The Environmental Impact on Urologic Health and Disease

April 4-5, 2016
University of Wisconsin Fluno Center

Visiting Speakers
Shuk-Mei Ho, PhD, University of Cincinnati
Barry Timms, PhD, University of South Dakota
Rick Woychik, PhD, National Institute of Environmental Health Sciences (NIEHS)

University of Wisconsin Speakers
Dale Bjorling, DVM, School of Veterinary Medicine
Chris Bradfield, PhD, Department of Oncology
Allison Brodbeck, BA, Department of Medicine
Reginald Bruskewitz, MD, Department of Urology
Justine Coburn, BS, Department of Oncology
John Denu, PhD, Wisconsin Institutes for Discovery
Diya Binoy Joseph, BS, School of Veterinary Medicine
Stephanie Lemancik, Department of Urology
Lingjun Li, PhD, School of Pharmacy
Teresa Liu, PhD, Department of Urology
Megan Livingston, BA, Department of Chemistry
Will Ricke, PhD, Department of Urology
Linda Schuler, PhD, VMD, School of Veterinary Medicine
Weiping Tang, PhD, School of Pharmacy
Jordan Vellky, BS, Department of Cancer Biology
Chad Vezina, PhD, School of Veterinary Medicine
Kyle Wegner, BS, School of Veterinary Medicine
Jalissa Wynder, BS, METC
Wei Xu, PhD, Department of Oncology

About the O’Brien Center
The George M. O’Brien Center for Benign Urology Research is funded by a U54 cooperative agreement administered by the National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health (US4DK104310). The Center is led by William Ricke, PhD, of the Department of Urology, and Dale Bjorling, DVM, of the School of Veterinary Medicine. The center is only one of three in the nation to focus on benign urologic disease research, including conditions such as lower urinary tract dysfunction and benign prostatic hyperplasia. Dr. Jill Macoska of the University of Massachusetts Boston is a Project Leader in the Center, and the Center is funded by the NIH NIDDK.
Monday, April 4

AM

7:30  Breakfast

8:00  Welcome & Overview — Dean Robert Golden, MD, University of Wisconsin School of Medicine and Public Health

I. BPH and Fibrosis
Chair: Jill Macoska, PhD

8:10  Overview of BPH/LUTS: A Role for Compliance and Fibrosis — Reginald Bruskewitz, MD

8:50  Toxicological Insights for Future Research — Rick Woychik, PhD

9:50  Break

II. BPA & LUTD
Chairs: Rob Lipinski, PhD, and Clara Jeong, PhD

10:20  The Role of Bisphenol-A in LUT Development and LUTD — Barry Timms, PhD

11:20  Estrogen Induction of LUTD in Mice — Will Ricke, PhD

11:50  The Role of Bisphenol A in LUTD — Jalissa Wynder, BS

PM

12:05  BPA Exposure and Associated Gene Expression Changes in Prostate Cancer — Jordan Vellky, BS

12:30  Lunch

III. AHR Pathways in Disease
Chairs: Dick Peterson, PhD, and Brian Johnson, PhD

1:30  IUL TCDD Exacerbates LUTD in Mice — Chad Vezina, PhD

2:20  The Next Generation of SAhRM as Potential Therapeutics — Weiping Tang, PhD

2:40  ER and AhR Crosstalk in Breast Cancer — Justine Coburn, BS

2:55  Break

IV. Developing Technology to Investigate LUT Disease
Chairs: Paul Marker, PhD, and Dalton McLean, BS

3:15  Developing Mass Spectometry-based Omics Strategies for Candidate Biomarker Discovery in LUTS — Lingjun Li, PhD

3:35  Ultrasound Imaging of the Mouse Renal System — Allison Brodbeck, BA

3:55  Assessing Collagen in the Mouse Urethra — Stephanie Lemancik
V. Resources

4:10 Background and Collaborations — Dale Bjorling, DVM
4:30 Overview of the Molecular & Environmental Toxicology Center — Chris Bradfield, PhD
4:45 Picrosirius Red: A Versatile Tool for Analyzing Collagen in the Lower Urinary Tract — Kyle Wegner, BS

5:00 Poster Session
6:30 Adjourn

Tuesday, April 5

AM
7:30 Breakfast

VI. Epigenetics and Post Translational Modifications in Disease Progression
Chairs: Dale Bjorling, DVM, and Molly Morgan, BS
8:00 BPA Effects on Methylation in Reproductive Tissues — Shuk-Mei Ho, PhD
8:55 Histone-typing as an Epigenetic Tool in Diagnosis and Treatment — John Denu, PhD
9:30 Investigating the Role of DNA Methylation in Prostate Development and Disease — Diya Binoy Joseph, BS

9:50 Break

VII. Estrogen Signaling in Hormone Responsive Tissues
Chairs: Tony Goldbeg, DVM, and Mark Cadena, BS
10:10 Desmoplasia: Hijacking Hormones in Breast Cancer — Linda Schuler, PhD, VMD
10:45 Direct Estrogen Receptor Dimerization Using Chemical Probes — Wei Xu, PhD
11:20 Utilizing Microscale Tools to Identify Key Factors in the Prostate Microenvironment — Megan Livingston, BA
11:35 SERMs and BPH — Teresa Liu, PhD
11:50 Closing Remarks

PM
12:00 Adjourn