12:50 pm **CHECK IN:** Test your audio, video, chat box, and raising hands for asking questions.

1:00 pm **WELCOME:** Cindy L. Amundsen, MD, Uke KURe PI and PD

1:10 pm **ORAL PLATFORM PRESENTATIONS:**

Moderator: Maryrose Sullivan, PhD, Harvard, KURe Advisory Committee

*Basic Science Award*  *Loss of Osteopontin Leads to the Resolution of E. Coli-Induced Prostatic Inflammation and Fibrosis*

Petra Popovics, PhD, Univ. of Wisconsin, School of Medicine and Public Health

*Translational Science Award*  *Potential Diagnostic Value of Urine MicroRNAs for Female Patients with Overactive Bladder*

Stephanie Sirmakesyan, BS, McGill University, Montreal, Quebec

*KURe Scholar*  *How Relative is Bladder ‘Continence’ for Those with Spina Bifida: Data From the National Spina Bifida Patient Registry*

Maryellen Kelly, DNP, CPNP, MHSc, Duke Univ. School of Nursing

1:55 pm **ORAL ABSTRACT PRESENTATIONS** – Concurrent Sessions

**Session A: Quality Improvement/ Prediction/ Economics/ Outcomes**

Moderators: Maryellen Kelly, DNP, CPNP, MHSc, Duke, KURe Scholar

Rohit Tejwani, MD, Duke, Previous KURe Symposium Awardee

**Session B: Voiding Dysfunction & Urinary Tract Infection**

Moderators: Karl Kreder, MD, MBA, Univ. of Iowa, KURe Advisory Committee

Tatyana Sysoeva, PhD, Univ. of Alabama, KURe Alumni Scholar

**Session C: Nephrolithiasis & Overactive Bladder**

Moderators: Charles Scales, Jr., MD, MSHS, Duke, KURe Mentor

Nazema Siddiqui, MD, Duke, KURe Alumni Scholar

3:10 pm **BREAK**

3:20 pm **NEUROUROLOGY KEYNOTE SPEAKER:**

Janet R. Keast, PhD, Prof. and Chair Anatomy & Neuroscience, Univ. of Melbourne

*Constructing a Sacral Visceral Connectome to Advance Bioelectronic Medicine*

Moderator: Eric Gonzalez, PhD, Duke, KURe Alumni Scholar

4:00 pm **PANEL DISCUSSION: BEYOND UROLOGY: HOW COLLABORATIONS ARE ADVANCING NEUROUROLOGY**

Moderators: Jim Hokanson, PhD, Med. College Wisconsin, KURe Alumni Scholar

Armand Alkanjari, MD, Duke, Urology Resident

Panelists:

Tim Bruns, PhD, Associate Professor, Biomedical Engineering, Univ. of Michigan

Janet R. Keast, PhD, Professor, Anatomy & Neuroscience, Univ. of Melbourne

Rose Khavari, MD, Associate Professor, Urology, Weill Cornell Medicine

Michael R. Ruggieri, Sr, PhD, Professor, Anatomy & Cell Biology, Temple Univ

4:50 pm **CLOSING & PREVIEW OF FRIDAY EVENTS:**

Cindy L. Amundsen, MD, KURe PI and Program Director

5:00 pm **THURSDAY ADJOURNMENT**
11:45 am  SMALL GROUP DISCUSSIONS WITH EXPERTS (signup required)
12:50 pm  CHECK IN: Test your audio, video, chat box, and raising hands for asking questions.
1:00 pm   WELCOME: Cindy L. Amundsen, MD, Duke KURe PI and PD
1:10 pm   SEXUAL MEDICINE KEYNOTE SPEAKER:
          Arthur L. Burnett, II, MD, Patrick C. Walsh Professor of Urology, Johns Hopkins
          Nitric Oxide Revolutionized Lower Genitourinary Tract Therapies: From Bench to Bedside
          Moderator: Michael Odom, PhD, Duke, KURe Scholar
1:50 pm   ORAL ABSTRACT PRESENTATIONS – Concurrent Sessions
          **Session D: Benign Prostatic Hyperplasia**
          Moderators: Philip Walther, MD, PhD, Duke, KURe Advisory Committee
          Leonid Aksenov, MD, Duke, Previous KURe Symposium Awardee
          **Session E: Reconstructive Surgery & Pelvic Medicine**
          Moderators: Matthew Barber, MD, MHS, Duke, KURe Advisory Committee
          Brent Nosé, MD, MD, Duke, Previous KURe Symposium Awardee
          **Session F: Neurourology**
          Moderators: Jennifer Anger, MD, MHS Cedars Sinai, KURe Advisory Committee
          Zachary Dionise, MD, Duke, Previous KURe Symposium Awardee
3:05 pm   BREAK
3:15 pm   ORAL PLATFORM PRESENTATIONS:
          Moderator: Mary Barbe, PhD, FAA, Temple Univ., KURe Advisory Committee
          **Clinical Science Award** Sustained Reduction in Catheter-Associated Urinary Tract Infections using Multi-Faceted Strategies led by Champions: A Quality Improvement Initiative
          Sonali Advani, MBBS, MPH, Infectious Diseases, Duke Univ., KURe Scholar
          **KURe Scholar** NLRP3-Dependent Mechanisms Responsible for Urothelial Barrier Dysfunction in Diabetic Mice
          Michael Odom, PhD, Urology, Duke University
          **KURe Scholar** Effect of Epidural Kilohertz Frequency Spinal Cord Stimulation on Lower Urinary Tract Function in a Rat Spinal Cord Transection Model
          Casey Steadman, PhD, Biomedical Engineering, Duke University
4:00 pm   PANEL DISCUSSION:
          A MULTIDISCIPLINARY APPROACH TO SEXUAL MEDICINE
          Moderators: Casey Steadman, PhD, Duke, KURe Scholar
          Christopher Kim, MD, Duke Urology Resident
          Panelists:
          Arthur Burnett, MD, Professor, Urology, Johns Hopkins
          Anita Clayton, MD, Chair, Psychiatry & Neurobehavioral Sci., Univ. of Virginia
          Lesley Marson, PhD, VP, Preclinical Research, Dignify Therapeutics, NC
          Clinton Webb, PhD, Dir. Cardiovascular Translational Research Ctr, Univ. of SC
4:50 pm   PRESENTATION OF TRAINEE AWARDS AND CLOSING REMARKS
          Friederike L. Jayes, DVM, PhD, KURe Program Coordinator
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We Thank our Sponsors

Grant K12DK100024 from the NIDDK:
Duke Multidisciplinary K12 Urologic Research Career Development Program (KURe)

Department of Obstetrics and Gynecology, Duke University School of Medicine
Department of Surgery, Division of Urology, Duke University School of Medicine
Department of Biomedical Engineering, Duke University

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Jennifer Anger, MD, MPH
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Maragatha Kuchibhatla, PhD
Glenn Preminger, MD
Maryrose Sullivan, PhD
Philip Walther, MD, PhD, MBA, FACS

Distinguished Judges

Trainee Platform Presentation Awards
KURe Advisory Board

Oral Abstract Presentation Awards
Wade Bushman, MD, PhD
Tim Bruns, PhD
Arthur L. Burnett, MD, MBA, FACS
Anita Clayton, MD, DLFAPA, IF
Rose Khavari, MD
Lesley Marson, PhD
Michael Ruggieri, Sr. PhD
R. Clinton Webb, PhD

Research Day Organizing Committee
Cindy L. Amundsen, MD, Duke KURe PI and Program Director, Duke Ob-Gyn
Friederike L. Jayes, DVM, PhD, Duke KURe Program Coordinator, Duke Ob-Gyn
Rebecca Kameny, PhD, Research Program Leader, Duke Ob-Gyn
Robin Phillips, CME Program Coordinator, Duke Urologic Surgery
### Platform Presentations Thursday (1:10 pm)

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<td>Popovics</td>
<td>Loss of osteopontin leads to the resolution of E. coli-induced prostatic inflammation and fibrosis</td>
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<td>OP-02</td>
<td>Sirmakesyan</td>
<td>Potential diagnostic value of urine microRNAs for female patients with overactive bladder</td>
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<td>OP-03</td>
<td>Kelly</td>
<td>How relative is bladder ‘continence’ for those with spina bifida: data from the National Spina Bifida Patient Registry</td>
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### Platform Presentations Friday (3:15 pm)

