What We’ve Got & What We Really Need in Genitourinary Reconstructive Surgery

Morning Session

10:00-10:05 am  Opening Remarks: Dr. Daniela Andrich – GURS President

10:05-10:10 am  Introduction of Brantley Scott Lecturer – Dr. Sean Elliott

   Associate Professor and Vice Chairman of the Department of Urology and Director of
   Reconstructive Urology at the University of Minnesota

Dr. Elliott is also the Chief of Urology at Hennepin County Medical Center, Director of
Urology at Gillette Lifetime Clinic, and the Medical Director of Care Coordination at M
Health. He received his M.D. at Baylor College of Medicine in Houston, Texas and
conducted a urology residency at the University of California-San Francisco. He is a
fellowship-trained reconstructive urologist. His career is focused on improving patients'
quality of life by rebuilding injured organs in the genitourinary system. His clinical
practice includes reconstruction of urethral strictures, the injured ureter, urinary
fistulas, male urinary incontinence, neurogenic bladder, erectile dysfunction,
Peyronie’s disease and trapped or buried penis. Dr. Elliott’s research activities
complement his clinical activities in that he is working to improve cancer survivorship
by addressing the adverse effects of surgery and radiation to the urinary tract. He has
completed a Master’s of Science in Health Services Research with a focus on Outcomes
Research and was a participant in the University of Minnesota Medical Center’s
Emerging Physician Leadership Program. He is principal investigator of an American
Cancer Society award titled, “Understanding the severe urinary adverse effects of
pelvic radiotherapy” and is Secretary/Treasurer of the Society of Genitourinary
Reconstructive Surgeons.

10:10-10:40 am  Brantley Scott Lecture: Overview of Medical Device Concepts of Artificial Urinary
   Sphincters – New & Old

10:40-10:45 am  Introduction of Devine Lecturer – Dr. Margit Fisch

   Chair of the Department of Urology and Pediatric Urology at the University Medical
   Center, Hamburg-Eppendorf, Germany

Professor Margit Fisch’s major interests lie in Reconstructive and Pediatric Urology.
She was President of the Society of Genitourinary Surgeons and the European Society
of Genitourinary Surgeons. She is an inter-alia member of the American Academy of
Genitourinary Surgeons, the Society of Pelvic Surgeons and the Society of Pediatric
Urologic Surgeons. She organizes the International Meeting of Reconstructive Urology
(IMORU).

10:45-11:15 am  Devine Lecture: Overview of Penile Urethral Reconstruction – Old & New
Lunch Break – Lunch on Own
11:15 am-12:15 pm

Afternoon Session
1. State-of-the-Art Lectures
I. The Need

- We need “physiological” bladder, ureteric, urethral and penile replacements. Established surgical techniques in reconstructive urological surgery, using “next best” body tissues, are not performing as well as we would like to believe.
- The problem with antibiotic resistance is reported in prime time news around the globe. Are there any new concepts to antibiotic treatment?

12:15-12:20 pm  Introduction of Dr. Tony Mundy
Professor of Urology, Institute of Urology, University College, London, UK
Professor Mundy is a World-renowned urologist in reconstructive urology with a special interest in urethral strictures, incontinence, complications of prostate cancer treatment and urinary tract and bladder reconstruction. His 35-year surgical experience and contribution enables him to give a unique overview of historic and contemporary surgical management in reconstructive urology.

12:20-12:50 pm  What We’ve Got and What We Really Need in Genitourinary Reconstructive Surgery

II. Innovation and Strategies for Solutions

- Medical technology is developing rapidly, but bringing innovative ideas to the bed site is challenging. We invite leading Academic and Industry partners for their insight into the complexity of bringing science into clinical practice.

