

4th Clinical and Scientific Advances in Urinary Tract Infections

July 19-29, 2022
Meet us in Gather.town



Images of the two plates of swarming *Proteus mirabilis* were kindly provided by Dr. Melanie Pearson, University of Michigan.

Conference at a glance

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
17	18	19	20	21	22	23
		Pathogenesis and Severity	Discussion-UTI Management	TX/ABX Res Prevention		Panel Discussion
		Dr. Barthold				
	Posters-Open					
	Recordings					
24	25	26	27	28	29	30
	Susceptibility	Poster Session	Emerging and Understudied		Discussion-Pathogenesis	
					Poster Session	
	Posters-Open					
	Recordings					

Session 1: Tuesday July 19, 2022
Location: East and West Keynote Rooms

9:00 – 9:10 am **Welcome, Opening Remarks and Announcements**
Mark Schembri, Professor, The University of Queensland

KEYNOTE

9:10 – 9:40 am **UNDERSTANDING IMMUNITY TO UTI**
Molly Ingersoll, PhD, Institut Cochin & Institut Pasteur

UTI PATHOGENESIS AND SEVERITY

9:40 – 10:10 am **SUBVERSION OF MITOCHONDRIAL METABOLISM SUPPORTS
INTRACELLULAR BACTERIAL PATHOGENESIS DURING UTI**
Maria Hadjifrangiskou, PhD, Vanderbilt University

10:10 – 10:20 am **CELL-SPECIFIC INSULIN RECEPTOR DELETION DISRUPTS UROTHELIAL
BARRIER INTEGRITY INCREASING UTI SUSCEPTIBILITY**
Kristin Bender, The Abigail Wexner Research Institute at Nationwide Children's

10:20 – 10:40 am **BREAK**

10:40 – 11:00 am **NERVE-DRIVEN IMMUNITY DURING KIDNEY INFECTION**
Keira Melican, PhD, Karolinska Institutet

11:00 – 11:30 am **MOVIN' ON UP: BLADDER TO KIDNEY TO BLOODSTREAM**
Harry Mobley, PhD, University of Michigan

11:30 – 11:40 am **TRANSCRIPTOME PROFILING OF UROPATHOGENIC *ESCHERICHIA COLI*
IN RESPONSE TO INFECTION-RELEVANT STRESS**
Minh-Duy Phan, PhD, University of Queensland

11:40 – 11:50 am **CATHETERIZATION-INDUCED FIBRIN ACCUMULATION PROMOTES M2
MACROPHAGE POLARIZATION TO PROMOTING BACTERIAL
COLONIZATION**
Armando Marrufo, University of Notre Dame

CAREER DEVELOPMENT

11:50 – 12:30 pm **GRANT WRITING**
Julie Barthold, MD, National Institutes of Health

UTI Hour Discussion Group: Wednesday July 20, 2022

Location: East Keynote Room

CLINICAL MANAGEMENT OF UTI

10:00 – 11:30 am

Larissa Grigoryan, MD, Baylor College of Medicine
Barbara Tratuner, MD, Baylor College of Medicine

Session 2: Thursday July 21, 2022
Location: East and West Keynote Rooms

Moderator

Ann Stapleton, Professor, University of Washington

KEYNOTE

9:00 – 9:30 am

TBN

Hans Pohl, MD, Children's National Hospital

TREATMENT AND PREVENTION OF UTI

9:30 – 9:50 am

THE ROLE OF THE GUT MICROBIOME ON SUSCEPTIBILITY TO RECURRENT UTIS

Colin Worby, PhD, Broad Institute

9:50 – 10:00 am

CDC MEASURES OF CAUTI ARE NOT RELIABLE IN PEOPLE WITH SPINAL CORD INJURY

Alexa Ryder, UTHealth Houston's McGovern Medical School

10:00 – 10:10 am

HARNESSING POLYMICROBIAL INTERACTIONS IN THE CATHETERIZED URINARY TRACT TO IDENTIFY NOVEL INHIBITORS OF *PROTEUS MIRABILIS* UREASE ACTIVITY

Beryl Guterman, University of Buffalo

10:10 – 10:30 am

BREAK

10:30 – 11:00 am

NEW CLASS OF RING-FUSED 2-PYRIDONES WITH BACTERICIDAL ACTIVITY AGAINST NON-DIVIDING ENTEROCOCCAL CELLS AND SYNERGISTIC EFFECTS WITH STANDARD-OF-CARE ANTIBIOTICS

Taylor Nye, PhD, Washington University in St. Louis

11:00 – 11:20 am

MICROENGINEERED MODELS TO STUDY UTIs

John McKinney, PhD, Swiss Federal Institute of Technology in Lausanne

11:20 – 11:30 am

TREATMENT WITH RECOMBINANT INTERLEUKIN-22 PROTECTS AGAINST UROPATHOGENIC *ESCHERICHIA COLI*-INDUCED KIDNEY INFECTION IN MICE

Malcolm Starkey, MD, Monash University, Australia

Panel Discussion: Saturday, July 23, 2022
Location: East and West Keynote Rooms

Moderator:

Christina Ching, MD, Associate Professor
The Abigail Wexner Research Institute at Nationwide Children's Hospital

