

## Fall 2016

### In This Issue:

President's Message

2016 AM CaIC Sponsored Sessions

2016 Edward Hoffman Memorial Award Lecture

2016 Tracy Lynn Faber Memorial Award

2016 CaIC Young Investigator Awards

Mid-Winter Meeting Preview

Future CaIC-Sponsored Continuing Education Activities: Give Us Your Ideas

Board Certification

CaIC Web Page Enhancements

SNMMI Internship Program Call for Nominations

### President's Message

*James Galt, PhD, CaIC President*



Welcome to all Computer and Instrumentation Council members! This Fall 2016 newsletter highlights educational activities of the council at the recently concluded 2016 SNMMI Annual Meeting in June and the upcoming Midwinter Meeting in January 2017. These sessions are made possible by the dedicated volunteer efforts of council members and are an important function of the council. Several CaIC scientific awards were presented at the Annual Meeting and many of these awards are highlighted in the articles that follow. The CaIC provides the opportunity for computer and instrumentation scientists (whether they be physicist, engineer, physician or technologist) to network and contribute to the advancement of technical aspects of molecular imaging and therapy.

If you have ideas, suggestions or comments on council activities, please contact me or one of the CaIC board members with your thoughts. We look forward to hearing from you!

### 2016 Annual Meeting CaIC Sponsored Sessions

The Computer and Instrumentation Council (CaIC) was pleased to sponsor the following categorical session and continuing education sessions at the June 2016 SNMMI Annual Meeting in San Diego, CA. All of the sessions were well attended.

- Advances in Nuclear Cardiology
- Frontiers in Nuclear Medicine Motion Management
- Accreditation and Quality Control Standards for Imaging Equipment: What You Need to Know in 2016

- Time-of-Flight PET Imaging: Physics and Clinical Impact
- Cardiac SPECT Instrumentation: An Overview and New Advances
- Advances in Cardiac Protocols -
- Basic Science Summary Session, II
- Towards Enhanced Prognostic Utility of PET Imaging
- Basics and Advances in Liver-Directed Radiotherapy
- Current and Future Potential in Kinetic Modeling and Parametric Imaging
- PET/MR I: Technical Advances
- PET/MR II: Clinical Applications
- Clinical Practice and Applications of Low Dose Molecular Breast Imaging

### 2016 Edward Hoffman Memorial Award Lecture



This award was established to honor the memory of Professor Edward J. Hoffman. It recognizes scientists in the field of nuclear medicine for their service and devotion to research and development of nuclear medicine instrumentation and to educating and training the next generation of scientists.

The 2016 Hoffman Award was presented to **Irene Buvat, PhD** during the Ed Hoffman Memorial CE lecture at the SNMMI Annual Meeting.

Pictured from left to right: Irene Buvat, PhD 2016 Hoffman Award recipient and Scott Metzler, PhD, CaIC Immediate Past President

### 2016 Tracy Lynn Faber Memorial Award



The award was established to honor the memory of Tracy Lynn Faber and is given each year to support advancement of women in medical imaging sciences. The award is given either to an individual who has promoted significantly advancement of women in medical imaging sciences, or to a woman in early- or mid-career who has made one or more significant contributions to medical imaging sciences.

The 2016 Faber Award was presented to **Joyita Dutta, PhD** during the CaIC business meeting.

Pictured from left to right: Quanzheng Li, PhD, Joyita Dutta, PhD, Scott Metzler, PhD and Tim Turkington, PhD

## 2016 CalC Young Investigator Awards

The CalC YIAs are reserved for the best scientific abstracts on computer and instrumentation nuclear medicine by young investigators. These awards were presented during the 2016 SNMMI Annual Meeting.

**1st Place.** Sandra Van Der Velden (UMC Utrecht). Simultaneous fluoroscopy and nuclear imaging: Impact of collimator choice on nuclear image quality.

**2nd Place.** Catriona Wimberly (IMIV, Inserm, CEA, Paris-Sud University). Optimisation of quantification for 18F-DPA-714 in the healthy human.

**3rd Place.** Srilalan Krishnamoorthy (University of Pennsylvania). Proton beam range verification with a dedicated in-situ partial-ring time-of-flight PET scanner.

**Honorable Mention.** Qian Wang (Stanford University). A systematic evaluation of 18F positron imaging using radioluminescence microscopy by computational simulation.

**Honorable Mention.** Elena Maria Zannoni (University of Illinois Urbana Champaign). Design study for MRC-SPECT-II: A new generation of MR-Compatible SPECT System bioinspired by superposition compound eyes for ultrahigh resolution SPECT imaging.

**Honorable Mention.** Wentao Zhu (UIH America). (a) Ultra-Low dose brain FDG PET imaging with an iterative all-TOF MLAA algorithm, and (b) Accurate quantification for delayed FDG PET/CT imaging without secondary CT exposure.

Congratulations to the following YIA winners pictured below with Scott Metzler, PhD, CalC Immediate Past President.

