

Top-notch new technologies for tissues and bacterial cultures: New wireless diagnostics and new techniques in training

Poster Session 83

Monday, 27 March
15:45 - 17:15

Location: Room Amsterdam, North Hall (Level 1)

Chairs: T.E. Bjerklund Johansen, Oslo (NO)
Y.S. Kyung, Seoul (KR)

Aims and objectives of this session

To identify new technologies for training, diagnosing infections and wireless diagnostics for urological applications.

Poster viewing of 20 minutes. Presentations will take place on stage. Standard presentations are 2 minutes in length, followed by 2 minutes for discussion.

- 1098 **Dynamic imaging of urine flow at bladder neck during voiding by wireless capsule endoscopes in vivo**
By: Yamamoto T.¹, Mizuno H.¹, Soh S.², Funanishi Y.¹, Matsukawa Y.¹, Nakamura M.³, Gotoh M.¹
Institutes:¹Nagoya University Graduate School of Medicine, Dept. of Urology, Nagoya, Japan, ²Dokkyo Medical University, Dept. of Urology, Koshigaya, Japan, ³Nagoya University Graduate School of Medicine, Dept. of Gastroenterology, Nagoya, Japan
- 1099 **Wireless micro-robots for endoscopic applications in urology**
By: Adams F.¹, Qiu T.², Mark A.², Melde K.², Palagi S.², Miernik A.¹, Fischer P.²
Institutes:¹University Hospital Freiburg, Dept. of Urology, Freiburg, Germany, ²Max Planck Institute For Intelligent Systems, Micro Nano and Molecular Systems, Stuttgart, Germany
- 1100 **Measures of pelvic floor strength by age and parity using the Elvie device**
By: Coggins J.¹, Cartwright R.², Bergmann J.³
Institutes:¹Chiaro Technology Ltd., Data Science Department, London, United Kingdom, ²Imperial College London, Faculty of Medicine, School of Public Health, London, United Kingdom, ³University of Oxford, Institute of Biomedical Engineering, Oxford, United Kingdom
- 1101 **Experimental study on establishing tissue engineered bionic urethra by cell sheet technology and labeled by ultrasmall super-paramagnetic iron oxide (USPIO) for full-thickness urethral reconstruction**
By: Fu Q., Zhou S.
Institutes:Shanghai Sixth People's Hospital, Dept. of Urology, Shanghai, China
- 1102 **Modifying the surface chemistry of biomaterials designed for surgical treatment of stress urinary incontinence to reduce bacterial adhesion**
By: Roman S.¹, Mangir N.¹, Chapple C.², McArthur S.L.³, MacNeil S.¹
Institutes:¹University of Sheffield, Dept. of Material Science and Engineering, Sheffield, United Kingdom, ²Royal Hallamshire Hospital, Dept. of Urology, Sheffield, United Kingdom, ³Swinburne University of Thechnology, Biointerface Engineering Group and Polymer Nanointerface Engineering Group, Melbourne, Australia
- 1103 **Surface acoustic waves prevent bacterial colonization in indwelling urinary catheters**
By: Rosenblum J.¹, Markowitz S.², Goldstein M.³
Institutes:¹Shaarei Zedek Medical Center, Dept. of Urology, Bet Shemesh, Israel, ²Shaarei Zedek Medical Center, Dept of Urology, Bet Shemesh, Israel, ³Private Practice, Dept. of Urology, Bet Shemesh, Israel

- 1104 **Photodynamic therapy's use in reduction in vitro of prevalent bacteria in Fournier's gangrene**
By: Pereira N., Feitosa L., Navarro R., Kozusni-Andreani D., Carvalho N.
Institutes: Unicastelo, Dept. of Biomedical Engineering, São Paulo, Brazil
- 1105 **Analysis of errors in 3D printing phantoms for partial nephrectomy**
By: Kyung Y.S.¹, Choi S.Y.³, Kim G.B.², Song H.K.², Kim H.², You D.³, Jeong I.G.³, Homg J.H.³, Kim N.², Kim C-S.³
Institutes: ¹University of Ulsan College of Medicine, Asan Medical Center, Dept. of Health Screening and Promotion Center, Seoul, South Korea, ²University of Ulsan College of Medicine, Asan Medical Center, Dept. of Biomedical Engineering Research Center, Seoul, South Korea, ³University of Ulsan College of Medicine, Asan Medical Center, Dept. of Urology, Seoul, South Korea
- 1106 **Feasibility and safety of augmented reality-assisted urological surgery**
By: Rodríguez Socarrás M.E.¹, Tortolero Blanco L.², Salem J.³, Tsaur I.⁴, Gomez-Rivas J.⁵, Barret E.⁶, Borgmann H.⁴
Institutes: ¹University Hospital Alvaro Cunqueiro, Dept. of Urology, Vigo, Spain, ²University Hospital Vinalopo, Dept. of Urology, Elche, Spain, ³University Hospital Cologne, Dept. of Urology, Cologne, Germany, ⁴University Hospital Mainz, Dept. of Urology, Mainz, Germany, ⁵University Hospital La Paz, Dept. of Urology, Madrid, Spain, ⁶Institut Montsouris, Université Paris-Descartes, Dept. of Urology, Paris, France
- 1107 **Video analysis of skill and technique (VAST): Machine learning to assess the technical skill of surgeons performing robotic prostatectomy**
By: Ghani K.¹, Liu Y.², Law H.², He D.², Miller D.¹, Montie J.¹, Deng J.²
Institutes: ¹University of Michigan, Dept. of Urology, Ann Arbor, United States of America, ²University of Michigan, Dept. of Computer Science & Engineering, Ann Arbor, United States of America
- 1108 **During endoscopic surgery, eye fatigue in surgeons can be reduced by wearing polarized lens glasses**
By: Iwabuchi T., Kawano Y., Narumi S., Oiwa Y., Ottomo T., Yokoyama H., Noda Y., Ishikawa S., Watanabe H., Uetani M., Yamamoto R., Hriu K., Minowada S.
Institutes: Tokyo Nephro Urology Center, Yamato Hospital, Dept. of Urology, Tokyo, Japan
- 1109 **Folic acid-conjugated AuAg nanoparticles combined surface enhanced Raman spectroscopy for rapid detection of bladder cancers in urine**
By: Chuang T.Y.¹, Chiu Y.C.¹, Yang Y.T.², Lin C.H.³, Liao M.Y.⁴, Huang C.C.³
Institutes: ¹Taipei City Hospital, Zhongxiao Branch, Dept. of Urology, Taipei, Taiwan, ²National Pingtung University, Dept. of Applied Chemistry, Pingtung, Taiwan, ³Center For Micro/Nano Science and Technology and Advanced Optoelectronic Technology Center, National, Dept. of Photonics, Tainan, Taiwan, ⁴National Cheng Kung University, Medical Laboratory Science and Biotechnology, Tainan, Taiwan
- 16:56 - 17:03 **Summary**
E. Liatsikos, Patras (GR)