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<td>OP-05</td>
<td>Steadman</td>
<td>Effect of epidural kilohertz frequency spinal cord stimulation on lower urinary tract function in a rat spinal cord transection model</td>
</tr>
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<td>OP--06</td>
<td>Odom</td>
<td>NLRP3-Dependent Mechanisms Responsible for Urothelial Barrier Dysfunction in Diabetic Mice</td>
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### Concurrent Session A (Thursday 1:55 pm)

**Quality Improvement/Prediction/Economics/Outcomes**

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<td>Rezaei Ghalechi</td>
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<td>A--03</td>
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<td>A--04</td>
<td>Luchristt</td>
<td>Cost-effectiveness analysis of universal cystoscopy at the time of benign laparoscopic hysterectomy.</td>
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<tr>
<td>A--05</td>
<td>Luchristt</td>
<td>Timing of diagnosis of complex lower urinary tract injury in the 30-day postoperative period following benign hysterectomy</td>
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<tr>
<td>A--06</td>
<td>Richter</td>
<td>Vaginal Complications after Bladder Cystectomy: Results from a Medicare Sample</td>
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<td>A--07</td>
<td>Lembrikova</td>
<td>Automated machine learning segmentation and measurement of urinary stones on CT scan</td>
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<td>A--08</td>
<td>Krischak</td>
<td>Outcomes of an Algorithmic, Multidisciplinary Approach to Rectourethral Fistula Repair: A Pre- and Post-Intervention Quasi-Experimental Study</td>
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<td>A--09</td>
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<td>B--01</td>
<td>Allkanjari</td>
<td>NLRP3 mediates underactive bladder development in Akita diabetic male mice at 15 week of age</td>
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<td>B--02</td>
<td>Gonzalez</td>
<td>Voiding and muscle contractility dysfunction in a rat model of detrusor underactivity</td>
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<td>Scharpf</td>
<td>The role of connective tissue growth factor in the development of lower urinary tract dysfunction</td>
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<td>B--04</td>
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<td>Hyperinnervation and chronic mast cell activity in bladder pain syndrome following recurrent urinary tract infection</td>
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<td>Montalbetti</td>
<td>Bladder infection with uropathogenic E. Coli increases the excitability of afferent neurons</td>
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<td>Spatial distribution of extended-spectrum beta-lactamase-producing Escherichia coli isolated from patients with community-onset bacteriuria: results from 2014 to 2020 in an urban safety-net healthcare system</td>
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<td>Whelan</td>
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### Concurrent Session C (Thursday 1:55 pm)  
*Nephrolithiasis & Overactive Bladder*

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### Concurrent Session D (Friday 1:50 pm)  
*Benign Prostatic Hyperplasia*

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<td>Jang</td>
<td>White matter contribution in men with lower urinary tract symptoms attributable to chronic benign prostatic obstruction</td>
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<td>D--02</td>
<td>Chen</td>
<td>Stimulation of prostatic epithelial cell proliferation by androgen-regulated paracrine signaling from primary BPH stromal cells</td>
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<td>D--03</td>
<td>Dai</td>
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<td>Binoy Joseph</td>
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### Concurrent Session E (Friday 1:50 pm)

**Reconstructive Surgery & Pelvic Medicine**

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<td>E--01</td>
<td>Amato</td>
<td>Our differences make us complete: The identification of novel cell populations in penis development and their involvement in hypospadias</td>
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<td>Inouye</td>
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<td>Infection Risk Following Implant Revision, Does Component Exchange Matter?</td>
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<td>E--06</td>
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<td>Women's Experience of Their First Sexual Encounter After Urinary Incontinence and/or Pelvic Organ Prolapse Surgery: A Qualitative Study</td>
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### Concurrent Session F (Friday 1:50 pm)

**Neurourology**

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<td>Mapping urethral responses during pudendal neurostimulator implant surgery with a multi-sensor catheter</td>
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<td>Quantifying anal sphincter recruitment with clinical pudendal nerve stimulation</td>
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<td>Choksi</td>
<td>Correlation between white matter integrity and lower urinary tract symptoms in female multiple sclerosis patients: 7-Tesla fMRI evaluation</td>
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Trainee/Scholar Basic Science Award (OP--1)

Loss of osteopontin leads to the resolution of E. coli-induced prostatic inflammation and fibrosis

Popovics, Petra1,2,3; Jain, Asha1,2; Skalitzky, Kegan O1,2; Schroeder, Elise1,2; Ruetten, Hannah1,2,4; Cadena, Mark1,2,4; Vezina, Chad M1,2,4, Ricke, William R1,2

1Department of Urology, School of Medicine and Public Health, University of Wisconsin-Madison, Madison, WI
2George M. O’Brien Center of Research Excellence, University of Wisconsin, School of Medicine and Public Health, Madison, WI
3K12 Kure, School of Veterinary Medicine, University of Wisconsin-Madison, Madison, WI
4Department of Comparative Biosciences, School of Veterinary Medicine, University of Wisconsin-Madison, Madison, WI

Research Area: Benign Prostatic Hyperplasia

Trainee/Scholar Translational Science Award (OP--2)

Potential diagnostic value of urine microRNAs for female patients with overactive bladder

Sirmakesyan, Stephanie1; Cammisotto, Philippe1; Mossa, Abubakr H1.; Shamout, Samer1; Campeau, Lysanne1,2

1. Lady Davis Institute for Medical Research, McGill University, Montreal, Quebec, Canada.
2. Urology Department, Jewish General Hospital, Montreal, Quebec, Canada.

Research area: Female Pelvic Medicine, Overactive Bladder (OAB), Voiding Dysfunction/Urinary Retention

KURe Scholar (OP--3)

How relative is urinary ‘continence’ for those with spina bifida: data from the National Spina Bifida Patient Registry

Kelly, Maryellen S1,2; Routh, Jonathan C2; Castillo Heidi3; Tanaka Stacy T4; Wiener, John S2
1 Division of Healthcare of Women and Children, Duke University School of Nursing, Durham NC; Division of Urology, Department of Surgery, Duke University School of Medicine, Durham NC; 3 Division of Developmental and Behavioral Pediatrics, Texas Children’s Hospital/Baylor College of Medicine, Houston, TX; 4 Department of Urology, Vanderbilt University Medical Center, Nashville, TN

Research area: Neuourology
Trainee/Scholar Clinical Science Award (OP--4)

**Sustained reduction in catheter-associated urinary tract infections using multi-faceted strategies led by champions: A quality improvement initiative**

Advani, Sonali D1,2; Reynolds, Staci S 1,2; Sova, Chris 1,2; Lewis, Sarah S 1,2; Turner, Nicholas A 1,2; Smith, Becky A1,2

1- Duke University School of Medicine, Department of Medicine, Division of Infectious Diseases, Durham, NC; 2-Duke University Hospital Infection Prevention, Durham, NC

**Research Area:** Quality Improvement, Infections of the Urinary Tract

KURe Scholar (OP--5)

**NLRP3-Dependent Mechanisms Responsible for Urothelial Barrier Dysfunction in Diabetic Mice**

Michael R Odom1; Francis M Hughes Jr1; Huixia Jin1; J. Todd Purves1,2

1Department of Surgery, Division of Urology, Duke University Medical Center, Durham, NC. 2Department of Pediatrics, Duke University Medical Center, Durham, NC.

**Research Areas:** diabetes, bladder inflammation, overactive bladder

KURe Scholar (OP--6)

**Effect of epidural kilohertz frequency spinal cord stimulation on lower urinary tract function in a rat spinal cord transection model**

Steadman, Casey J1; Langdale, Chris L1; Czeiszperger, Aaron S1; Grill, Warren M1,2,3,4.

Duke University, 1Biomedical Engineering, 2Electrical and Computer Engineering., 3Neurobiology, 4Neurosurgery, Durham, NC.

