PROGRAM BOOK

COLLABORATING FOR THE ADVANCEMENT OF INTERDISCIPLINARY RESEARCH IN BENIGN UROLOGY

Advancing science to reduce the burden of non-cancerous urologic disease

2025 CAIRIBU ANNUAL MEETING

December 3-5

Madison, WI

On the University of Wisconsin-Madison campus

SCHEDULE

Wednesday, December 3 – MEMORIAL UNION, 800 Langdon Street

8:00 – 11:30 AM	6th annual pre-meeting for trainees and early-stage investigators
12:30 – 7:30 PM	CAIRIBU meeting day 1 – Scientific sessions, keynote speakers, collaboration-building, networking, poster session 1, meet-and-greet reception

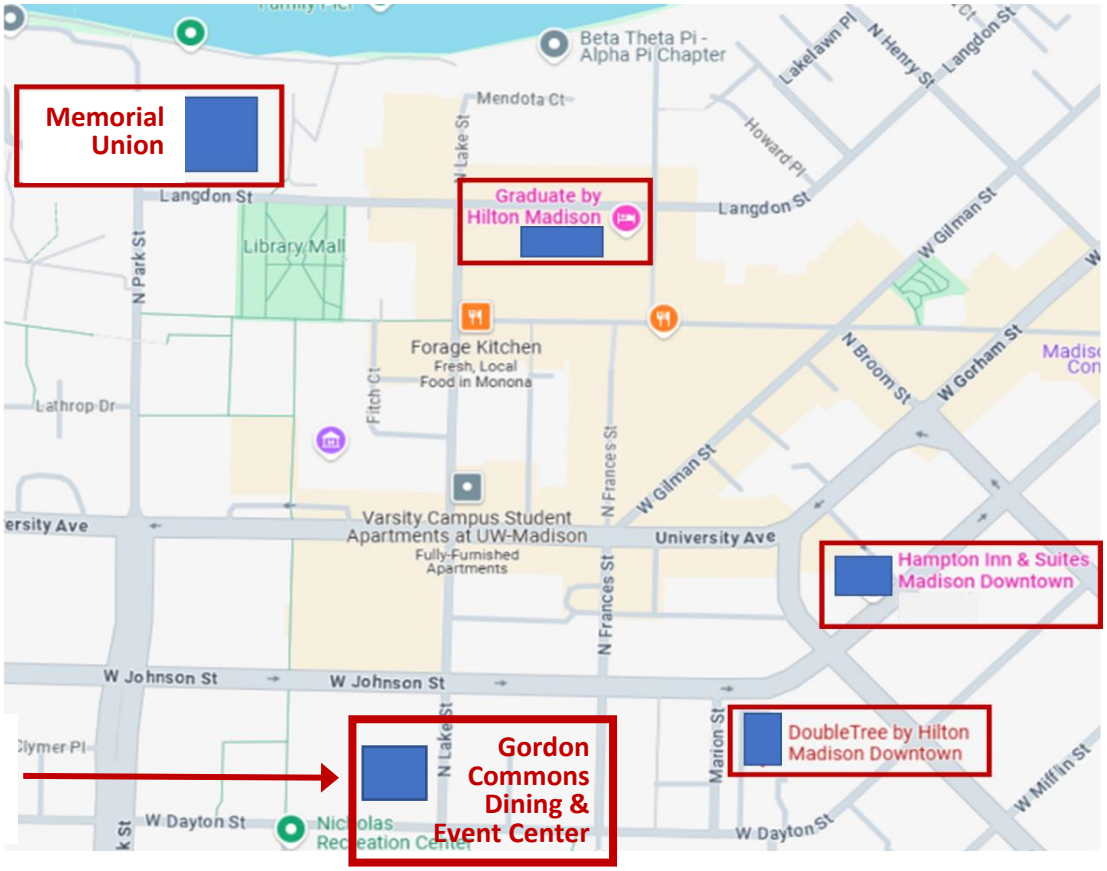
Thursday, December 4 – MEMORIAL UNION, 800 Langdon Street

7:45 – 7:30 PM	CAIRIBU meeting day 2 – Scientific sessions, morning "bootcamps," keynote speakers, collaboration-building, networking, poster session 2, awards reception

Friday, December 5 – GORDON COMMONS DINING & EVENT CENTER, 770 W. Dayton Street

8:15 – 1:30 PM	CAIRIBU meeting day 3 – Scientific sessions, speakers, take-home messages, awards

MEETING LOCATIONS AND HOTELS



CAIRIBU MEETING DESCRIPTION AND PURPOSE

Collaborating for the Advancement of Interdisciplinary Research in Benign Urology. The Annual CAIRIBU Meeting brings together a diverse and collaborative community of researchers, clinicians, and trainees dedicated to advancing the field of benign urology. Rooted in the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)-funded Urology O'Brien Centers and expanded through the inclusion of P20 Urology Exploratory Centers, P20 Urology FORWARD Centers, K12 Career Development Programs, and other initiatives, CAIRIBU fosters cross-disciplinary engagement to accelerate discovery and innovation.

The annual CAIRIBU meeting is critical to the "community" aspect of CAIRIBU. **A central feature of annual CAIRIBU meetings is the exchange of knowledge and sharing research progress.** Toward this end, we hear from leaders and trainees of CAIRIBU-affiliated Centers and Programs as well as from other CAIRIBU initiatives (e.g., CAIRIBU Research Interest Groups). Additionally, the meeting serves as a central forum to expand connections across the broader urologic research community and to discuss new ideas and initiatives that fit within our overall mission as follows:

- **Nurture and train** the next generation of urologic researchers through mentorship, education, and professional development
- **Build the research community** by expanding collaborative networks across institutions and disciplines, both within and beyond traditional urologic research
- **Improve knowledge** by deepening our understanding of the mechanisms underlying normal and abnormal development, function, and pathology of the entire genitourinary tract through the lifespan
- **Advance and translate science to the people** by bridging basic research with clinical application and public health, ultimately improving patient outcomes and reducing the burden of non-cancerous urologic disease

In the face of high prevalence and treatment cost exceeding $11.5 billion annually, non-malignant ("benign") conditions such as urinary tract infections, urolithiasis, enlarged prostate, neurogenic bladder, general lower urinary tract dysfunction, bladder and pelvic pain syndromes, male infertility, and erectile dysfunction demand innovative, mechanistically-informed solutions. **The CAIRIBU Community is united by the goal of addressing the gaps in knowledge that hinder effective diagnosis, treatment, and prevention of these conditions.**

Through this annual gathering, CAIRIBU strengthens its mission to cultivate scientific collaboration, generate transformative insights, and advance translational science to reduce the burden of benign urologic disease. **The annual CAIRIBU meeting highlights and celebrates trainees and early-stage investigators in particular, and offers them multiple networking and interactions opportunities.** For example, only trainees and early-stage investigators (within 10 years of their terminal degree) may submit and present abstracts. ALL collaborative-minded investigators engaged in or interested in function and dysfunction within the urinary tract are strongly encouraged to participate in annual CAIRIBU meetings. The CAIRIBU Community is welcoming to all!

