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, Funanshi 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
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**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

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**1105**

**Analysis of errors in 3D printing phantoms for partial nephrectomy**


**Institutes:** University of Ulsan College of Medicine, Asan Medical Center, Dept. of Health Screening and Promotion Center, Seoul, South Korea, University of Ulsan College of Medicine, Asan Medical Center, Dept. of Biomedical Engineering Research Center, Seoul, South Korea, University of Ulsan College of Medicine, Asan Medical Center, Dept. of Urology, Seoul, South Korea

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**1106**

**Feasibility and safety of augmented reality-assisted urological surgery**

**By:** Rodríguez Socarrás M.E., Tortolero Blanco L., Salem J., Tsaur I., Gomez-Rivas J., Barret E., Borgmann H.

**Institutes:** University Hospital Alvaro Cunqueiro, Dept. of Urology, Vigo, Spain, University Hospital Vinalopo, Dept. of Urology, Elche, Spain, University Hospital Cologne, Dept. of Urology, Cologne, Germany, University Hospital Mainz, Dept. of Urology, Mainz, Germany, University Hospital La Paz, Dept. of Urology, Madrid, Spain, Institut Montsouris, Université Paris-Descartes, Dept. of Urology, Paris, France

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**1107**

**Video analysis of skill and technique (VAST): Machine learning to assess the technical skill of surgeons performing robotic prostatectomy**

**By:** Ghani K., Liu Y., Law H., He D., Miller D., Montie J., Deng J.

**Institutes:** University of Michigan, Dept. of Urology, Ann Arbor, United States of America, University of Michigan, Dept. of Computer Science & Engineering, Ann Arbor, United States of America

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**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

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**1109**

**Folic acid-conjugated AuAg nanoparticles combined surface enhanced Raman spectroscopy for rapid detection of bladder cancers in urine**

**By:** Chuang T.Y., Chiu Y.C., Yang Y.T., Lin C.H., Liao M.Y., Huang C.C.

**Institutes:** Taipei City Hospital, Zhongxiao Branch, Dept. of Urology, Taipei, Taiwan, National Pingtung University, Dept. of Applied Chemistry, Pingtung, Taiwan, Center For Micro/Nano Science and Technology and Advanced Optoelectronic Technology Center, National, Dept. of Photonics, Tainan, Taiwan, National Cheng Kung University, Medical Laboratory Science and Biotechnology, Tainan, Taiwan

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**16:56 - 17:03**

**Summary**

E. Liatsikos, Patras (GR)