**RESEARCH AREA:** Therapeutic Development, Voiding dysfunction/Urinary Retention, Spinal cord injury

**ACKNOWLEDGMENTS:** This work is supported by the Duke KURe NIH K12 and the CH Neilsen Foundation.
A-01

Does procalcitonin play a role in mortality and severity of Covid 19?
Zakeri, Anahita¹; Matin, Somaieh¹; Rezaei Ghaelechi Elnaz²
¹Department of Internal Medicine, Division of Internal Medicine, Ardabil University Medical Center, Ardabil, Ardabil.
²Department of Surgery, Division of Public Surgery, Duke University Medical Center, Durham, NC.
Research Area: Clinical Outcome Research

Trainee A-02

Development of prediction models for outcomes after intradetrusor OnabotulintumToxinA for non-neurogenic urgency incontinence in women
Whitney K. Hendrickson MD¹, Gongbo Xie MS², David D. Rahn MD³, Megan Bradley MD⁴, Vivian Sung MD⁵, Jim A. Hokanson, PhD⁶, Ariana L. Smith MD⁷, Anthony Visco MD¹, Cindy Amundsen MD¹, Shen Luo PhD², J. Eric Jelovsek MD MMed MSDDS¹
¹Duke Urogynecology Durham, NC; ²Duke Biostatistics & Bioinformatic; ³UT Southwestern Female Pelvic Medicine and Reconstructive Surgery, Dallas, TX; ⁴Univ. of Pittsburgh Urogynecology and Pelvic Reconstructive Surgery; ⁵Women and Infants Hospital, Brown University, Urology, Pelvic Reconstructive Surgery, Providence, RI; ⁶Duke Biomedical Engineering; ⁷Perelman School of Medicine, Univ. of Pennsylvania, Urology, Philadelphia, PA
Research Area: Data Science/Predictive Analytics

Trainee A-03

Machine learning for urodynamic detection of detrusor overactivity
Hobbs, Kevin T¹; Choe, Nathaniel²; Aksenov, Leonid¹; Aquino, Wilkins²; Routh, Jonathan C¹; Hokanson, James A³
¹Division of Urologic Surgery, Duke University Medical Center, Durham, NC
²Pratt School of Engineering, Duke University, Durham, NC
³Department of Biomedical Engineering, Medical College of Wisconsin, Milwaukee, WI
Research Area: Pediatric Urology, Urodynamics

Trainee A-04

Cost-effectiveness analysis of universal cystoscopy at the time of benign laparoscopic hysterectomy.
Luchristt, Douglas¹; Geynisman-Tan, Julia²; Mueller, Margaret G.²; Kenton, Kimberly²
¹Division of Female Pelvic Medicine and Reconstructive Surgery, Department of Obstetrics and Gynecology, Duke University, Durham, NC
²Division of Female Pelvic Medicine and Reconstructive Surgery, Department of Obstetrics and Gynecology, Northwestern University, Chicago, IL
Research Area: Quality Improvement

Trainee A-05

Timing of diagnosis of complex lower urinary tract injury in the 30-day postoperative period following benign hysterectomy.
Luchristt, Douglas¹; Brown, Oluwateniola²; Geynisman-Tan, Julia²; Mueller Margaret G.²; Kenton, Kimberly²; Bretschneider, C Emi²
¹Division of Female Pelvic Medicine and Reconstructive Surgery, Department of Obstetrics and Gynecology, Duke University, Durham, NC
²Division of Female Pelvic Medicine and Reconstructive Surgery, Department of Obstetrics and Gynecology, Northwestern University, Chicago, IL
Research Area: Female Pelvic Medicine
Trainee A-06

Vaginal complications after bladder cystectomy: results from a Medicare sample
Richter MD, Lee A; Osazuwa- Peters, PhD, Oyomoare; Routh MD, MPH, Jonathan; and Handa MD, MHS, Victoria
1Departments of Urology and ObGyn, Division of Urogynecology, MedStar/Georgetown University Medical Center, Washington, DC. 2Department of Population Health Sciences, Duke University Medical Center, Durham, NC. 3Department of Surgery, Division of Urology, Duke University Medical Center, Durham, NC 4Department of ObGyn, Division of Urogynecology, Johns Hopkins School of Medicine, Baltimore, MD
Research Area: Clinical Outcomes Research, Female Pelvic Medicine, Health Sciences Research, Sexual Dysfunction

Trainee A-07

Automated machine learning segmentation and measurement of urinary stones on CT scan
Lembrikova, Katerina*1; Babajide, Rilwan*2; Ziemba, Justin3; Fan, Yong3; Tasian, Gregory E4
1SUNY Downstate College of Medicine, Brooklyn, NY., 2University of Chicago Pritzker School of Medicine, Chicago, IL., 3Division of Urology, Department of Surgery, Hospital of the University of Pennsylvania, University of Pennsylvania, Philadelphia, PA. 4Department of Surgery, Division of Pediatric Urology, The Children’s Hospital of Philadelphia, Philadelphia, PA.
*Contributed equally
Research Area: Data Science/ Predictive Analytics, Nephrolithiasis

Trainee A-08

Outcomes of an Algorithmic, Multidisciplinary Approach to Rectourethral Fistula Repair: A Pre- and Post-Intervention Quasi-Experimental Study
Joshua P Hayden1; Madison Krischak1; William R Boysen2; Urszula Kowalik2; Brian M Inouye2; Stephanie J Sexton2; Brian Gilmore3; John Migaly3; Christopher R Mantyh3; Julie K M Thacker3; Detlev Erdmann4; Andrew C Peterson2
1. Duke University School of Medicine, Durham, NC
2. Division of Urologic Surgery, Duke University Medical Center, Durham, NC
3. Section of Colorectal Surgery, Duke University Medical Center, Durham, NC
4. Division of Plastic, Maxillofacial and Oral Surgery, Duke University Medical Center, Durham, NC
Research area: Urinary Reconstruction, Clinical Outcomes Research, Quality Improvement

Trainee A-09

Pinching Pennies or Thousands of Dollars: Micro-cost and Benchtop Analysis of Reusable vs Single-Use Cystoscope
Kim,Christopher J*, Whelan,Patrick, Tabib,Christian1, Preminger,Glenn M1, Lipkin,Michael E1
1Duke University Medical Center, Division of Urology, Durham, NC
Research Area: Health Sciences Research, Nephrolithiasis

Trainee B-01

NLRP3 mediates underactive bladder development in Akita diabetic male mice at 15 week of age
Armand Allkanjari MD1, Francis M. Hughes PhD1; J Todd Purves MD, PhD1,2
1Division of Urology, Department of Surgery, Duke University Medical Center, Durham, NC. 2Department of Pediatrics, Duke University Medical Center, Durham, NC.
Research area: Bladder inflammation, Diabetes, Urodynamics
Trainee B-02

Voiding and muscle contractility dysfunction in a rat model of detrusor underactivity
Gonzalez, Eric J.,¹ Odom, Michael R.,² Hannan, Johanna L.,² Grill, Warren M.¹
¹Duke University, Department of Biomedical Engineering, Durham, NC
²East Carolina University, Department of Physiology, Greenville, NC
Research Area: Neurourology, Voiding Dysfunction/Urinary Retention
Funding: K01 DK120632 (EJG) and the Pratt School of Engineering (WMG).

Trainee B-03

The role of connective tissue growth factor in the development of lower urinary tract dysfunction
Scharpf Brandon R¹, Ruetten Hannah M¹, Fox Olivia R¹, Strand Douglas W², Vezina Chad M¹
¹University of Wisconsin-Madison, Molecular and Environmental Toxicology, Madison, Wisconsin,
²University of Texas Southwestern, Department of Urology, Dallas, Texas
Research Area: Voiding Dysfunction/Urinary Retention

Trainee B-04

Hyperinnervation and chronic mast cell activity in bladder pain syndrome following recurrent urinary tract infection
Hayes, Byron W¹; Choi, Hae Woong¹; Wu, Jianxuan²; Rathore, Abhay PS¹; Bao, Chunjing¹; Purves, J Todd³,⁴; Hughes Jr, Francis M³,⁴; Hannan, Johanna L⁵; Ji, Ru-Rong⁶-⁸; Abraham, Soman N¹,²,⁹,¹⁰
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Research Area: Infections of the Urinary Tract, Interstitial Cystitis/Painful Bladder Syndrome (IC/PBS), Neurourology