KEYNOTE

9:00 – 9:30 am

A RETROSPECTIVE VIEW OF THE CHANGING LANDSCAPE OF UTIs

Thomas “Mac” Hooton, MD, Professor Emeritus

UTIGA Survey Results

9:45 – 10:00 am

EYE-OPENING PATIENT PERSPECTIVES ON UTIs AND A WAY FORWARD

Marissa Valentine-King, MD, Baylor College of Medicine

PANEL DISCUSSION

10:00 – 10:50 am

INTRODUCTION TO PANELISTS

Panel Members

Douglass Clayton, MD, Vanderbilt University

Suzanne Groah, MD, Georgetown University

Elizabeth Lucas, MD, Nationwide Children's Hospital

Lona Mody, MD, University of Michigan

Kate Moore, MD, University of New South Wales

10:55 – 11:10 am

BREAK

11:10 – 12:00 pm

Panel Discussion

Session 4: Monday July 25, 2022
Location: East and West Keynote Rooms

Moderator

Chelsie Armbruster, Associate Professor, University of Buffalo

KEYNOTE

9:00 – 9:30 am

NEW GENOMIC APPROACHES TO UNDERSTANDING UPEC VIRULENCE
Swaine Chen, MD/PhD, National University of Singapore and Genome Institute of Singapore

UTI SUSCEPTIBILITY

9:30 – 9:50 am

HOST AND MICROBIAL FACTORS CONTRIBUTING TO UTI-ASSOCIATED PRETERM BIRTH IN AN IN VIVO MODEL.
Kathryn Patras, PhD, Baylor College of Medicine

9:50 – 10:00 am

THE TAXONOMIC ECOLOGY AND FUNCTIONAL POTENTIAL OF THE UROBIOME IS SHAPED BY RECURRENT UTI AND ESTROGEN IN POSTMENOPAUSAL WOMEN
Michael Neugent, PhD, The University of Texas at Dallas

10:00 – 10:10 am

RELAPSING URINARY TRACT INFECTION AND BACTERIAL RESILIENCE IN KIDNEY TRANSPLANT RECIPIENTS
Thuvaraka Ware, MSc, University College London

10:10 – 10:30 am

BREAK

10:30 – 11:00 am

NEW FRONTIERS IN THERAPEUTIC REGIMENS FOR TREATMENT AND MITIGATION OF UTIS
Indira Mysorekar, PhD, Baylor College of Medicine

11:00 – 11:20 am

TBD
Teri Hreha, PhD, Washington University in St. Louis

11:20 – 11:30 am

GARDNERELLA COVERT PATHOGENESIS: CONSEQUENCES FOR BLADDER GENE EXPRESSION, UROTHELIAL TURNOVER AND UPEC UTI
Nicole Gilbert, PhD, Washington University in St. Louis

11:30 – 12.00 pm

INTERCALATED CELLS, GUARDIANS OF THE KIDNEY AGAINST ASCENDING PYELONEPHRITIS
Andrew Schwaderer, MD, Indiana University

Poster Session: Tuesday July 26, 2022

Location: Poster Rooms

Noon to 2:00 PM EDT

Please join us in Gather.town to learn about all of the cutting-edge investigations. Follow the UTIGA logo to the poster rooms. We have 81 posters to visit and this is the first of two formal sessions to meet the presenter and hear about their work. The posters are “private areas” and will give you the opportunity to see the poster and directly interact with the presenter. If you need more time, feel free to email the presenter and set up a time at your convenience.

Session 5: Wednesday July 27, 2022
Location: East and West Keynote Rooms

Moderator

Sheryl Justice, Associate Professor, The Ohio State University

KEYNOTE

9:00 – 9:30 am

TO DO OR NOT TO DO IN DIAGNOSTICS AND TREATMENT OF UTI

Suzanne Geerlings, MD, Academisch Medisch Centrum Universiteit van Amsterdam

EMERGING AND UNDERSTUDIED UTI

9:30 – 9:50 am

DEFICIENCIES IN THE FIBRINOLYTIC SYSTEM PREDISPOSES THE HOST TO DEVELOP A CATHETER-ASSOCIATED UTI

Ana Flores-Mireles, PhD, Notre Dame University

9:50 – 10:00 am

CATHETERIZATION TRIGGERS RESURGENT INFECTION SEEDING BY HOST *ACINETOBACTER BAUMANNII* RESERVOIRS

Jennie Hazen, Washington University in St. Louis

10:00 – 10:20 am

BREAK

10:20 – 10:50 am

TBD

Glen Ulett, PhD, Griffith University

10:50 – 11:00 am

COMPARATIVE GENOMICS OF *PROTEUS MIRABILIS* STRAINS IN RELATION TO KIN DISCRIMINATION PHENOMENON

Dawid Gmitter, PhD, Jan Kochanowski University in Kielce

11:00 – 11:20 am

***S. AUREUS* CLINICAL ISOLATES CHRONICALLY COLONIZING INDWELLING URINARY CATHETERS EXHIBIT ALTERED UREASE ACTIVITY**

Jennifer Walker, PhD, UTHealth Houston's McGovern Medical School

11:20 – 11:30 am

ORGAN AGAR REVEALS PHYSIOLOGICALLY RELEVANT URINARY FITNESS FACTORS FOR *PROTEUS MIRABILIS*

Melanie Pearson, PhD, University of Michigan

11:30 – 11:50 am

GENOMIC ANALYSES TO IDENTIFY DRIVERS OF GROUP B STREPTOCOCCAL VAGINAL COLONIZATION

Lindsey Burcham, PhD, University of Tennessee Knoxville

UTI Hour Discussion Group: Wednesday July 29, 2022

Location: East Keynote Room

9:00 – 11:00 am Poster Session

PATHOGENESIS OF UTI

11:00 – 12:30 pm *Ana Flores-Mireles, PhD, Notre Dame University*

IMPROVE YOUR KNOWLEDGE: LEARN ABOUT KIDNEY DEVELOPMENT

12:30 – 1:30 pm *Ashely Jackson, PhD, The Abigail Wexner Research Institute at Nationwide Children's*

