

2018 MOLECULAR IMAGING INSTRUMENTATION CONFERENCE

PET/MRI & SPECT/MRI

GUANGDONG
April 15, 2018

HONG KONG
April 16-17, 2018



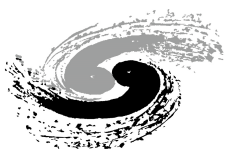
AT THE FOREFRONT

**UChicago
Medicine**



THE UNIVERSITY OF
CHICAGO

Center in
Hong Kong



中國科學院高能物理研究所
Institute of High Energy Physics
Chinese Academy of Sciences



香港城市大學
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Organizers:

- **University of Chicago (UChicago) Pritzker School of Medicine**
- **University of Chicago (UChicago) Center in Hong Kong**

Co-organizers:

- **The Institute of High Energy Physics (IHEP) of the Chinese Academy of Sciences (CAS)**
- **The University of Hong Kong (HKU)**
- **Shenzhen Institutes of Advanced Technology (SIAT) of the CAS**
- **City University of Hong Kong (CityU)**

AGENDA

April 15 (Sunday)

Venue: China Spallation Neutron Source (CSNS)

Institute of High Energy Physics (IHEP)/CAS, Dongguan

- 8:50** **GATHER AT THE ROYAL GARDEN HOTEL (DALANG, DONGGUAN) LOBBY FOR BUS RIDE* TO CSNS**
- 9:00** **REGISTRATION**
- 9:30** **Welcome and Opening Remarks**
 ➤ Long WEI, PhD, IHEP
 ➤ Chin-Tu CHEN, PhD, UChicago
- SESSION 1** **CO-CHAIRS: Zhiming ZHANG, PhD, IHEP**
 Chien-Min KAO, PhD, UChicago
- 9:35** **“Overview of CSNS & School of Nuclear Science and Technology, University of Chinese Academy of Sciences”**
 ➤ Long WEI, PhD, IHEP
- 10:05** **“The New Progress of Molecular Imaging in IHEP”**
 ➤ Zhe WANG, PhD, IHEP
- 10:30** **“Detector Optimization for A Dedicated Brain PET Scanner”**
 ➤ Qian YANG, PhD, SIAT
- 10:55** **BREAK**
- SESSION 2** **CO-CHAIRS: Yongfeng YANG, PhD, SIAT**
 Ching-Han HSU, PhD, Tsing-Hua University (Hsinchu)
- 11:10** **“PET/MRI and SPECT/MRI Multi-Modality Theranostic Probes”**
 ➤ Chin-Tu CHEN, PhD, UChicago
- 11:35** **“Accelerator Produced Iodine-124 and Applications in Molecular Imaging”**
 ➤ Wenjiang YANG, PhD, IHEP
- 12:00** **LUNCH & TOUR OF CSNS**

**Bus Ride for Pre-registered Guests Only*

Venue: CSNS/IHEP/CAS, Dongguan

SESSION 3 **CO-CHAIRS:** Ling-Jian MENG, PhD, Univ. of Illinois at Urbana/Champaign (UIUC)
Jyh-Cheng CHEN, PhD, Nat'l Yang-Ming University (NYMU)

14:00 **“Research on Key Technology of MBI system”**

➤ Xianchao HUANG, PhD, IHEP

14:30 **“The Development of Electronic System in Nuclear Imaging Equipment”**

➤ Xiaohui LI, PhD, IHEP

14:55 **“Dual-Ended Readout Small Animal PET Detectors with 0.5 mm Pixelated LYSO Crystal Arrays and SiPMs”**

➤ Zhonghua KUANG, PhD, SIAT

15:20 **BREAK**

SESSION 4 **CO-CHAIRS:** Cunfeng WEI, PhD, IHEP
Chen-Ying CHOU, PhD, NTU

15:35 **“Performance of A Long Rectangle Semi-Monolithic LYSO Scintillator PET Detector”**

➤ Xin FU, PhD, SIAT

16:00 **“The Application of Sub-Surface Laser Engraving in Scintillation Detectors n”**

➤ Haohui TANG, PhD, IHEP

16:25 **PANEL DISCUSSION**

➤ Long WEI, PhD, IHEP

➤ Chin-Tu CHEN, PhD, UChicago

17:00 **DINNER**

18:00 **GATHER AT THE LOBBY FOR BUS RIDE* TO L'HOTEL ISLAND SOUTH (HONG KONG)**

**Bus Ride for Pre-registered Guests Only*

Venue: UChicago Center in Hong Kong

- 8:45** **GATHER AT THE L'HOTEL ISLAND SOUTH (HK) LOBBY FOR BUS RIDE* TO THE CENTER IN HONG KONG**
- 9:30** **WELCOME AND OPENING REMARKS - Auditorium**
- Kitty CHONG, UChicago Center in Hong Kong
 - Chin-Tu CHEN, PhD, UChicago
- SESSION 5** **CO-CHAIRS:** Chien-Min KAO, PhD, UChicago
- 9:35** **“Simultaneous PET/MR in Brain Cancer and Cardiac Applications”**
- Georges EL FAKHRI, PhD, Harvard Medical School and Massachusetts General Hospital (MGH/Harvard)
- 10:05** **“Dynamic PET/MR in neurological disease”**
- Garrett HO, MD, Hong Kong Sanatorium & Hospital (HKS&H)
- 10:35** **“MRI and PET Imaging of Brain Circuits”**
- Ed X. WU, PhD, HKU
- 11:05** **BREAK**
- SESSION 6** **CO-CHAIRS:** Garrett HO, MD, HKS&H
Mythra Varun NEMALLAPUDI, PhD, Institute of Physics/Academia Sinica (IOP/AS)
- 11:30** **“Developments of High Resolution MRI Compatible PET Scanners at SIAT”**
- Yongfeng YANG, PhD, SIAT
- 12:00** **“A PET Insert for Preclinical PET-MRI Using TOF-Capable Strip-Line Readout and MVT Sampling DAQ: Recent Advances”**
- Chien-Min KAO, PhD, UChicago
- 12:30** **LUNCH - Function Room**