Trainee B-05

Bladder infection with uropathogenic E. Coli increases the excitability of afferent neurons
Nicolas Montalbetti¹, Marianela G. Dalghi¹, Sheldon I. Bastacky³, Dennis R. Clayton¹, Wily G. Ruiz¹, Gerard Apodaca¹,², Marcelo D Carattino¹,²
¹Renal-Electrolyte Division, Department of Medicine, ²Department of Cell Biology and ³Department of Pathology, University of Pittsburgh, Pittsburgh, Pennsylvania.
Research area: Infections of the Urinary Tract, Neurourology
Trainee B-06
Spatial distribution of extended-spectrum beta-lactamase-producing Escherichia coli isolated from patients with community-onset bacteriuria: results from 2014 to 2020 in an urban safety-net healthcare system
Raphael, Eva1; Inamdar, Pushkar2; Butcher, Cheyenne3; Shariff-Marco, Salma2; Glymour, M. Maria2; Chambers, Henry F.4
1Department of Family and Community Medicine, University of California, San Francisco, San Francisco, CA, USA
2Department of Epidemiology and Biostatistics, University of California, San Francisco, San Francisco, CA, USA
3Division of Infectious Diseases and Vaccinology, School of Public Health, University of California, Berkeley, Berkeley, CA, USA
4Department of Medicine, University of California, San Francisco, San Francisco, CA, USA
Research area: Infections of the Urinary Tract, Health Science Research

Trainee B-07
Prevalence of urinary tract infections in women with interstitial cystitis.
Alexandra Dubinskaya MD1, Kyle Smith-Honore BS2, Catherine Bresee MS3, Kai Dallas MD1, Kamil E. Barbour PhD4, Jayoung Kim MD5, Stephen Freedland MD1, Jennifer Anger MD1
1Division of Urology, Cedars-Sinai Medical Center, Los Angeles, CA, 2Veterans Affairs Medical Centers, Urology Section, Durham, NC, 3Department of Biostatistics and Bioinformatics Research Center, Cedars-Sinai Medical Center, Los Angeles, CA, 4National Center for Chronic Disease Prevention and Health Promotion, CDC, Atlanta, GA, 5Department of Surgery, Cedars-Sinai Medical Center, Los Angeles, CA
Research Area: Interstitial Cystitis/Painful Bladder Syndrome

Trainee B-08
Targets to improve prevalence of outpatient urology clinic urine culture mixed flora
Patrick Whelan*1, Alicia Nelson2, Christopher J Kim1, Christian Tabib1, Glenn Preminger1, Michael Lipkin1, Sonali Advani2
1: Duke University Hospital, Division of Urology, 2: Duke University Hospital, Division of Infectious Disease
Research Area: Infection, Quality Improvement

Trainee C-01
The significant contribution of cavitation to dusting stone damage in laser lithotripsy
Ho, Derek,1 Chen, Junqin,1 Xiang, Gaoming,1 Whelan, Patrick,2 Preminger, Glenn,2 Lipkin, Michael,2 Zhong, Pei,1,2
1Department of Mechanical Engineering and Materials Science, Duke University
2Division of Urology, Duke University Medical Center
Research Area: Nephrolithiasis

Trainee C-02
Calcium oxalate stones, blood ionized calcium, and hypercalciuria are associated with genes affecting arachidonic acid metabolism in a dog model
Baker, Lauren A1, Penniston, Kristina2, Furrow, Eva3
1School of Veterinary Medicine, University of Wisconsin-Madison, Madison, WI, USA, 2University of Wisconsin School of Medicine and Public Health, Madison, WI, USA, 3College of Veterinary Medicine, University of Minnesota, St. Paul, MN, USA
Research Area: Nephrolithiasis
**Trainee C-03**

**Dusting Efficiency and Scanning Speed Analysis of the Moses™ Pulse 120H 2.0 Laser System: An In vitro Assessment**

Tabib, Christian¹, Whelan, Patrick*¹, Kim, Christopher J¹, Ho, Derek², Chen, Junquin², Zhong, Pei², Preminger, Glenn¹, Lipkin, Michael¹

¹Duke University Medical Center, Division of Urology; ²Department of Mechanical Engineering and Materials Science, Duke University

**Research Area:** Nephrolithiasis

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**C-04**

**Impact of COVID-19 on the Emotional Health of Individuals Undergoing Ureteroscopy for Stone Removal: Insight from STENTS**

Antonelli, Jodi¹; Desai, Alana²; Lai, Henry²; Harper, Jonathan D³; Al-Khalidi Hussein⁴; Scales, Charles D⁴; McCune, Rebecca⁵; Piskator, Brooke¹; Kirkali, Ziya⁶; Maalouf, Naim¹ for the USDRN Investigators

¹UT Southwestern Medical Center, Dallas, TX; ²Washington University in St. Louis, St. Louis, MO; ³University of Washington, Seattle, WA; ⁴Duke University, Durham, NC; ⁵Children’s Hospital of Philadelphia, Philadelphia, PA; ⁶NIDDK, Bethesda, MD

**Research Area:** Nephrolithiasis; Health Services Research

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**C-05**

**The Patient Voice: Living with a Ureteral Stent after Ureteroscopy – A Urinary Stone Disease Research Network (USDRN) Study**

Corneli, Amy¹; Dombeck, Carrie¹; McKenna, Kevin¹; Harper, Jonathan²; Antonelli, Jodi³; Desai, Alana⁴; Lai, Henry⁴; Tasian, Gregory⁵; Ziemba, Justin⁶; McCune, Rebecca⁵; Piskator, Brooke³; Al-Khalidi, Hussein¹; Maalouf, Naim³; Reese, Peter⁶; Wessells, Hunter²; Kirkali, Ziya⁷; Scales, Charles¹*

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**Research Area:** Clinical Outcomes Research, Health Sciences Research, Nephrolithiasis, Patient Reported Outcomes

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**Trainee C-06**

**Sacral neuromodulation in rats: parameters and pathways**

James A. Hokanson¹, Christopher L. Langdale², Warren M. Grill²,³,⁴,⁵

¹Department of Biomedical Engineering, Medical College of Wisconsin, Milwaukee, WI. Departments of ²Biomedical Engineering, ³Electrical and Computer Engineering, ⁴Neurobiology, and ⁵Surgery, Duke University, Durham, NC

**Research Area:** Neurourology, Overactive Bladder (OAB)

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**Trainee C-07**

**THX-B compound decreases the activity of matrix metalloproteinase-9 and increases secretion of nerve growth factor by mouse urothelial cells in culture**

Hamouda, Aalya¹; Sirmakesyan, Stephanie¹; Cammisotto, Philippe¹; Saragovi, Uri¹; Campeau, Lysanne¹,²

¹Lady Davis Institute for Medical Research, McGill University, Montreal, Quebec, Canada. ²Urology Department, Jewish General Hospital, Montreal, Quebec, Canada

**Research Area:** Overactive Bladder (OAB), Voiding Dysfunction/Urinary Retention
Trainee C-08

UUI-IR: distinguishing a subtype of urgency urinary incontinence based on molecular profiling
Nazema, Siddiqui Y1; Kathy, Lu Z2; Cindy, Amundsen L1; Joseph, Prinz A3; Susan, Murphy K1
1Department of Obstetrics and Gynecology, Duke University Medical Center, Durham, NC. 2Duke University, Durham, NC. 3Duke Center for Genomic and Computational Biology, Durham, NC.
Research Area: Diabetes, Overactive Bladder (OAB)

Trainee D-01

White matter contribution in men with lower urinary tract symptoms attributable to chronic benign prostatic obstruction
Jang, Yongchang1, Tran, Khue1, Hubbard, Logan1, Gonzalez, Ricardo R1, Karmonik, Christof2, Khavari, Rose1
1Department of Urology, Houston Methodist Hospital, Houston, Texas. 2Translational Imaging Center, Houston Methodist Research Institute, Houston, Texas.
Research Area: Benign Prostatic Hyperplasia, Bladder Outlet Obstruction, Neurourology