CAIRIBU Meeting History

The 2025 CAIRIBU meeting in Madison, WI marks the 8th annual CAIRIBU meeting. Annual meetings prior to that, organized by NIDDK Program Officers and leaders of the George M. O'Brien Cooperative Urology Research Centers, were a blueprint for the current-day annual CAIRIBU meeting.

In 2018, the CAIRIBU Community was formed around a nascent coordinating center (the **CAIRIBU Interactions Core**, formally established in 2020) and around existing Urology O'Brien Centers, P20 Centers, and K12 Career Development Programs.

The annual CAIRIBU meeting has grown since then to include investigators and trainees from the broader urologic community. The CAIRIBU Community continues to enjoy strong strategic direction and guidance from NIDDK Program Officers.

SCHEDULE AT A GLANCE

Remember that we meet at the **Memorial Union**, 800 Langdon St., on Wednesday and Thursday, December 3 and 4. CAIRIBU meeting activities take place on the 4th floor in the **Great Hall.**

We then move to the **Gordon Commons Dining & Event Center**, 770 W. Dayton St., on Friday, December 5. CAIRIBU meeting activities take place on the 2nd floor in the **Symphony Room.**

(all times are CENTRAL TIME)	TUES, Dec 2	WED, Dec 3	THURS, Dec 4	FRI, Dec 5
8:00 AM		**Trainee and Early-Stage Investigator Pre-Meeting**	**Breakfast Bootcamp and Roundtable** (7:45-8:45 AM) **CAIRIBU MEETING Day 2** **Memorial Union** *(800 Langdon St)* - **Breakfast provided** - Keynote speaker(s) - Networking session - Scientific sessions - **Lunch provided** - Poster session 2	**CAIRIBU MEETING Day 3** **Gordon Commons Dining & Event Center** *(770 W. Dayton St)* - **Breakfast provided** - Scientific sessions - Take-home messages
8:30				
9:00				
9:30				
10:00				
10:30				
11:00				
11:30				
12:00				
12:30		**CAIRIBU MEETING Day 1** **Memorial Union** *(800 Langdon St)* - Keynote speaker(s) - Scientific sessions - Strategic visioning - Poster session 1 - **Dinner provided**		
1:00				
1:30				
2:00				
2:30				
3:00	**Check into hotel** (for those arriving early)			
3:30				
4:00				
4:30				
5:00				
5:30				
6:00	**Welcome Reception (location TBD)**	**Networking Reception**	**Awards Reception**	
6:30				
7:00		**Networking Dinner at Memorial Union**	**Small Group Dinners**	
7:30				
8:00				

CAIRIBU Pre-Meeting for Trainees and ESIs

WEDNESDAY, December 3
Memorial Union, Great Hall

800 Langdon Street
UW-Madison Campus

6th ANNUAL TRAINEE AND EARLY-STAGE INVESTIGATOR PRE-MEETING

2025 CAIRIBU TRAINEE PRE-MEETING PLANNING COMMITTEE: Alexis Adrian (UW-Madison U54 O'Brien Center), Jonathan Ellison, MD (Children's Hospital of Philadelphia P20 Center), Ajinkya Limkar (UW-Madison U54 O'Brien Center), Michael Neugent, PhD (U-RIG), Michael Odom, PhD (Duke University KURe Program), Alexandra Polasko, PhD (Stanford KURe Program), Petra Popovics, PhD (K12 alum, currently co-investigator, Endeavor Health P20 Center), Seth Reasoner (prior Vanderbilt P20 Center), Renee Vickman, PhD (Endeavor Health P20 Center)

WEDNESDAY, DECEMBER 3

8:00 AM **Welcome & Ice Breaker** (10 min)
Alexandra Polasko, PhD (Stanford University) and **Alexis Adrian, Graduate Student** (UW-Madison)

8:10 AM **Structured Networking** – Led by **Whitney Sweeney, PhD**, UW-Madison Institute for Clinical and Translational Research: *Guided activity to foster connections across disciplines, institutions, and trainees*

8:55AM **Grant Mechanisms: Small Group Discussions with Investigators and Recent Awardees** (35 min)
Breakout conversations on F, K, and R mechanisms: NIDDK Program Officers and prior awardees

(1) **F mechanisms** – **William Ricke, PhD** (PI, UW-Madison Urology O'Brien Center) and **Alexis Adrian, graduate student** (UW-Madison Urology O'Brien Center)
(2) **K mechanisms** – **CAIRIBU K12 Leaders** and **Alexandra Polasko, PhD** (K12 Scholar, Stanford University KURe Program)
(3) **R mechanisms** – **Kimberly Keil-Stietz, PhD** (project leader, UW-Madison Urology O'Brien Center), and **Douglas Strand, PhD** (UT Southwestern; project leader, UW-Madison Urology O'Brien Center)

9:30 AM **Break** (10 min)

9:40 AM **Update on NIH Grant Review Guidelines** (10 min)

9:50 AM **Mock Grant Review** (60 min)
As a large group, attendees will observe a simulated grant review panel. After the review, panelists will "break character" and move to separate tables for informal, small-group Q&A. Attendees are invited to move freely between tables and to engage with reviewers about the grant review process, reviewers' comments, and decision making. **Grant materials will be shared in advance to support deeper discussion.**

- Reviewer 1: **James Brooks, MD** (PI, Stanford University Urology O'Brien Center, Co-PI, Stanford University KURe Program)
- Reviewer 2: **Chad Vezina, PhD** (PI, UW-Madison KUre Program; and project leader, UW-Madison Urology O'Brien Center)
- Reviewer 3: **Zohreh Izadifar, PhD** (Boston Children's Hospital/Harvard University)
- Reviewer 4: **Johanna Hannan, PhD** (UW-Madison)

10:50 AM **Break** (15 min)

11:05 AM **Career Exploration Roundtables** (40 min)
Small-group discussions led by established researchers from diverse career paths. Participants will start at one table and have the opportunity to switch to a second table halfway through the session.

