## SESSION LECTURE

**No.13**

**Medical Imaging**

**Room: 403**

**Co-Chairs: Qingming Luo**  **Hong Liu** 

| Day 1 October 27th (Saturday) 13:30 – 17:00 | | |
|---|---|---|
| **Time** | **Speaker** | **Title** |
| 13:30-14:00 | **Qingming Luo**<br>*Huazhong University of Science and Technology, China* | Visualizing Brain-wide Networks at Single-neuron Resolution with Micro-Optical Sectioning Tomography |
| 14:00-14:30 | **Hong Liu**<br>*The University of Oklahoma, USA* | Advanced X-ray Imaging Research for Cancer Diagnosis |
| 14:30-15:00 | **Kai Yang**<br>*Massachusetts General Hospital, USA* | Current status and new findings from radiation dose monitoring and analysis for computed tomography (CT) |
| 15:00 – 15:30 | **Tea Break** | |
| 15:30-16:00 | **Changqing Li**<br>*University of California, Merced, USA* | Development of a focused X-ray luminescence tomography (FXLT) system |
| 16:00-16:30 | **Shanbao Tong**<br>*Shanghai Jiao Tong University, China* | Optical neurovascular imaging and applications |
| 16:30-17:00 | **Qingguo Xie**<br>*Huazhong University of Science and Technology, China* | Digital PET: LEGO for Scientist |

**Qingming Luo**

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Prof. Luo's research interests focus primarily on multi-scale optical bioimaging and crosslevel information integration. He created "the most detailed threedimensional map of all the connections between the neurons in a complete mouse brain" and "demonstrated the first longrange tracing of individual axons in the mouse brain".

**Hong Liu**

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Dr. Hong Liu is currently the Charles and Jean Smith Chair in Biomedical Engineering, George Lynn Cross Professor of Electrical and Computer Engineering, adjunct Professor of Medicine. His research interests about Medical imaging including X-ray science and technology, Digital mammography/radiography/ fluoroscopy, Optical imaging devices.

**Shanbao Tong**

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Prof. Tong is the director of neural engineering laboratory, Shanghai Jiao Tong University. His research interests include neural signal processing, neurophysiology of brain injury, and cortical optical imaging. He is the founding chairs of the IEEE EMBS Shanghai Chapter and the IEEE EMBS international summer school on neural engineering (ISSNE).

**Kai Yang**

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Dr. Kai Yang is Instructor of Radiology at Harvard Medical School and a boardcertified diagnostic medical physicist currently working at Massachusetts General Hospital. Dr. Yang's research has been focusing on Computed Tomography (CT), breast imaging, cone-beam CT, radiation shielding, and advanced topics related to x-ray imaging.

**Qingguo Xie**

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Prof. Xie and his team have endeavored in the field of physics, electronics, and mathematics, to develop a whole system of all-digital PET technology, with focuses on scintillation materials, photodetectors, signal processing methods and reconstruction algorithms. They are also exploring new applications for both preclinical and clinical researches, as well as the development and validation for new drugs and therapeutic approaches.

**Changqing Li**

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Changqing Li, PhD, Associate Professor in Department of Bioengineering, University of California Merced, Merced, CA, USA. Dr. Li has published more than 40 peer reviewed journal papers. In 2009, Dr. Li was awarded the molecular imaging postdoctoral award from the Society of Nuclear Medicine. In 2012, Dr. Li received the Alavi Mandell Award from the Society of Nuclear Medicine. In 2014, Dr. Li received IDEA award from California Breast Cancer Research Program. Dr. Li's research, partially supported by NIH, focuses on the biomedical imaging and its applications in cancer detection, drug delivery, and radiotherapy monitor.