12:50-12:55 pm  Introduction of Dr. Anthony Atala
WH Boyce Professor and Director of the Wake Forest Institute for Regenerative Medicine, and Chair of the Department of Urology at Wake Forest School of Medicine, Winston-Salem, North Carolina
Regenerative Medicine is “a practice that aims to refurbish diseased or damaged tissue using the body’s own healthy cells”. Professor Anthony Atala developed the first lab-grown organ, a bladder, to be implanted into a human and pioneered amniotic fluid stem cell research, which are “easier to grow than human embryonic stem cells, and he stated that “a bank with 100,000 specimens of the amniotic stem cells theoretically could supply 99% of the US population with perfect genetic matches for transplants”.

12:55-1:25 pm  State-of-the-Art Tissue Engineering and Printable Organs
1:25-1:30 pm  Introduction of Dr. Alexander Seifalian
Professor of Nanotechnology & Regenerative Medicine, University College, London, UK
Professor Seifalian’s current projects have led to the development of cardiovascular implants using nanomaterials and stem cell technology, and the development of organs using tissue engineering and nanoparticles for detection and treatment of cancer. He has also developed a family of nanoparticles and nanocomposite polymers for a range of biomedical applications. More recently he developed a lacrimal drainage conduit, vascular bypass graft, trachea and early developments of an artificial urethra made from noncomposite polymers and stem cells and delivered them from the laboratory directly to the patient.

1:30-2:00 pm  Development of Genitourinary Organs Using 3D Scaffold Made From Nanotechnology Based Materials Functionalized with Bioactive Molecules and Stem Cells

2:00-2:05 pm  Introduction of Dr. Adin Ross-Gillespie
Microbial Evolutionary Ecology, Institute of Plant Biology and Microbiology, University of Zurich, Switzerland
Pathogens evolve, and they do so very rapidly! Little wonder then that antibiotics lose efficacy over time. Alarmingly, however, our supply of new drugs is dwindling and a “post-antibiotic” world is looming. We urgently need fresh ideas and big-picture, sustainable thinking. Crucially, we need to pay more attention to evolution and ecology. In this talk Adin Ross-Gillespie will discuss how insights from this field can and should inform future strategies for infection control. A better understanding of pathogens’ social lives may be particularly important: their cooperative exploits not only provide their best defenses, but could also be their Achilles’ heel.

2:05-2:35 pm  New Strategies for Infection Control: Insights from Evolutionary Ecology

2:35-2:40 pm  Introduction of Dr. Enrique Fernandez-Caldas
Clinical Professor of Medicine, University of South Florida & Scientific Director Inmunotek, Madrid, Spain
Inmunotek is a Spanish company that develops, manufactures and markets products for diagnosing and treating diseases in the field of allergy and immunology, both for human and veterinary pathologies. Founded 40 years ago and further developed by Professor Jose Luis Subiza, still a practicing Immunologist at the University of Madrid, the company is made up by a multidisciplinary team of professionals comprising pharmacists, doctors, biologists, chemists and engineers including specialists in immunology, allergy and microbiology. The R&D focus of Inmunotek is on the development of immunomodulators, immunotherapy, tumor markers, anti-neoplastic vaccines and allergens. In Urology, they developed a sublingual spray, a bacterial vaccine, to stimulate the innate immunosystem for the prevention of recurrent UTI.

2:40-3:10 pm  From Bench to Bedside: Development of a Sublingual Bacterial Vaccine for Immunostimulation and Prevention of Recurrent Urinary Tract Infections
2. **Moderated Round Table Discussion – The Future of Innovation in Reconstructive Urology**

   **3:10-4:10 pm**  
   **Moderator:** Dr. Daniela Andrich  
   **Experts:** Dr. Anthony Mundy, Dr. Anthony Atala, Dr. Alex Seifalian, Dr. Adin Ross-Gillespie, Dr. Enrique Fernandez-Caldas

   **4:10-4:20 pm**  
   GURS Business Meeting

   **4:20pm**  
   Meeting Adjourns

**AUA Accreditation Information**

**Accreditation:** The American Urological Association (AUA) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

**Credit Designation:** The American Urological Association designates this activity for a maximum of **5.0 AMA PRA Category 1 Credits™**. Physicians should claim only the credit commensurate with the extent of their participation in the activity.