Trainee D-02

Stimulation of prostatic epithelial cell proliferation by androgen-regulated paracrine signaling from primary BPH stromal cells
Wei Chen1, Laura E. Pascal1, Rajiv Dhir3, Bruce Jacobs1, Donald B. DeFranco4, Naoki Yoshimura1 and Zhou Wang1,2,4*
1Department of Urology, University of Pittsburgh School of Medicine, Pittsburgh, PA, USA
2UPMC Hillman Cancer Center, University of Pittsburgh School of Medicine, Pittsburgh, PA, USA;
3Department of Pathology, University of Pittsburgh School of Medicine, Pittsburgh, PA, USA;
4Department of Pharmacology and Chemical Biology, and University of Pittsburgh School of Medicine, Pittsburgh, PA, USA
Research Area: Benign Prostatic Hyperplasia, Health Sciences Research

Trainee D-03

Differential impact of paired patient-derived primary BPH and normal adjacent prostatic stromal cells on macrophage migration and benign prostatic epithelial cell monolayer permeability
Guangcheng Dai1,2, Wei Chen1, Laura E. Pascal1,3 and Zhou Wang1,3,4*
1Department of Urology, University of Pittsburgh School of Medicine, Pittsburgh, PA, USA
2Department of Urology, The second affiliated hospital of Soochow University, Suzhou, China
3UPMC Hillman Cancer Center, University of Pittsburgh School of Medicine, Pittsburgh, PA, USA
4Department of Pharmacology and Chemical Biology, and University of Pittsburgh School of Medicine, Pittsburgh, PA, USA
Research Area: Benign Prostatic Hyperplasia, Health Sciences Research

Trainee D-04

Identification of Collagen Producing Cell Lineages in the Inflamed Prostate
Sandhu, Jaskiran K1,2, Ruetten, Hannah1,2, Scharpf, Brandon1,2,3, Vezina, Chad M1,2,3
1Department of Comparative Biosciences, University of Wisconsin-Madison, Madison, WI; 2University of Wisconsin-Madison/UMASS Boston George M. O’Brien Center for Benign Urologic Research, Madison, WI and Boston, MA; 3Molecular and Environmental Toxicology Center, University of Wisconsin-Madison, Madison, WI
Research Area: Benign Prostatic Hyperplasia OR Voiding dysfunction/ Urinary retention
Trainee D-05

**Spatial transcriptomics approach to pinpoint cellular heterogeneity in 5-alpha reductase treatment resistance**
Binoy Joseph, Diya1, Henry, Gervaise H1, Malewska, Alicia1, Reese, Jeffrey C2, Mauck, Ryan J1, Gahan, Jeffrey 1, Hutchinson, Ryan C1, Mohler, James L3, Roehrborn, Claus G1, Strand, Douglas W1
1UT Southwestern Medical Center, Department of Urology, Dallas, TX 75390, USA
2Southwest Transplant Alliance, Dallas, TX 75231, USA
3Roswell Park Comprehensive Cancer Center, Buffalo, NY 14263, USA

**Research area:** Benign Prostatic Hyperplasia

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Trainee E-01

**Our differences make us complete: The identification of novel cell populations in penis development and their involvement in hypospadias**
Amato, Ciro M. and Yao, Humphrey H.-C.
National Institute of Environmental Health Sciences, Reproductive and Developmental Biology Lab, Research Triangle Park, NC 27709

**Research Area:** Congenital Urogenital Anomalies/Embryology

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Trainee E-02

**Resection of the pubic symphysis with cystectomy significantly improves short-term patient reported physical health measures among patients with urosymphyseal fistula and pubic bone osteomyelitis: The Duke experience**
Brian Inouye1, William R Boysen2, Arman A Kahokehr3, Brent D Nose1, Andrew C Peterson1
1Division of Urology, Duke University Medical Center, Durham NC USA;2Division of Urology, Brigham and Women’s Hospital, Boston MA USA;3University of Adelaide, South Australia AUS.

**Research Area:** Infectious of the Urinary Tract, Urinary Reconstruction

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Trainee E-03

**Redo buccal harvest for urethroplasty after graft site closure is safe and does not affect long-term oral health**
Brian M Inouye1, Brent D Nosé1, William R Boysen1, Andrew C Peterson1
1 Duke University Division of Urology, Durham, NC

**RESEARCH AREA:** Urinary reconstruction

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Trainee E-04

**Emergency department visits for genital foreign bodies: not unique to men**
A Dubinskaya, MD; KBH Dallas, MD; VS Scott, MD; KS Eilber, MD, JT Anger, MD
Cedar-Sinai Medical Center, Department of Surgery, Division of Urology, Female Pelvic Medicine and Reconstructive Surgery, Los Angeles, CA

**Research area:** Sexual Dysfunction

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Trainee E-05

**Infection risk following implant revision, does component exchange matter?**
Scott P Campbell*1, Christopher J Kim1, Armand Allkanjari1, Aaron Lentz1
1Duke University Medical Center, Division of Urology

**RESEARCH AREA:** clinical outcomes, sexual dysfunction
Trainee E-06

Women’s experience of their first sexual encounter after urinary incontinence and/or pelvic organ prolapse surgery: a qualitative study
Caldwell, Lauren1; Halder, Gabriela E1; Dunivan, Genav2; White, Amanda B1; Ossai, Uchenna1; Rogers, Rebecca G3
1Department of Women’s Health, University of Texas at Austin Dell Medical School, Austin, TX.
2Department of Obstetrics and Gynecology, University of New Mexico, Albuquerque, NM.
3Department of Obstetrics and Gynecology, Albany Medical Center, Albany, NY.

Research Area: Sexual Dysfunction, Female Pelvic Medicine

Trainee E-07

Illustrations to assess prolapse and urinary incontinence in Kisumu, Kenya
O’Shea, Michele S1; Omoto, Jackton2; Gwer, Stephen2; Huchko, Megan J3
1Division of Female Pelvic Medicine and Reconstructive Surgery, Duke University, Durham, NC; 2Department of Obstetrics and Gynecology, Maseno University School of Medicine, Kisumu, Kenya; 3Department of Obstetrics and Gynecology, Duke University, Durham, NC

Research Area: Female Pelvic Medicine, Other (Global Health)

Trainee E-08

Exosome-Induced Vaginal Tissue Regeneration in a Porcine Mesh Exposure Model
Kisby, Cassandra K., MD, MS1; Shadrin, Ilya Y., MD, PhD2; Rolland, Tyler J.3; Stalboerger, Paul G., MS, PMP3; Trabuco, Emanuel C., MD, MS1; Behfar, Atta MD, PhD3,4; Occhino, John A., MD1
1Mayo Clinic Division of Urogynecology; Rochester, MN; 2Mayo Clinic Department of Internal Medicine; Rochester, MN; 3Mayo Clinic Center for Regenerative Medicine; Rochester, MN; 4Mayo Clinic Department of Cardiovascular Diseases; Rochester, MN

Research areas: Regenerative Medicine, Female Pelvic Medicine

Trainee F-01

Mapping urethral responses during pudendal neurostimulator implant surgery with a multsensor catheter
Chen, Po-Ju1,2, Lagunas, Amador C1,2, Gupta, Priyanka3, Bruns, Tim M1,2.
1Department of Biomedical Engineering, University of Michigan, Ann Arbor, MI. 2Biointerfaces Institute, University of Michigan, Ann Arbor, MI. 3Department of Urology, University of Michigan, Ann Arbor, MI.

Research Area: Neurourology

Trainee F-02

Investigating the effect of tibial and pudendal nerve stimulation on external vaginal blood flow in anesthetized rodents
Bottorff, Elizabeth C1,2; Bruns, Tim M1,2
1Department of Biomedical Engineering, University of Michigan, Ann Arbor, MI. 2Biointerfaces Institute, University of Michigan, Ann Arbor, MI.

Research Area: Sexual Dysfunction, Female Pelvic Medicine

Trainee F-03

Behavioral close-loop neuromodulation of bladder function in a feline model
Ortiz-Lopez, Miguel A1,2; Ouyang, Zhonghua1,2; Willen, Maeve1,2; Kennedy, Eric1,2; Bruns, Tim M1,2
1Biomedical Engineering Department, University of Michigan, Ann Arbor, MI, USA. 2Biointerfaces Institute, University of Michigan, Ann Arbor, MI, USA.

