

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)

SPEAKERS

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 (U54DK104310). 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.



**George M. O'Brien
Urology Research Center**
UNIVERSITY OF WISCONSIN-MADISON



**Molecular & Environmental
Toxicology Center**
UNIVERSITY OF WISCONSIN
SCHOOL OF MEDICINE AND PUBLIC HEALTH



**National Institute of
Diabetes and Digestive
and Kidney Diseases**

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 Spectrometry-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



AGENDA

All lectures will be held in the Howard Auditorium on the first floor of the Fluno Center. Breaks will be held just outside the Howard Auditorium. The poster session will be held on the eight floor in the Skyview Room.

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
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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