(1) **Academic research** – **William Ricke, PhD** (PI, UW-Madison Urology O'Brien Center)
(2) **Clinical research** – **Chuck Scales, MD, MSHS** (Duke University)
(3) **Industry research** – **Hannah Miles, PhD** (PPD | Thermo Fisher Scientific)

11:45 AM **Conclusions and Evaluations**

***** A BUFFET LUNCH IS AVAILABLE TO ALL BEFORE CAIRIBU MEETING BEGINS *****

CAIRIBU Annual Meeting

December 3-5

Madison, WI

8th ANNUAL CAIRIBU MEETING

2025 ANNUAL CAIRIBU MEETING PLANNING COMMITTEE: Alexis Adrian (UW-Madison U54 O'Brien Center), Scott Bauer (UCSF), Jonathan Ellison, MD (Children's Hospital of Philadelphia P20 Center), Muthuvel Jayachandran, PhD (Mayo Clinic Rochester P20 Center), Kim Keil Stietz, PhD (UW-Madison U54 O'Brien Center), Ajinkya Limkar (UW-Madison U54 O'Brien Center), Michael Neugent, PhD (U-RIG), Michael Odom, PhD (Duke University KURe Program), Alexandra Polasko, PhD (Stanford University KURe Program), Jon Pollack, PhD (Stanford University U54 O'Brien Center), Petra Popovics, PhD (K12 alum; current co-investigator, Endeavor Health System P20 Center), Seth Reasoner (Vanderbilt University, prior P20 Center), Nathan Tykocki, PhD (Michigan State University, prior P20 Center), Renee Vickman, PhD (Endeavor Health P20 Center)

WEDNESDAY, DECEMBER 3

Memorial Union, Great Hall (800 Langdon Street, 4th floor)

10:00 AM to 12:30 PM **BADGE PICK UP:** Pick up your name badge and other meeting materials at the welcome table

11:45 AM to 12:30 PM **BUFFET LUNCH AVAILABLE FOR ALL**

12:30 PM **WELCOME: Kristina Penniston, PhD**, Distinguished Scientist, UW-Madison and PI of the CAIRIBU Interactions Core

12:45 PM **KEYNOTE SPEAKER: *Thomas Chi, MD, MBA***, Professor and Chairman, Department of Urology, University of Alabama Heersink School of Medicine
- Accelerating patient centered discovery in the lower urinary tract

1:10 PM **SESSION 1: BLADDER, URETHRA, AND VOIDING DYSFUNCTION**
MODERATORS: **Aaron Mickle, PhD** (Medical College of Wisconsin) and **Kaitlin Forsythe**, PhD candidate (UT Southwestern)

1. **Giulia Ippolito, MD, MS** – University of Michigan, Assistant Professor of Urology *(prior K12 Scholar, Univ Michigan KUroEpi Program)*
   - Decision making and outcomes in overactive bladder
2. **Natasha Wilkins, PhD** – Duke University, Postdoctoral Researcher, Pratt School of Engineering *(current K12 Scholar, Duke Univ KURe Program)*
   - Is variety the spice of life? Tailoring sacral nerve stimulation patterns for bladder function after spinal cord injury
3. **Jim Hokanson, PhD** – Medical College of Wisconsin, Assistant Professor, Biomedical Engineering *(prior K12 Scholar, Duke Univ KURe Program)*
   - Insights into the pathophysiology of urgency urinary incontinence from the LURN organ study
4. **Kim Stietz, PhD** – University of Wisconsin-Madison, Assistant Professor, School of Veterinary Medicine *(UW-Madison U54 O'Brien Center)*
   - Nature calls: influence of environmental and genetic control of lower urinary tract function in mice
5. **Chad Vezina, PhD** – University of Wisconsin-Madison, Professor and Chair, Department of Comparative Biosciences, School of Veterinary Medicine *(UW-Madison U54 O'Brien Center, UW-Madison KURe Program)*
   - Nature responds: serotonin signaling in urethral defense and dysfunction

2:30 PM **KEYNOTE SPEAKER: *Hanneke Verstegen, PhD***, Assistant Professor of Medicine, Harvard Medical School and Beth Israel Deaconess Medical Center
- Neuronal populations of Barrington's nucleus and their specialized roles in lower urinary tract function

2:50 PM **BREAK** (20 min) – **Refreshments available**

3:10 PM **BEST ABSTRACTS**
MODERATOR: **Cindy Amundsen, MD** (Duke University)

1. **Ashika Goel**, graduate student – Michigan State University (mentor: Nathan Tykocki, PhD)
   - ***Neurokinin A increases bladder mechanical compliance and augments transient pressure events***
2. **Ananya Pinnamaneni**, undergraduate student – Duke University (mentor: Michael Odom, PhD)
   - ***Estrogen-dependent mechanisms elevate urothelial c-fiber density and drive overactive bladder pathogenesis in female type 1 diabetic Akita mice***
3. **Hannah Anderson**, graduate student – Medical College of Wisconsin (mentor: Aaron Mickle, PhD)
   - ***Angiotensin II type 2 receptor agonism elicits sex differences in murine bladder contractile responses ex vivo***

3:40 PM **CAIRIBU Interactions Core Update**
Kris Penniston, PhD

3:55 PM **CAIRIBU U54 UROLOGY O'BRIEN CENTERS**
(1) Stanford University, **James Brooks, MD** (2) Columbia University, **Cathy Mendelsohn, PhD** (3) UW-Madison, **William Ricke, PhD**

4:40 PM **BREAKOUTS: *Strategic Research Planning & Discussions – Concurrent Sessions***

(1) CAIRIBU Urobiome Research Interest Group
- Panel & discussion moderated by ***Nicole De Nisco, PhD*** (UT Dallas) | Multicultural Greek Council Room

(2) Engaging Patients in Basic Science Research
- Panel & discussion moderated by ***Byron Hayes, PhD*** (Medical College of Wisconsin) | Beefeaters

(3) CAIRIBU Spina Bifida Research Interest Group
- Brainstorming discussion: how to build an interdisciplinary working group in this area; discussion to include pediatric and transitional urologists as well as basic scientists | National Panhellenic Council Room

(4) Injury and Regeneration in the Lower Urinary Tract
- Panel & discussion moderated by ***Johanna Hannan, PhD*** (UW-Madison) | Old Madison

5:45 PM **POSTER SESSION 1** (with cash bar reception until 7:30 PM)