Research area: Neurourology, Overactive Bladder (OAB)
Trainee F-04

Quantifying anal sphincter recruitment with clinical pudendal nerve stimulation
Lagunas, Amador C¹,²; Chen, Po-Ju¹,²; Gupta, Priyanka³; Bruns, Tim M¹,²
¹Department of Biomedical Engineering, Ann Arbor, MI. ²Biointerfaces Institute, Ann Arbor, MI.
³Department of Urology, Michigan Medicine, Ann Arbor, MI.
Research Area: Neurourology

Trainee F-05

Preliminary results of novel, noninvasive, individualized cortical modulation using Transcranial Rotating Permanent Magnet Stimulator in improving voiding dysfunction in multiple sclerosis women
Khue Tran¹, Zhaoyue Shi², Christof Karmonik², Timothy Boone¹, Santosh Helekar³, Rose Khavari¹
¹. Department of Urology, Houston Methodist Hospital, Houston TX
². Translational Imaging Center, Houston Methodist Research Institute, Houston TX
³. Department of Neurosurgery, Houston Methodist Hospital, Houston TX
Research Area: Neurourology, Voiding Dysfunction/Urinary Retention

Trainee F-06

Predictors for clinical outcomes of noninvasive, individualized neuromodulation with transcranial rotating permanent magnet stimulator in female multiple sclerosis patients with neurogenic voiding dysfunction
Jang, Yongchang¹, Tran, Khue¹, Khavari, Rose¹
¹Department of Urology, Houston Methodist Hospital, Houston, Texas
Research Area: Voiding dysfunction/Urinary Retention, Neurourology

Trainee F-07

Correlation between white matter integrity and lower urinary tract symptoms in female multiple sclerosis patients: 7-Tesla fMRI evaluation
Choksi, Darshil¹; Tran, Khue²; Schott, Bradley¹; Karmonik, Christof²; Khavari, Rose²
¹. ENMED Program, Texas A&M College of Medicine, Houston, TX
². Department of Urology, Houston Methodist Hospital, Houston TX
Research area: Neurourology, Voiding Dysfunction/Urinary Retention
Jennifer Anger, MD, MPH
Associate Professor of Surgery-Urology
Associate Director of Urological Research
Urologic Reconstruction, Urodynamics, and Female Urology
Cedars-Sinai Medical Center
Adjunct Assistant Professor of Urology
Surgery, Division of Urology, UCLA

Dr. Anger is a fellowship-trained reconstructive urologist with extensive experience treating pelvic floor disorders in men and women. She completed her Master’s degree in Public Health at UCLA under the mentorship of Dr. Mark Litwin, a pioneer in urological health services research. She has over ten years of research experience using administrative claims, including data from the VA. In 2007, she received a mentored career development award (K23) from the NIDDK. Dr. Anger's research has focused on the quality of care for women with urinary incontinence and pelvic prolapse, including the safety and efficiency of robotic-assisted surgery. The research team at Cedars-Sinai is a site for the NIH-funded Multidisciplinary Approach to the Study of Chronic Pelvic Pain (MAPP) Network. Urologic chronic pelvic pain syndromes (UCPPS) are debilitating conditions and a lack of objective clinical diagnostic criteria has severely affected our ability to adequately identify and treat UCPPS. The goal of this MAPP discovery site is to use genomics and proteomics approaches to develop sensitive and non-invasive diagnostic biomarkers that will allow objective phenotyping of UCPPS patients. Dr. Anger's team employs state-of-the-art resources in microbiome genomic sequencing and characterization to define the microbiome/mycobiome of UCPPS patients. The resultant protein patterns in the urine and blood create a signature diagnostic of UCPPS. Dr. Anger serves on the KURe Advisory Board.

Mary Barbe, PhD, FAA
Professor of Anatomy and Cell Biology
Director of MicroCT Core and Imaging Center
Temple University School of Medicine

Dr. Barbe is a classically trained Anatomist with expertise in Neurobiology/Neuroscience and Musculoskeletal Biology with international recognition. One key focus of her lab since 2000 is studying the effects of repetition and force on tissues as a consequence of an upper extremity overuse injuries, using a unique operant rat model developed in her laboratory. Using this model, she has examined the effects of varying levels of repetitive and forceful work tasks on musculoskeletal and nervous system pathophysiology, focusing on injury and inflammation initially, and how these processes induced tissue degeneration and sensorimotor dysfunction. She is currently exploring inducers of tissue fibrosis and degeneration occurring with overuse. She has 35 years of experience examining various aspects of peripheral and central neuroplasticity, ranging from changes occurring in the bladder (i.e., peripheral), spinal cord and brain after injury or gene knockout. She utilized the latter experience to inform the rat overuse model, as well as involvement for nearly 14 years in examining methods of reinnervation of the bladder and related tissues after decentralization of the bladder after spinal root injury. Dr. Barbe has published 196 peer-reviewed publications and has an H index of 46. She has has a long history of participating in as well as being the PI of a number of projects focused on examining serum and synovial fluid biomarkers that correlate with clinical signs and symptoms in human patients with overuse injury. Dr. Barbe serves on the KURe Advisory Board.
Matthew Barber, MD  
Edwin Crowell Hamblen Distinguished Professor of Reproductive Biology and Family Planning  
Chair of Obstetrics and Gynecology  
Duke University

Dr. Matthew Barber is E.C. Hamblen Distinguished Professor and Chair of the Department of Obstetrics and Gynecology at Duke University Medical Center. Dr. Barber earned his medical degree from Jefferson Medical College of Thomas Jefferson University and a master's degree in Health Science in Clinical Research from Duke University School of Medicine. He completed residency training in Obstetrics and Gynecology and a fellowship in urogynecology and pelvic reconstructive surgery at Duke University. His clinical practice focuses on the full spectrum of diagnosis, prevention and medical, behavioral, and surgical treatments for women with pelvic floor disorders (PFDs). Dr. Barber’s research focus is the conduct of randomized clinical trials for the treatment of gynecologic conditions, particularly surgical trials for PFDs. He and his collaborators have conducted over 30 randomized clinical trials including landmark trials in the treatment of urinary incontinence and pelvic organ prolapse and use of robotic and laparoscopic surgery for treatment of gynecologic disease. From 2006-2016, he served as PI of the Cleveland Clinic Site of the National Institute of Child Health and Human Development (NICHD) Pelvic Floor Disorders Network. He is an internationally recognized expert in developing, validating, and assessing research outcomes in PFDs, particularly health-related quality of life and patient reported-outcomes. He has won multiple awards for his research including 2001, 2007, 2011, 2013, 2015 Prize Clinical Science Paper from American Urogynecologic Society (AUGS). Dr. Barber served on the Board of Directors of AUGS from 2008-2013 and as its President from 2011-2012. As President of the AUGS, he led the multi-stakeholder team that developed and implemented the Pelvic Floor Disorders Registry (PFDR), a national registry evaluating comparative effectiveness and safety of treatment of pelvic organ prolapse. In 2011, he received recognition as American College of Obstetricians and Gynecologists (ACOG) District V Mentor of the Year. He is currently a member of the Female Pelvic Medicine and Reconstructive Surgery Division of the American Board of Obstetrics and Gynecology and is the Associate Editor of the journal Female Pelvic Medicine and Reconstructive Surgery. Dr. Barber serves on the KURe Advisory Board.

Tim Bruns, PhD  
Associate Professor of Biomedical Engineering  
University of Michigan

Dr. Tim M. Bruns is an Associate Professor and the Associate Chair for Graduate Education in the Biomedical Engineering Department at the University of Michigan. His research group, the Peripheral Neural Engineering and Urodynamics Lab, is part of the University of Michigan Biointerfaces Institute. His lab performs preclinical and clinical studies to examine systems-level neurophysiology and restore pelvic organ function, with a focus on neuromodulation for bladder control and female sexual function. His research has been supported by funding from the NIH, including the NIH SPARC program, an NSF CAREER award, the Craig H. Neilsen foundation, and industry. He has trained four postdoctoral fellows, eight PhD and twelve MS graduate students, and more than thirty-five undergraduates in his lab.
Arthur L. Burnett, MD, MBA, FACS  
Patrick C. Walsh Distinguished Professor of Urology  
Department of Urology, Johns Hopkins University School of Medicine  
The James Buchanan Brady Urological Institute

Dr. Arthur (Bud) Burnett received his A.B. degree in Biology from Princeton University and M.D. and M.B.A. degrees from Johns Hopkins University. He performed post-graduate training in general surgery, urology, and reconstructive urology and urodynamics at the Johns Hopkins Hospital. At present, he holds the position of Patrick C. Walsh Distinguished Professor of Urology. Dr. Burnett has served in multiple professional capacities with medical organizations and advisory committees. He has made academic contributions consistent with his biomedical research and clinical activities in sexual medicine, major pelvic reconstruction, and genito-urinary oncology. He has written more than 300 original peer-review articles, 70 editorial comments, 50 book chapters, and 2 books.

