the study of glial control of micturition”
Role: co-Principal Investigator
08/01/2024-07/31/2025
Direct cost: \$30,000
 - This project established an MPG-bladder ex vivo experimental model enabling optogenetic manipulation in ganglionic neurons and glia.

As a Key Personnel

7. NIH/NINDS R21 NS081589 (McCarthy)
Role: Key Personnel
9/01/2012 – 8/31/2014
Total direct cost: \$270,000
 - This project identified the cellular mechanism of glial modulation of cardiovascular functions.
8. NIH/MH RO1 MH099564 (McCarthy)
“Function of Astrocytic GPCR Signaling Cascades in Physiology and Mental Illness”
Role: Key Personnel
6/01/2013 – 5/31/2017
Total direct cost: \$1,368,000

- The proposal for this project was submitted in response to a Request for Applications entitled New Tools for Examining Astrocyte Heterogeneity. The goal was to develop new mouse models expressing engineered GPCRs driven by intersectional gene activation.

9. NIH/NIDDK R01 DK121506 (Malykhina)

“Regulation of pelvic pain and micturition reflex by VEGF in urological chronic pelvic pain syndrome”

Role: Key Personnel

08/01/2019-07/30/2022

Total direct cost: \$600,000

- This work evaluated the role of bladder VEGF signaling pathways in neurogenesis and neural plasticity of the neural pathways innervating the lower urinary tract.

10. NIH/NIDDK R01 DK116648 (Malykhina)

“Mechanisms of neurogenic voiding dysfunction in a viral murine model of multiple sclerosis”

Role: Key Personnel

09/08/2020-8/30/2023

Total direct cost: \$600,000

- The project investigated the neural mechanisms of lower urinary tract symptoms in an animal model of multiple sclerosis induced by mouse hepatitis virus (MPV).

Pending Review

11. National Disease Research Interchange (NDRI)/HTORR Pilot Award

Submitted in April 2026, pending review in July

“Probing the sensory ganglionic neuroimmune mechanisms driving pelvic sensitization in human dorsal root ganglia”

Role: Principal Investigator

09/01/2026-08/31/2028

Direct cost: N/A

- This project provides 10 human specimens.

12. NIH/NIA/NIGMS R21

Submitted in June 2026, pending review in November

“Pelvic ganglia neuromodulation for on-demand, catheter-free urination”

Role: Principal Investigator

4/1/2027-3/31/2029

Direct cost: \$275,000

- The proposed project aims to develop a novel neuromodulatory approach to activate pelvic ganglionic efferent neurons *in vivo* and assess its potential for treating lower urinary tract symptoms in aged adults and neurogenic bladder patients.

13. Department of Veterans Affairs, Scientific Review and Management (ISRM) Pilot Project Award

Submitted in August 2026, pending full proposal invitation in December

“Pelvic Neuromodulation for On-demand, Catheter-free Urination in Veterans”

Role: Co-Investigator

6/1/2027-5/31/2029

Direct cost: \$230,000

- The proposed project aims to develop a novel neuromodulatory approach to activate pelvic ganglionic efferent neurons *in vivo* and assess its potential for inducing on-demand urination in veterans diagnosed with neurogenic lower urinary tract function (LUTS).

14. Foundation of Women's Health

Submitted in August 2026, pending full proposal invitation in December

“Hormonal influence on bladder sensitization and chronic pelvic pain”

Role: Principal Investigator

1/1/2027-12/31/2027

Direct cost: \$300,000

- This project studies how hormonal signaling contributes to interstitial cystitis/bladder pain syndrome (IC/BPS) flares by shaping neuroimmune interactions in peripheral sensory nervous system.

15. Bibliography

Thesis

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| 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. doi: 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.

PI-led and Collaborative Research

- 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***. “Sex-Specific Satellite Glial Transcriptome Changes in Lumbosacral Dorsal Root Ganglia Drive Chronic Bladder Hypersensitivity”. ***Corresponding author**. Pending submission to *Cell Report*.
- 2025 Yesupatham SK, **Xie AX***. “Sensory Satellite Glial Gq-GPCR Activation Alleviates Visceral Pain”. ***Corresponding author**. Pending submission to *Frontiers in Pain Research* in August.
- 2025 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**. Pending submission to *Neurourology and Urodynamics* in August.

Competitive abstracts

- 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**, 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**, 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](#)
- 2024 Yesupatham SK, **Xie AX**. “Targeted Purification of Polysomal mRNA Sequencing reveals satellite glial cells-specific translational 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 Yesupatham SK, **Xie AX**. “Targeted Purification of Polysomal mRNA Sequencing reveals satellite glial cells-specific translational 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
- 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.
- 2025 Yesupatham SK, **Xie AX**. “Polysomal mRNA sequencing reveals sex differences in satellite glial cell-specific translational 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.

Non-competitive 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-PCR 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-PCR 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-PCR 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-PCR 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-PCR 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-PCR signaling enhances cardiovascular function in vivo”.

International Conference on Glial Biology in Medicine, October 16 – 18, 2016. Roanoke, VA. [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](#)
- 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](#)
- 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 translome changes during in animal models of urological chronic pelvic pain syndrome”. ASN Annual Meeting, April 14 - 18, 2024. Portland, OR. [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 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](#)

- 2025 Yesupatham SK, **Xie AX**. “Polysomal mRNA sequencing reveals sex differences in satellite glial cell-specific translome 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 translome 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 translome 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**. “Transcriptome and translome 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.

16. Citations and 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/>
- 2022 AUA News, November issue. “Sensory Glia Gq-GPCR Activation In Vivo Modulates Micturition Functions in an Animal Model of Chronic Pelvic Pain”.
<https://auanews.net/issues/articles/2022/november-2022/aua2022-best-posters-sensory-glia-gq-gpcr-activation-in-vivo-modulates-micturition-functions-in-an-animal-model-of-chronic-pelvic-pain>
- 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/departments-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>