1. **Adrian** – ECM, mitrochondria, metabolism	18. **Clevidence –** Non-invasive imaging	35. **Heye –** Evaluating pro-inflammatory agents
2. **Allen** – Impact of age and sex on bladder	19. **Cornelius –** T cell exhaustion in bladder	36. **Horne** – Validating mouse models of BPH
3. **Alom** – Modulation of bladder function	20. **Costa Lopes** – Beyond the bladder	37. **Huffman** – The relevance of age
4. **Ambrogi** – Serotonin signaling in UTI	21. **Crouch** – Establishing In vitro/vivo platforms	38. **Jensen-Wachspress** – Sleep fragmentation
5. **Anderson** – Angiotensin II receptor agonism	22. **Dalvi** – Fatty acid auxotrophy	39. **Jordan** – Effects of developmental exposure
6. **Barrett** – Aged rats pelvic radiation	23. **Dobihal** – Crosstalk in signaling systems	40. **Kasturi** – Sex-specific proteostasis
7. **Barteld** – Prepubertal leuprolide treatment	24. **Forsythe** – Development of xenium spatial	41. **Katz-James** – Relationship P2X3 and CGRP
8. **Bautista-Ruiz** – Prenatal exposure	25. **Gadhvi** – Comparative analysis prostate	42. **Kercsmar** – Potential role for retinoic acid
9. **Bergemann** - Development of a 3D bladder	26. **Garcia** – Selective elimination of cells	43. **Khanmammadova** – Preop pelvic floor PT
10. **Beserra** – Estrogen-mediated protection	27. **Goel** – Neurokinin A increases compliance	44. **Khosla** – Cystitis molecular changes in L3
11. **Bhandari** – Effects of prophage induction	28. **Gourdine** – Survival of the sweetest	45. **Kim** – Development of humanized mouse
12. **Bicki** – Using generative AI to characterize	29. **Hammel** – Characterizing radiation damage	46. **Lafin** – Lessons in multimodal cell LUT atlas
13. **Bogdan** – Notch signaling in urothelium	30. **Haramaty** – Accelerating Delphi consensus	47. **Lange** – Utilizing system usability screening
14. **Boron** – Purinergic receptor activation	31. **Harrie** – Characterization of normal bladder	48. **Lewis** – Co-culturing urinary lactobacilli
15. **Boyer** – Multiomic integration	32. **Harrison**-Comparing sequencing approaches	49. **Li** – PCR-based testing for urinary symptoms
16. **Chaudhary** – Mapping bladder, tibial nerve	33. **Hassan** – Role of membrane transporters	50. **Sun** – Data linkage from PKIDS study
17. **Chiu** – CAIRIBU mobile phone app	34. **He** – Development of low-cost catheter	51. **Yarger** – Delayed or forgone care for UTI

7:30 PM **GROUP DINNER @ Memorial Union for all meeting attendees**

CAIRIBU ANNUAL MEETING

THURSDAY, DECEMBER 4

Memorial Union, Great Hall (800 Langdon Street, 4th floor)

7:00 AM **BREAKFAST** (available until 8:30 AM)

7:45 AM **CAIRIBU BREAKFAST BOOT CAMP AND ROUNDTABLE – *Concurrent Sessions***

(1) BOOTCAMP: Using Existing Data for Urology Research
- Led by ***Chuck Scales, MD, MSHS*** (Duke University)
Room: Multicultural Greek Council Room

(2) ROUNDTABLE: Patient and Community Engagement in Urology Research
- Led by ***Alison Huang, MD, MPhil, MAS*** and ***Jennifer Yarger, PhD*** (UCSF)
Room: Old Madison

8:45 **CAIRIBU INTERACTIONS CORE**
Kris Penniston, PhD, PI, CAIRIBU Interactions Core

9:00 AM **SESSION 2: AGING IN THE LOWER URINARY TRACT**
MODERATORS: **Alexis Adrian**, PhD candidate (UW-Madison) and **Scott Bauer, MD, MS** (UC San Francisco)

1. **William Ricke, PhD** – University of Wisconsin-Madison, Professor, Department of Urology *(PI, UW-Madison Urology O'Brien Center)*
   - Targeting aged cells in benign prostatic hyperplasia/lower urinary tract symptoms: "out with the old, in with the new"
2. **Laura Pascal, PhD** – University of Pittsburgh, Assistant Professor, Department of Pharmacology and Chemical Biology
   - A termination factor for intergenic transcription regulates mitochondrial function and senescence in prostate stromal cells
3. **Indira Mysorekar, PhD** – Baylor College of Medicine, Professor of Medicine *(PI of prior CAIRIBU P20 Center at Washington University)*
   - Leveraging mouse models, organoids, and omics to decode protein homeostasis and sex differences in the aging bladder

3. **Ron Korstanje, PhD** – The Jackson Laboratory, Professor, Nathan Shock Center of Excellence in the Basic Biology of Aging
   - ***STUM as a novel regulator of mechanosensation in bladder function***
4. **Joan Neuner, MD** – University of Wisconsin-Madison, Visiting Professor and Associate Chief for Research, General Internal Medicine
   - ***Women's urinary incontinence and primary care: what support is most needed?***
5. **Abigail Shatkin-Margolis, MD** – UC San Francicso, Associate Professor of Urogynecology *(current K12 Scholar, UCSF KUroEpi Program)*
   - ***Managing pelvic floor disorders in an era of extended longevity***

10:30 AM **BIO BREAK** (15 min) – **Grab & Go refreshments available**

10:45 AM **KEYNOTE SPEAKER**: ***J. Quentin Clemens, MD, MSci, FACS***, Edward J McGuire Research Professor and Associate Chair of Urology, Research and Program Director of the FPMRS Fellowship; Co-PI of the CAIRIBU K12 Urological Epidemiology Institutional Research Career Development Program, University of Michigan

- ***Lessons learned from the Multidisciplinary Approach to the Study of Chronic Pelvic Pain Research Network***

11:10 AM Description of concurrent breakout discussion sessions

11:15 AM **BREAKOUTS: *"Big Picture" Discussions - Concurrent Sessions***

(1) Integrating Basic Science and Clinical Phenotyping in Urology – Led by ***Quentin Clemens, MD, MSci*** (University of Michigan)

(2) Building an Interdisciplinary BPH Research Network – Led by ***William Ricke, PhD*** (UW-Madison) and ***Doug Strand, PhD*** (UT Southwestern)

(3) Creating and Sustaining Interdisciplinary Clinical Research Collaborations – Led by ***Chuck Scales, MD, MSHS*** and **Cindy Amundsen, MD** (Duke University)

Room assignments: (1) Multicultural Greek Council Room; (2) Old Madison; (3) Beefeaters

12:15 PM **GROUP LUNCH for all meeting attendees**

1:15 PM **SESSION 3: UROLOGIC COMORBIDITIES**

MODERATORS: **Alexandra Bicki, MD, MPH** (UCSF) and **Mariah Jensen-Wachspress**, PhD candidate (Virginia Health Sciences)