Wade Bushman MD, PhD  
Professor of Urology  
University of Wisconsin

Dr. Bushman is a clinician-scientist with a long-standing interest in BPH. He has performed basic laboratory research focused on prostate growth regulation, prostatic inflammation and hyperplasia using the developing and adult mouse prostate as models. In more recent work, he has focused on inflammation-induced effects on voiding behavior and prostatic fibrosis in mice with correlative studies in humans and pioneered the identification of urinary biomarkers of inflammation and fibrosis in BPH/LUTS. Currently, the primary focus of his own funded research is on pathogenetic mechanisms responsible for benign prostatic hyperplasia (BPH) and lower urinary tract symptoms (LUTS) in aging men with a specific focus on the role of impaired detrusor contractility. He is co-PI of the Wisconsin Multidisciplinary K12 Urologic Research Center Development Program. He is working on developing methods for MR imaging in studying anatomy, function and dysfunction in the lower urinary tract.

Anita H. Clayton, MD, DLFAPA, IF  
David C. Wilson Professor and Chair of Psychiatry & Neurobehavioral Sciences  
Professor of Clinical Obstetrics & Gynecology  
University of Virginia.

Dr. Clayton is an international leader in Female Sexual Dysfunction (FSD). She has focused her clinical practice and research on: major depressive disorder, mood disorders associated with reproductive-life events in women, sexual dysfunction, and sexual disorders. Dr. Clayton has published over 200 peer-reviewed papers, and was named to the 2019-2020 Best Doctors in America list. She has served on the board of directors for the American Society for Clinical Psychopharmacology, and as Program Committee Co-Chair, and as a member of numerous Advisory Boards for the pharmaceutical industry (treatment of depression and sexual dysfunctions). She occasionally writes a blog for the Huffington Post.
Judith C. Holder, PhD, MS, PCC, BCC
Adjunct Associate Professor, Duke University School of Medicine
KURe Leadership and Career-Related Coach
Founder and Executive Director, Unique Pathways Coaching and Consulting Services, PLLC.
Associate Director and Advisor, Duke Master of Biomedical Sciences Program

Dr. Judith Holder is a licensed psychologist, executive and leadership coach and behavioral health consultant who partners with physician leaders, emerging leaders, administrators and professionals in the healthcare sector, and leaders in businesses and corporations who have a desire to move from ‘good to great’ in their sphere of influence. Dr. Holder brings a rich background over her 36-years career as a behavioral health strategist in her coaching and consultation engagements. She has expertise in personal-professional change management, leadership development, performance enhancement, personality styles, communicative knowhow, emotional intelligence competencies, team growth, and in the competing stressors confronting medical and corporate cultures and workforces. Dr. Holder uses her clinical and coaching skills to collaborate and consult with leaders and managers in the people skills needed to lead effectively and in the psychosocial factors impacting employee sub-optimal performance and well-being. Further, since 2013 Dr. Holder has provided coaching services for K-12 recipients (Duke junior faculty and postdoctoral fellows). Judith received her doctorate in Counseling Psychology with an emphasis in stress management from Southern Illinois University-Carbondale, and a Master of Science degree in Systems Dynamics (Marriage and Family Therapy and Community Development-Prevention) from the University of Maryland-College Park. As a former American Psychological Association (APA) and National Institute of Occupational Safety and Health (NIOSH) fellow, Dr. Holder is one of the few psychologists clinically trained as an Occupational Health Psychologist in the United States. She is a former director of several programs at Duke University Medical Center and full-time faculty for twenty-four years prior to becoming the founder and executive director of Unique Pathways Coaching and Consulting Services, PLLC in Durham NC. Along with being a coach-psychologist, Dr. Holder is a certified team coach, a Professional Certified Coach (PCC), a Board-Certified Coach (BCC) and a member of the International Coaching Federation (ICF).
Janet Keast, PhD  
Professor and Chair of Anatomy & Neuroscience  
University of Melbourne, Australia

Dr Keast’s scientific training began with award of a Bachelor of Science degree with first class Honours at the University of Adelaide, followed by research in the enteric nervous system and a PhD from Flinders University, mentored by Dr John Furness. After postdoctoral training with Dr William (“Chet”) de Groat at the University of Pittsburgh, she held a tenured academic teaching and research position at the University of Queensland, followed by a National Health and Medical Research Council Senior Research Fellowship and recruitment to Sydney, where she was appointed Director of Basic Research at the Pain Management Research Institute, led by Dr Michael Cousins at the Royal North Shore Hospital. In February 2012 Dr Keast was recruited to the Chair of Anatomy and Neuroscience at the University of Melbourne and during 2013-2017 held the additional role of Head of Department.

Dr Keast is recognised internationally in the area of autonomic neuroscience, especially the neural regulation of urogenital organs and the impact of injury on these nerves. Her intersecting interest in the neurobiology of pain has focused on pelvic visceral pain and spinal cord injury pain, specifically investigating the plasticity of sensory and spinal neurons. A long-standing interest in sexual dimorphism and actions of sex hormones in the nervous system has underpinned many of her studies on sensory and autonomic neurons.

In 2018 Dr Keast received the Nina Kondelos Award from the Australian Neuroscience Society; this is an annual award to a female neuroscientist for outstanding contribution to basic or clinical neuroscience report, made possible by a donation to the Society by Professor George Paxinos and named after his late sister. She currently leads a team supported by the NIH SPARC (Stimulating Peripheral Activity to Relieve Conditions) Program, to map the neural circuitry of the lower urinary tract in order to develop new neuromodulatory therapies. She has also previously been a member of the NIDDK GUDMAP consortium.

Rose Khavari, MD  
Associate Professor of Urology, Institute for Academic Medicine  
Director of Research, Center for Restorative Pelvic Medicine  
Director of Neuourology and Transitional Urology Clinic  
Houston Methodist Hospital  
Weill Cornell Medical College

Dr. Khavari earned her medical doctorate degree with highest honors from the University of Texas Medical Branch in Galveston, Texas, while serving as the president for Alpha Omega Alpha medical honor society. She completed her residency in Urology at Baylor College of Medicine, followed by a fellowship in male and female continence, pelvic floor reconstructive surgery, Urogynecology and neuourology. Dr. Khavari specializes in male and female incontinence, robotic and laparoscopic surgery, pelvic organ prolapse, and neurogenic urology. In October 2015, Dr. Khavari, a K23 scholar (NIDDK), was selected for funding for her proposed work in neuourology and as a clinician scientist by Houston Methodist Hospital. She has also been chosen for the 2016 American Urological Association/European Association of Urology Academic Exchange Program where she traveled to various urology institutions in Europe to present scientific lectures on her clinical work and her research. With her comprehensive and advanced clinical training, as well as interest in research and teaching, Dr. Khavari is a leader in neuourology and pelvic reconstructive surgery. She also serves as the program director for Urology Residency at Houston Methodist Hospital.
Karl J. Kreder, Jr., MD, MBA  
Professor  
Rubin H. Flocks Chair in Urology  
Department Executive Officer  
University of Iowa

Dr. Kreder's clinical research focuses on two main areas of interest: overactive bladder/female incontinence, and interstitial cystitis. Within these fields of study, Dr. Kreder acts as principal or co-principal investigator on a number of clinical trials, including conventional medications and surgical treatments, as well as complementary and alternative therapies. His work in the area of overactive bladder and female urinary incontinence encompasses the entire spectrum of treatments, including behavior and diet modifications and pelvic floor exercises, medications, or one of numerous reconstructive surgical procedures. Dr. Kreder's emphasis of study in interstitial cystitis begins with collaborations in the basic science research labs to help determine the etiology of this disease. His clinical work addresses both the reduction of symptoms through conventional therapies and alternative options, as well as the psychosocial impact of this condition on the patient. Dr. Kreder serves on the KURE Advisory Board.