Venue: UChicago Center in Hong Kong

SESSION 7 **CO-CHAIRS:** Charles CHANG, PhD, HKU
Zhanli HU, PhD, SIAT

13:30 **“Development of the MRC-SPECT-C: An Ultrahigh Performance MR-Compatible SPECT System for Clinical Cardiovascular Imaging”**
➤ Ling-Jian MENG, PhD, UIUC

14:00 **“Advances in Image Reconstruction for PET/MR Imaging”**
➤ Cheng-Ying CHOU, PhD, Nat’l Taiwan University (NTU)

14:30 **“Detector Development at Academia Sinica for TOF-PET Applications”**
➤ Mythra Varun NEMALLAPUDI, PhD, IOP/AS

15:00 **BREAK**

SESSION 8 **CO-CHAIRS:** ED X. WU, PhD, HKU
Pek Lan KHONG, MD, HKU

15:30 **“Reduction of Motion-Related Artifacts in MRI”**
➤ Charles CHANG, PhD, HKU

16:00 **“Performance Evaluation of Preclinical PET/MRI NanoScan with NEMA IQ-Phantom and Self-Designed Phantoms”**
➤ Jyh-Cheng CHEN, PhD, NYMU

16:30 **Panel Discussion**
➤ Chin-Tu CHEN, PhD, UChicago

17:30 **TOUR OF UCHICAGO CENTER**

18:00 **GROUP DINNER**
Golden Lilies Banquet - Shop 102, the Arcade, 100 Cyberport Road

19:30 **GATHER AT GOLDEN LILIES BANQUET ENTRANCE FOR BUS RIDE* TO THE L’HOTEL ISLAND SOUTH (HK)**

**Bus Ride for Pre-registered Guests Only*

Venue: UChicago Center in Hong Kong

- 8:15** **GATHER AT THE L'HOTEL ISLAND SOUTH (HK) LOBBY FOR BUS RIDE* TO THE CENTER IN HONG KONG**
- SESSION 9** **CONFERENCE PLENARY SESSION – Auditorium**
Honorary Keynote Speaker: Way KUO, PhD
President, City University of Hong Kong (CityU)
- 9:00** **Introduction**
➤ Chin-Tu CHEN, PhD, UChicago
- 9:02** **“Data Analysis and Accountability”**
➤ Way KUO, PhD, CityU
- 9:40** **GROUP PHOTO**
- 9:45** **BREAK**
- SESSION 10** **SPECIAL MINI-WORKSHOP ON “MOLECULAR IMAGING AND ONE HEALTH”**

CO-CHAIRS: Michael YANG, PhD, CityU
Chin-Tu CHEN, PhD, UChicago
- 10:00** **Welcome and Opening Remarks**
➤ Michael YANG, PhD, CityU
➤ Chin-Tu CHEN, PhD, UChicago
- 10:05** **“Targeting Cancer Stem Cells by Hyperthermia Using Magnetic Nanoparticles”**
➤ Michael YANG, PhD, CityU
- 10:25** **“Development of Theranostic Agents for Cancer Imaging and Treatment”**
➤ Gigi LO, PhD, CityU
- 10:45** **“Of Mice and Men – An Imaging Perspective”**
➤ Georges EL FAKHRI, PhD, MGH/Harvard

AGENDA

April 17 (Tuesday)

Venue: UChicago Center in Hong Kong

- 11:05** **“Developing Fluorescent Probes for Biological Applications”**
➤ Hongyan SUN, PhD, CityU
- 11:25** **“Upconversion Nanoparticles for Biological Imaging and Therapy”**
➤ Wang FENG, PhD, CityU
- 11:45** **“Design Considerations for Developing PET Systems in Veterinary Imaging”**
➤ Chien-Min KAO, PhD, UChicago
- 12:05** **LUNCH- Function Room**
- 12:45** **“Neuronal Imaging: From Circuits to Behavior”**
➤ Geoff LAU, PhD, CityU
- 13:05** **“MR Imaging of Molecules in Cancer and Regenerative Medicine”**
➤ Kannie CHAN, PhD, CityU
- 13:25** **“Imaging and One Health”**
➤ Chin-Tu CHEN, PhD, UChicago
- 13:45** **Panel Discussion**
 Co-Moderators: Michael YANG, PhD, CityU
 Chin-Tu CHEN, PhD, UChicago
 Panelists: ALL Speakers
 Pek Lan KHONG, MD, HKU
 Ed X. WU, PhD, HKU
 Ling-Jian MENG, PhD, UIUC
- 14:30** **CLOSING REMARKS**
➤ Michael YANG, PhD, CityU
➤ Long WEI, PhD, IHEP
➤ Chin-Tu CHEN, PhD, UChicago

***We thank the following corporate participants
for their generous contributions:***

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THE UNIVERSITY OF
CHICAGO

**Center in
Hong Kong**

Level 6, Cyberport 2, 100 Cyberport Road Hong Kong

www.uchicago.hk

hk@uchicago.edu

852-2533-9570