1. **Dudley Lamming, PhD** – University of Wisconsin-Madison, Associate Professor, Department of Medicine-Endocrinology, Diabetes and Metabolism
   - ***Restriction of specific dietary amino acids to promote metabolic health, lifespan, and continence***
2. **Michael Odom, PhD** – Duke University, Assistant Professor of Urology *(prior K12 Scholar, Duke Univ KURe Program)*
   - ***Sex hormone-dependent regulation of diabetic bladder dysfunction***
3. **Johanna Hannan, PhD** – University of Wisconsin-Madison, Associate Professor of Urology
   - ***Endogenous repair mechanisms for diabetic erectile dysfunction***
4. **Alison Huang, MD, MPhil, MAS** – UC San Francisco, Professor of Medicine, Urology, and Epidemiology & Biostatistics *(PI, UCSF KUroEpi Program)*
   - ***Disentangling nocturia and insomnia: interdisciplinary investigation of bladder and sleep contributors in older adults***
5. **Aruna Sarma, PhD, MHA** – University of Michigan, Research Professor of Epidemiology, Professor of Urology *(Co-PI, Univ Michigan KUroEpi Program)*
   - ***Cardiovascular autonomic neuropathy and erectile dysfunction in type 1 diabetes: EKG biomarkers***
6. **Catherine Nam, MD** – University of Michigan, Clinical Assistant Professor of Urology *(current K12 Scholar, Michigan Univ KUroEpi Program)*
   - ***Trends in the distribution of male reproductive urologists in the United States in 2025 compared to 2005***

2:55 PM **BIO BREAK** (15 min) – **Grab & Go refreshments available**

3:10 PM Description of concurrent breakout discussion sessions

3:15 PM **BREAKOUTS: *Strategic Research Planning & Discussions – Concurrent Sessions***

(1) CAIRIBU Uro-Aging Research Interest Group
- Panel & discussion moderated by ***Scott Bauer, MD, MS*** (UC San Francisco) & ***Indira Mysorekar, PhD*** (Baylor College of Medicine) | Old Madison

(2) CAIRIBU Voiding Dysfunction Research Interest Group
- Panel & discussion moderated by ***Nathan Tykocki, PhD*** (Michigan State University) | Beefeaters

(3) Innate Immunity of the Urothelium
- Panel & discussion moderated by ***Byron Hayes, PhD*** (Medical College of Wisconsin) | National Panhellenic Council Room

(4) Integrating Basic Science and Clinical Phenotyping in Urology
- Panel & discussion moderated by ***Quentin Clemens, MD, MSci*** (University of Michigan) | Multicultural Greek Council Room

4:25 PM **SESSION 4: KIDNEY AND URINARY TRACT STONES**

MODERATORS: **John Lieske, MD** (Mayo Clinic Rochester) and **Margaret Knoedler, MD** (UW-Madison)

1. **David Chu, MD, MSCE** – Northwestern University, Associate Professor of Urology *(Co-I, Children's Hospital of Philadelphia Urology P20 Center)*
   - ***Phenotyping postoperative recovery outcomes after ureteroscopy in youth with nephrolithiasis: a PKIDS study***
2. **Jonathan Ellison, MD** – Medical College of Wisconsin, Associate Professor of Urologic Surgery *(Co-I, Children's Hospital of Philadelphia Urology P20 Center)*
   - ***Personalizing risk prediction for youth with nephrolithiasis through partnership***

3. **Po-Chun Hsu, PhD** – University of Chicago, Assistant Professor, Pritzker School of Molecular Engineering *(Co-I, Duke Univ Urology P20 Center)*
   - Nanofluid-enhanced laser lithotripsy for surgical management of urolithiasis
4. **Junqin Chen, PhD** – Duke University, Postdoctoral Associate, Pratt School of Engineering *(Duke Univ Urology P20 Center)*
   - Mechanism and risk assessment of thermal injury during laser lithotripsy
5. **Muthuvel Jayachandran, PhD** – Mayo Clinic Rochester, Associate Professor of Physiology *(Mayo Clinic Urology P20 Center)*
   - Renal cortex and medullary immune cells in urinary stone pathogenesis

5:45 PM **POSTER SESSION 2** (with cash bar reception until 7:30 PM)

52. **Limkar** – Urinary incontinence in Alzheimers	67. **Ridlon** – Nerve-evoked bladder muscle	82. **Tran** – Calcium imaging in cystitis
53. **Makori –** Oleic acid supplementation	68. **Robilotto** – Chronic losartan delivery	83. **Valdes-Arciniega –** Investigating the link
54. **Masino** – Transient receptor potential	69. **Rodriguez-Tirado –** PIEZ01 and urothelium	84. **Wattier –** Age-stratified clinical presentation
55. **McGlynn** – How variable is urine microbiota	70. **Rundquist** – Ascending UTIs	85. **West** – Kidney stone fatigue in lithotripsy
56. **Moore** – Exploring demographic and clinical	71. **Salaudeen** – Defining metabolic pathway	86. **White** – Investigating use of oxygen
57. **Myklebust** – Murine models of BPH	72. **Samadifam** – Functional MRI analysis	87. **Wilkins** – Burst-patterned sacral nerve stim
58. **Nair** – Serotonin-induced contractions	73. **Seifert** – Effect of estrogen siganling	88. **Wu** – Glycoproteomic analysis of BPH
59. **Neugent** – Urinary biochemical ecology	74. **Spanier** – Interplay of meal-timing	89. **Yarger** – Telehealth vs. in-person visits
60. **Ng** – Building collaborative research	75. **Stuedemann** – Investigating changes	90. **Zaher** – Rare variant association study
61. **Patel** – Low-rank adaptation model for CT	76. **Su** – Clinical correlates and prognosticators	91. **Zhang** – Identification of G quadruplex
62. **Pelissero** – Single-cell antimicrobial	77. **Sun** – Post-op trajectories of pain	92. **Zhu** – Phosphodiesterase-5 inhibitor
63. **Pinnamaneni** – Estrogen mechanisms	78. **Talluri** – Spatial transcriptomics mapping	93. **Allen** – Spoti-find void spot assay
64. **Polasko** – Intracellular ATP production	79. **Tanaka** – Neuro-uro mechanisms in LUTD	94. **Haramaty** – Defining what to say and when
65. **Rengo** – Intrinsic G-protein receptor	80. **Tello** – Paternal transgenerational effects	95. **Horne** – GRP78-mediated endoplasmic
66. **Reske** – Lineage tracing in efferent duct	81. **Tlapa** – PCB exposure and urethra	96. **Ippolito** – Longitudinal study of urobiome

7:00 PM **AWARDS** – Best Abstract awards, other CAIRIBU Community awards

8:00 PM = SMALL GROUP DINNERS ON YOUR OWN

Following the poster session/reception, **we encourage small groups to get together at local restaurants**. A list of local establishments for which reservations are made is at the CAIRIBU Interactions Core table. HOSTS FOR EACH SMALL GROUP DINNER are listed below. **Sign up at the CAIRIBU Interactions Core table by 2:00 PM Thursday**. Restaurants with reservations* are noted with an asterisk. Meet at the restaurant by 8:00 PM.