Maragatha (Maggie) Kuchibhatla, PhD  
Professor Biostatistics and Bioinformatics, Psychiatry and Behavioral Sciences  
Duke University School of Medicine

Dr. Kuchibhatla received her PhD from Texas A&M University. She is a Senior Fellow in the Center for the Study of Aging and Human Development, and a Third Year Mentor in the Clinical Research Study Program (CRSP). She is an expert in statistical research methodology, analysis of repeated measurements, latent growth curve models, latent class growth models, classification/regression trees, propensity score analyses and designing of clinical trials -- both treatment and non-treatment trials in various comorbid populations. Dr. Kuchibhatla serves on the KURE Advisory Board.
Lesley Marson, PhD  
VP of Preclinical Research  
Dignify Therapeutics  
Durham NC

Dr. Marson is currently Vice President of Preclinical Research at Dignify Therapeutics and Adjunct Professor in the Eshelman School of Pharmacy at UNC Chapel Hill. Dr. Marson directed a successful NIH-funded preclinical research program for over 30 years, served as Study Coordinator for several clinical trials and Chaired the IACUC as Research Professor in the Urology Division in the School of Medicine at UNC Chapel Hill. Her research has focused on the neurological control of pelvic function, including sexual and bladder function in males and females, leading to 20 publications identifying the peripheral-spinal cord-brain circuits that control the genital organs, bladder, and skeletal muscles. Dr. Marson conducts preclinical studies supporting drug discovery and development for ejaculatory function, sexual behavior, urination, defecation, pain, anxiety and depression, in male and female rodents. Before moving to Dignify Therapeutics, she was Director of Sexual Health Research at Urogenix Inc conducting drug discovery of potential targets modulating ejaculatory function and voiding. Dr. Marson has mentored urology residents, medical students, post-docs and bachelor students, and has over 80 peer reviewed publications. She serves on various editorial boards including J. of Sexual Medicine, Current Sexual Health Reports and Spinal Cord Series and Cases and has served on multiple NIH and DOD study sections. Dr. Marson’s current focus area is drug formulation and development to restore voluntary control of excretory function to those with spinal cord injury, MS, diabetes and the elderly.

Glenn M. Preminger, MD
James F. Glenn, M.D. Distinguished Professor of Urology  
Chief, Division of Urology  
Director, Endourology, Metabolic Stone Disease, Laparoscopic and Robotic Surgery Fellowship  
Professor of Surgery, Duke University

Dr. Preminger is Director of the Endourology, Metabolic Stone Disease, Laparoscopic and Robotic Surgery Fellowship at Duke University School of Medicine. He is a nationally and internationally recognized leader in the minimally invasive management of urinary tract stones including shock wave lithotripsy, percutaneous and ureteroscopic stone removal, as well as the comprehensive metabolic evaluation and preventative medical treatment of nephrolithiasis. He has had extensive experience in the development of endoscopic instrumentation for minimally invasive urologic procedures and holds eight patents in shock wave lithotripsy design. He along with his collaborator established The Lithotripsy Laboratory within the Comprehensive Kidney Stone Center to study shock wave physics and tissue effects within the realms of shock wave lithotripsy and intracorporeal lithotripsy devices. He has held numerous national and international committee chair positions, including American Urological Association Office of Education and holds an editorial position with Urology and Journal of Endourology. Dr. Preminger serves on the KURE Advisory Board.
Michael R. Ruggieri, Sr., PhD
Professor, Anatomy and Cell Biology
Lewis Katz School of Medicine
Temple University

Dr. Ruggieri has been working on clinically translatable basic science investigations, primarily mechanisms of neural control of visceral smooth muscle. The general approach has been to use animal models of clinically relevant human disorders to identify potential etiologic and pathogenic mechanisms and then verify these mechanisms in human tissue specimens to develop targets for therapeutic interventions. For example, his was one of the first groups to demonstrate that human urinary bladder muscle strips from patients with certain pathologic conditions show purinergic nerve mediated contractions. His laboratory is using neural recording and stimulation techniques to monitor the return of urinary bladder emptying function in a canine model. Dr. Ruggieri’s approach is to reinnervate these organs with nerve transfer closer to the end organ with somatic nerve transfer. These studies are intended to provide the final proof of concept before detailed, well controlled clinical trials in human subjects can begin. His lab is investigating specific therapeutic targets for treatment of aging bladder dysfunction.

Maryrose Sullivan, PhD
Research Health Scientist, VA Boston Healthcare System
Assistant Professor of Surgery, Brigham and Women’s Hospital
Harvard Medical School

Dr. Sullivan’s scientific interests have focused primarily on benign disorders of the bladder, including those related to outlet obstruction, diabetes, spinal cord injury and Parkinson’s disease. Her research is aimed at uncovering mechanisms responsible for bladder function/dysfunction and urinary incontinence, with the ultimate goal of identifying targetable pathways for intervention and alleviating lower urinary tract symptoms. As a research scientist and biomedical engineer, her research projects exploit a number of multidisciplinary approaches to interrogate these pathways at the cellular, tissue and whole animal levels and include imaging, in vitro, ex vivo and in vivo techniques. With funding by the Department of Veterans Affairs and NIDDK, she has published numerous original articles, chapters and reviews on topics related to urinary incontinence, bladder contractility, bladder outlet obstruction, neurogenic and non-neurogenic detrusor overactivity, and diabetic bladder dysfunction. She has been fortunate to be involved in mentoring and supervising many urology residents, post-docs, medical students and junior faculty. She is also an active member of the AUA, SUFU, SPR and ICS, and serves on the editorial board of several urology focused journals. Dr. Sullivan serves on the KURe Advisory Board.
Philip J. Walther, MD, PhD, MBA, FACS
Professor of Surgery/Urology
Associate Professor of Experimental Pathology
Duke University

Dr. Walther received his MD-PhD as a Duke MSTP trainee; his urologic residency at UCLA; an American Cancer Society junior faculty fellowship at Duke; and subsequently an MBA from Duke’s Fuqua School of Business (health care management). His lab research interests have been: 1) Developmental GU onco-therapeutics using human xenograft-supported GU tumors (primarily bladder) 2) the genomic elucidation of the role of oncogenic HPV genotypes with lower GU cancers (bladder, penis, and urethra). He served as Chair, GU Surgery Subcommittee of the NIH-funded cooperative study group-CALGB. He was the Site PI at Duke for the first NIH-sponsored multi-institutional study of immune-therapeutics of renal cancer using high-dose interleukin-2, and served as PI of a R21-funded grant to initiate an institutional research program in Prostate Cancer (seeding startup seed research grants). He also was PI of a VA-based epidemiologic effort (with Community Medicine) in the study of relevant black vs. white genomic differences associated with Prostate Cancer occurrence. Finally, he served on the Study Committee of a 7 year, 35000+ man NIH-sponsored nutritional intervention Prostate Cancer prevention study (Vitamin E vs. Selenium -SELECT). Dr. Walther serves on the KURe Advisory Board.

R. Clinton Webb, PhD
Director, Cardiovascular Research Center
Professor, Department of Cell Biology and Anatomy
University of South Carolina

Dr. Webb graduated from the Southern Illinois University, in 1971, and received his Ph.D. in Anatomy from the University of Iowa in 1976. He was the Herbert S. Kupperman Chair in Cardiovascular Disease and Chair of the Department of Physiology at the Medical College of Georgia, Augusta University. In March 2020, he accepted a professorship in the Department of Cell Biology and Anatomy at the University of South Carolina School of Medicine. He also directs the Cardiovascular Translational Research Center. His research interests focus on the physiology of smooth muscle with particular emphasis on hypertension, bladder physiology and sexual dysfunction. He has published over 360 peer-reviewed papers and 130 book chapters and reviews and is currently funded by a National Institutes of Health (NIH) Program Project Grant. Mentoring is one of the strongest attributes of Dr. Webb. For nearly four decades, he has promoted the careers of many students and post-doctoral fellows. Forty-nine postdoctoral fellows have trained in his laboratory and he has served as the thesis supervisor for twenty-three graduate students. He has served on seventy-four dissertation committees and over 100 undergraduate students have trained in his laboratory. Nineteen faculty from universities around the world have spent their sabbatical leave in Dr. Webb’s laboratory.