GROUP 1: **Cento*** (***Walid Farhat, MD***, *UW-Madison)*
GROUP 2: **Red*** (***Laura Pascal, PhD***, *University of Pittsburgh)*
GROUP 3: **Eno Vino Downtown*** (***Whitney Sweeney, PhD***, *UW-Madison)*
GROUP 4: **Heritage Tavern*** (host TBD)
GROUP 5: **Izakaya Kuroyama*** (***Michael Neugent, PhD***, *UT Dallas)*
GROUP 6: **Madison's*** (***Indira Mysorekar, PhD***, *Baylor College of Medicine)*
GROUP 7: **Porta Bella*** (***Kris Penniston, PhD***, *CAIRIBU Interactions Core)*
GROUP 8: **Lombardino's** (***Will Ricke, PhD***, *UW-Madison*) – *NO RESERVATIONS ALLOWED*
GROUP 9: **Greenbush Bar** (host TBD) – *NO RESERVATIONS ALLOWED*
GROUP 10: **Dotty Dumpling's Dowry** (host TBD) – *NO RESERVATIONS ALLOWED*
GROUP 11: **The Cooper's Tavern** (host TBD) – *RESERVATIONS NOT REQ*
GROUP 12: **Bistro 525** (inside DoubleTree Hotel, host TBD) – *RESERVATIONS NOT REQ*

FRIDAY, DECEMBER 5

Gordon Commons Dining & Event Center, Symphony Room (770 W. Dayton Street)

7:30 AM **BREAKFAST** (available until 8:30 AM)

8:15 AM **SESSION 5: BENIGN PROSTATE AND LOWER URINARY TRACT DYSFUNCTION**
MODERATORS: **Shane Wells, MD** (University of Michigan) and **Sonia Fargue, MD, PhD** (University of Alabama at Birmingham)

1. **Nadia Lanman, PhD** – Purdue University, Research Associate Professor of Comparative Pathobiology *(Co-I, Endeavor Health Urology P20 Center)*
   - AIRE-deficient mice as an emerging model for understanding the relationship between inflammation and benign prostatic hyperplasia
2. **Robert West, MD, PhD** – Stanford University, Professor of Pathology *(project leader, Stanford Univ U54 O'Brien Center)*
   - Periurethral fibroblastic foci
3. **Jonathan Pollack, MD, PhD** – Stanford University, Professor of Pathology *(project leader, Stanford Univ U54 O'Brien Center)*
   - Stromal inductive factors in benign prostatic hyperplasia
4. **Alexandra Polasko, PhD** – Stanford University, Postdoctoral Researcher, Department of Urology *(current K12 Scholar, Stanford KURe Program)*
   - Bone morphogenetic protein 5 (BMP5) alters cell-type composition and promotes differential growth in human normal and BPH patient-derived xenograft (PDX) models
5. **Douglas Strand, PhD** – University of Texas Southwestern, Associate Professor, Department of Urology *(project leader, UW-Madison U54 O'Brien Center)*
   - Spatial transcriptomics in human lower urinary tract research

9:40 AM **CAIRIBU P20 UROLOGY FORWARD CENTERS**

1. **Po-Chun Hsu, PhD** (University of Chicago) representing the P20 Center at ***Duke University***, 2022-2025 *(PI, Pei Zhong, PhD)*
2. **John Lieske, MD** (Mayo Clinic Rochester) representing the P20 Center at ***Mayo Clinic Rochester***, 2022-2025 *(PIs, John Lieske, MD and Kevin Koo, MD, MPH)*
3. **Simon Hayward, PhD** (Endeavor Health) representing the P20 Center at ***Endeavor Health***, 2024-2027 *(PI, Simon Hayward, PhD)*
4. **Jonathan Ellison, MD** (Medical College of Wisconsin) representing the P20 Center at ***Children's Hospital of Philadelphia***, 2024-2027 *(PI, Gregory Tasian, MD, MSc, MSCE)*

10:10 AM **CAIRIBU RESEARCH STRATEGY SPRINT: Reports, plans, and progress**
MODERATOR: **Chad Vezina, PhD** (UW-Madison)

1. **Nicole De Nisco, PhD** – UT Dallas, Associate Professor of Biological Sciences; Adjunct Professor of Urology, UT Southwestern Medical Center
   - CAIRIBU Urobiome Research Interest Group
2. **Nathan Tykocki, PhD** – Michigan State University, Associate Professor of Pharmacology and Toxicology *(project leader, prior Urology P20 Center)*
   - CAIRIBU Uro-Voiding Research Interest Group
3. **Scott Bauer, MD, MS** - UC San Francisco, Associate Professor of Medicine and Urology *(prior K12 scholar, UCSF KUroEpi Program)*
   - CAIRIBU Uro-Aging Research Interest Group

10:40 AM **BIO BREAK** (20 min) – **Refreshments available**

11:00 AM **CAIRIBU COMMUNITY RECOGNITIONS AND NEXT STEPS FOR CAIRIBU COMMUNITY**
Kris Penniston, PhD, PI, CAIRIBU Interactions Core *(UW-Madison)*

11:10 AM **SESSION 6: UROBIOME AND INFECTION IN THE URINARY TRACT**
MODERATORS: **Marcela Ambrogi, PhD** (UW-Madison) and **Keyana Lewis**, PhD candidate (University of Alabama at Huntsville)

1. **Jonathan Barasch, MD, PhD** – Columbia University, Professor of Medicine and Pathology & Cell Biology *(Co-PI, Columbia Univ U54 O'Brien Center)*
   - Bacterial and non-bacterial cystitis
2. **Arnold Salazar, PhD** – Baylor College of Medicine, Senior Staff Scientist *(CAIRIBU Urobiome Research Interest Group)*
   - Protein homeostasis in the aging bladder: maintenance, sexual dimorphism, and infection
3. **Chelsie Armbruster, PhD** – University at Buffalo (SUNY), Associate Professor of Microbiology & Immunology *(CAIRIBU Urobiome Research Interest Group)*
   - From colonization to infection: unraveling polymicrobial dynamics in the catheterized urinary tract
4. **Genevieve Dobihal, PhD** – Columbia University, Postdoctoral Research Scientist *(Columbia Univ U54 O'Brien Center)*
   - A novel post-translational modification of fimbriae drives pathogenicity in Klebsiella pneumoniae
5. **Nicole Gilbert, PhD** – Washington University, Assistant Professor of Pediatrics, Infectious Diseases, Molecular Microbiology, and Obstetrics & Gynecology *(CAIRIBU Urobiome Research Interest Group)*
   - Effects of Gardnerella on the urothelium: implications for urinary tract infection
6. **Michael Neugent, PhD** – University of Texas at Dallas, Postdoctoral Researcher *(CAIRIBU Urobiome Research Interest Group)*
   - Bridging human cohort observations and mechanistic microbial biochemistry: novel nutrient requirements of urogenital Lactobacillus

12:50 PM **TAKE HOME MESSAGES:** Trainees & Early Stage Investigators
MODERATOR: **Nicholas Steers, PhD** (Columbia University)

SESSION 1: **Monica Ridlon**, graduate student – University of Wisconsin-Madison *(mentor, Kimberly Keil Stietz, PhD)*

SESSION 2: **Alexis Boron**, graduate student – Michigan State University *(mentor, Nathan Tykocki, PhD)*

SESSION 3: **Acacia White, PhD**, postdoctoral associate – University of Wisconsin-Madison *(mentor, Johanna Hannan, PhD)*

SESSION 4: **Grant West, PhD**, postdoctoral associate – Duke University *(mentor, John Dolbow, PhD)*

SESSION 5: **Allison Rundquist**, graduate student – University of Wisconsin-Madison *(mentor, Chad Vezina, PhD)*

SESSION 6: **Keisha Harrison, PhD**, postdoctoral associate – Oregon Health & Science University *(mentor, Lisa Karstens, PhD)*

1:20 PM **CONCLUDING REMARKS AND MEETING EVALUATION**
Kris Penniston, PhD, PI, CAIRIBU Interactions Core *(UW-Madison)*

1:30 PM **ADJOURN**

3:00 PM **POST-MEETING DEBRIEF AND WIND DOWN**
For anyone remaining, please join CAIRIBU Interactions Core staff and other meeting attendees at Der Rathskeller, the historic and famous UW-Madison watering hole at the Memorial Union

Collaborating for the Advancement of Interdisciplinary Research in Benign Urology

CAIRIBU CENTERS AND PROGRAMS

K12 Institutional Career Development Programs

- **Urological Epidemiology K12 (KUroEpi) Institutional Research Career Development Programs**
  1. ***University of Michigan KUroEpi Program*** (PIs, Aruna Sarma, PhD, MHA and Quentin Clemens, MD)
  2. ***University of California San Francisco*** (PI, Alison Huang, MD, MPhil, MAS)
- **Multidisciplinary K12 Urologic Research (KURe) Career Development Programs**
  1. ***Duke University*** (PI, Cindy Amundsen, MD)
  2. ***University of Wisconsin-Madison*** (PI, Chad Vezina, PhD)
  3. ***Stanford University*** (PIs, Joseph Liao, MD and James Brooks, MD)

Fostering Research With Additional Resources and Development (FORWARD) Urology P20 Centers

1. ***Duke University*** (PI, Pei Zhao, PhD), 2022-2025
2. ***Mayo Clinic Rochester*** (PIs, John Lieske, MD and Kevin Koo, MD, MPH), 2022-2025
3. ***Children's Hospital of Philadelphia*** (PI, Gregory Tasian, MD, MSc, MSCE and early-stage investigator collaborators: David Chu, MD, MSCE, Lurie Children's Hospital; Jonathan Ellison, MD, Children's Wisconsin; & Jing Huang, PhD, Children's Hospital of Philadelphia), 2024-2027
4. ***Endeavor Health*** (PI, Simon Hayward, PhD and early-stage investigator collaborators: Renee Vickman, PhD, Endeavor Health; Petra Popovics, PhD, Virginia Health Sciences at Old Dominion University; & Nadia Lanman, PhD, Purdue University), 2024-2027

George M. O'Brien Collaborative (U540 Urology Research Centers

1. ***Stanford University*** (PI, James Brooks, MD), 2021-2026
2. ***Columbia University*** (PIs, Cathy Mendelsohn, PhD; Jonathan Barasch, MD, PhD; Ali Gharavi, MD; & Anne-Catrin Uhlemann, MD, PhD), 2020-2025
3. ***University of Wisconsin-Madison*** (PI, William Ricke, PhD) – ended most recent grant cycle (2024) and no-cost extention (2025)

CAIRIBU (U24) Interactions Core

- ***University of Wisconsin-Madison*** (PI, Kristina Penniston, PhD)

Prior CAIRIBU P20 Urology Centers

1. ***University of California San Francisco***, 2016-2018 (PI, Thomas Chi, MD, MBA)
2. ***Beth Israel Deaconess Medical Center/Harvard University***, 2018-2020 (PI, Mark Zeidel, MD)
3. ***Columbia University***, 2018-2020 (PI, Simone Sanna-Cherchi, MD)
4. ***NorthShore University HealthSystem***, 2018-2020 (PI, Simon Hayward, PhD)
5. ***University of Alabama at Birmingham***, 2018-2020 and also 2020-2022 (PI, Dean Assimos, MD)
6. ***University of Tennessee***, 2018-2020 *(PI, Robert Wake, MD)*
7. ***Washington University***, 2018-2020 *(PI, Indira Mysorekar, PhD)*
8. ***Albert Einstein College of Medicine***, 2019-2021 (PI, Kelvin Davies, PhD)
9. ***Duke University***, 2019-2021 and also 2022-2025 (PI, Pei Zhong, PhD)
10. ***University of Tennessee Health Science Center***, 2019-2021 (PI, Robert Wake, MD)
11. ***Vanderbilt University Medical Center***, 2019-2021 (PI, Maria Hadjifrangiskou, PhD)
12. ***Children's Hospital of Philadelphia***, 2020-2022 (PI, Gregory Tasian, MD, MSc, MSCE)
13. ***Medical College of Wisconsin***, 2020-2022 (PI, Kathryn Flynn, PhD)
14. ***Corewell Health William Beaumont University Hospital***, 2021-2023 (PIs, Bernadette Zwaans, PhD and Michael Chancellor, MD)

Prior CAIRIBU U54 Urology Centers

1. ***Mayo Clinic Rochester***, 2013-2018 (PI, John Lieske, MD)
2. ***University of Pittsburgh***, 2016-2021 (PI, Zhou Wang, PhD)

NIH/NIDDK Division of Kidney, Urologic, and Hematologic Diseases

Staff for the Urology Centers Program and their primary responsibilties and activities:

1. **Chris Mullins, PhD** – Kidney and Urology Cell Biology, Collaborative Grants Program (for program project grants and resource-related studies)
2. **Deepak Nihalani, PhD** – George M. O'Brien Kidney and Urologic Disease Centers
3. **William (Stuart) Reynolds, MD, MPH** – Clinical and Translational Research in Women's Urology, Clinical and Translational Pediatric Urology
4. **Tracy Rankin, PhD, MPH** – KUH Deputy Director, Kidney and Urology Career Development and Training, Urology Molecular Endocrinology

2025 CAIRIBU ANNUAL MEETING

December 3-5

Madison, WI

ABSTRACT REVIEWS AND POSTER CATEGORIES

The annual CAIRIBU meeting is unique in many ways. One of these is that **only trainees and early-stage investigators (those within 10 years of their terminal degree) may submit abstracts.** Another unique feature is that **each abstract is reviewed weeks before the meeting by up to 4 reviewers**, most of whom are established investigators or junior faculty, experts in their fields. Anonymized reviews are then provided to the trainees after the CAIRIBU meeting so that they may benefit from reviewers' comments and suggestions. This year, due to the record number of abstracts, more reviewers than ever participated in reviewing abstracts. While most, about 75%, have or have had some relationship with the CAIRIBU Community (e.g., as PI of a CAIRIBU urology Center or Program), others are investigators from the broader urology research community who recognize the significance and value of the abstract review process at the CAIRIBU meeting. Reviewers reviewed 3.9 ± 1.6 abstracts (min-max, 2-9). Three "best abstracts" were awarded based on reviewers' scores – see next page.

ABSTRACT REVIEWERS FOR THE 2025 CAIRIBU MEETING ARE LISTED BELOW

Rosalyn Adam, PhD
Cindy Amundsen, MD
Dean Assimos, MD
Lauren Baker, PhD, DVM
Linda Baker, MD
Jonathan Barasch, MD, PhD
Scott Bauer, MD, MS
Vinaya Bhatia, MD
James Brooks, MD
Heidi Brown, MD, MAS
Catherine Brownstein, PhD
Jeremy Burton, PhD
LaTasha Crawford, VMD, PhD
Smita De, MD
Nicole De Nisco, PhD
Sonia Fargue, MD, PhD
Walid Farhat, MD, GPLLM
Nicole Gilbert, PhD
Matthew Grimes, MD
Johanna Hannan, PhD
Byron Hayes, PhD
Simon Hayward, PhD
Gerald Herrera, PhD
James Hokanson, PhD
Giulia Ippolito, MD, MS
Zohreh Izadifar, PhD
Muthuvel Jayachandran, PhD
Travis Jerde, PhD
Lisa Karstens, PhD
John Knight, PhD
Margaret Knoedler, MD
Kevin Koo, MD, MPH
Ronald Korstanje, PhD
Marvin Langston, PhD
D'Feau Lieu, MD, PhD
Michael Lipkin, MD
Teresa Liu, PhD
Jody Lulich, DVM, PhD
Paul Marker, PhD
Cathy Mendelsohn, PhD
Aaron Mickle, PhD
Aaron Miller, PhD
Tanecia Mitchell, PhD
Indira Mysorekar, PhD
Michael Neugent, PhD
Michael Odom, PhD
Laura Pascal, PhD
Kristina Penniston, PhD, RD
Jonathan Pollack, MD, PhD
Petra Popovics, PhD
Scott Quarrier, MD, MS
Eva Raphael, MD, MPH
William Ricke, PhD
Alejandro Roldán-Alzate, PhD
Hannah Ruetten, DVM, PhD
Zhina Sadeghi, MD
Arnold Salazar, PhD
Aruna Sarma, PhD, MHA
Charles Scales, Jr., MD, MSHS
Henry Schreiber, PhD
Nicholas Steers, PhD
Kimberly Keil Stietz, PhD
Douglas Strand, PhD
Necole Streeper, MD
Sylvia Suadicani, PhD
Whitney Sweeney, PhD
Tanya Sysoeva, PhD
Gregory Tasian, MD, MSc, MSCE
Nathan Tykocki, PhD
Anne-Catrin Uhlemann, MD, PhD
Miguel Verbitsky, PhD
Hanneke Verstegen, PhD
Chad Vezina, PhD
Renee Vickman, PhD
Stephen Walker, PhD
Zhou Wang, PhD
Shane Wells, MD
Robert West, MD, PhD
Alan Wolfe, PhD
Pei Zhong, PhD
Bernadette Zwaans, PhD

POSTER CATEGORIES

A 'best poster" will be selected among the 12 poster categories listed below. Posters are distributed across 2 poster sessions, one on Wednesday and the other on Thursday, both at 5:45 PM.

1. Bladder physiology
2. BPH I – Lower urinary tract symptoms
3. BPH II – Molecular/cellular mechanisms
4. Clinical I – Diagnostics, imaging, therapeutics, and devices
5. Clinical II – Patients and practice patterns
6. Environmental exposures, injury, and sex differences
7. Experimental techniches/approaches
8. Hormonal mechaniss
9. Neurouro, neurogenic bladder, neuromodulation
10. Renal physiology
11. Urobiome I – Basic science
12. Urobiome II – Clinical/translational

BEST ABSTRACTS

Three best abstracts were selected among 98 scored abstracts.

NEUROKININ A INCREASES BLADDER MECHANICAL COMPLIANCE AND AUGMENTS TRANSIENT PRESSURE EVENTS

Ashika Goel,[1] *Sara Roccabianca,*[2] *Nathan R. Tykocki*[1]

[1]Department of Pharmacology and Toxicology, Michigan State University, East Lansing, MI; [2]Department of Mechanical Engineering and Materials Science, Washington University, St. Louis, MO

ESTROGEN-DEPENDENT MECHANISMS ELEVATE UROTHELIAL C-FIBER DENSITY AND DRIVE TO OVERACTIVE BLADDER PATHOGENESIS IN FEMALE TYPE 1 DIABETIC AKITA MICE

Ananya Pinnamaneni,[1] *Francis Hughes Jr.,*[2] *J. Todd Purves,*[2] *Michael Odom*[2]

[1]Duke University, Durham, NC; [2]Duke University School of Medicine, Durham, NC

ANGIOTENSIN II TYPE 2 RECEPTOR AGONISM ELICITS SEX DIFFERENCES IN MURINE BLADDER CONTRACTILE RESPONSES *EX VIVO*

Hannah A. Anderson,[1] *Firoj Alom,*[2] *Bhavana Talluri,*[2] *Aaron D. Mickle*[1-4]

[1]Joint Department of Biomedical Engineering, Medical College of Wisconsin and Marquette University, Milwaukee, WI; [2]Department of Physiology, Medical College of Wisconsin, Milwaukee, WI; [3]Department of Neurosurgery, Medical College of Wisconsin, Milwaukee, WI; [4]Department of Urology Medical College of Wisconsin, Milwaukee, WI