**1st Place** – Sandra Van Der Velden



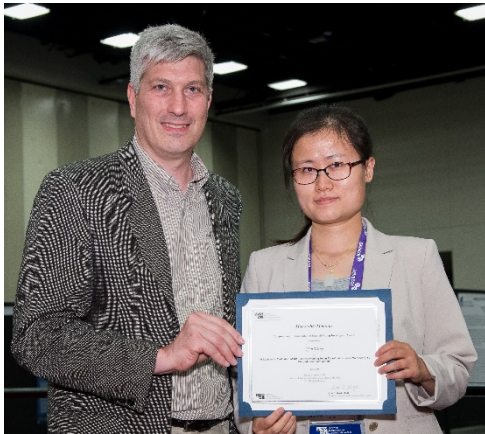
**2nd Place** – Catriona Wimberly



**3rd Place – Srilalan Krishnamoorthy**



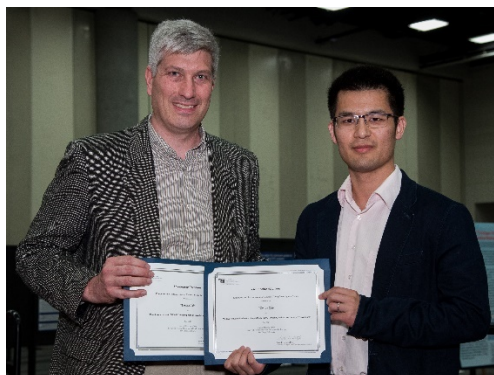
**Honorable Mention - Qian Wang**



**Honorable Mention - Elena Maria Zannoni**



**Honorable Mention - Wentao Zhu**



## Mid-Winter Meeting Preview

Mark Your Calendars! Please make plans to attend the [SNMMI 2017 Mid-Winter Meeting](#), January 19-22, 2017 at the Arizona Grand Resort in Phoenix, Arizona!

CaIC will sponsor the following CE Sessions:

### **January 20, 7:45-9:45 AM**

Dose Estimation and Optimization in Pediatric Nuclear Medicine (joint session with PIC)

### **January 20, 10:00 AM-12:00pm**

Visual versus quantitative analyses of dopamine transporter imaging using 123I-Ioflupane SPECT (joint session with GCNMC & BIC)

Instrumentation for Low Dose Dedicated Imaging Systems: What Features Matter and Why (joint session with CVC)

### **January 20, 12:45 PM-2:45 PM**

Quantitative Tau Imaging in neurodegenerative disease and traumatic brain injury (joint session with BIC & CIC)

Dedicated Cardiac Imaging (joint session with CVC)

### **January 20, 6:30-8:30 PM**

Advances in Molecular Imaging of Breast Cancer

### **January 22, 8:00-10:00 AM**

Role of PET/MR in cancer and non-oncologic application (joint session with PIC)

## Future CaIC-Sponsored Continuing Education Activities: Give Us Your Ideas

Is there a topic for a Continuing Education course or an all-day Categorical Seminar that you would like to see presented? Would you like to organize a Continuing Educational session at the SNMMI Annual or Midwinter meetings or would you like to give a talk as part of such a session? The CaIC board members and other council members are continuously thinking about educational activities for future SNMMI meetings and rely on input from CaIC members. Planning is well underway for the 2017 Midwinter and Annual meetings. Proposals are usually submitted in June for the Midwinter Meeting held the following January and in August for the Annual Meeting held the following June. For the 2018 meetings the educational efforts will be coordinated by Mark Smith (to become CaIC President in June 2017) and Arman Rahmim (to become CaIC Vice-President in June 2017). They look forward to your ideas!

## Board Certification

Board certification is becoming increasingly important for nuclear medicine physicists and scientists involved with nuclear medicine equipment accreditation. [The American Board of Science in Nuclear Medicine](#) (ABSNM), [American Board of Radiology](#) (ABR) and the [Canadian College of Physicists in Medicine](#) (CCPM) all offer options for certification. Individuals seeking certification should consider their career goals and the requirements of these different organizations. The ABSNM exam is usually given on the Friday immediately before the SNMMI Annual Meeting.

## CaIC Web Page Enhancements

CaIC Vice President-Elect Arman Rahmim is spearheading the introduction of new content to the [CaIC's SNMMI web page](#). Please contact him with your suggestions. Our goal is to enhance this resource for the CaIC community.

## SNMMI Councils and Centers Internship Program

SNMMI Councils and Centers are excited to announce the [Call for Applications](#) to the Councils/Centers Internship Program. The internship program was created to provide young professionals the opportunity to get involved with the Society at the Council and Center level. All applications must be received by **December 9, 2016** to be considered. The applications will be reviewed by the respective Council/Center Board of Directors. Each Council/Center will select one intern for a two-year term, which will begin at the conclusion of the SNMMI 2017 Annual Meeting in June 2017. The selected applicant will be contacted by March 2017.

### How to apply...

Please [click here](#) to download an application and return via email or fax, along with your CV and narrative statement to:

SNMMI Internship Program – Ana Hilton  
1850 Samuel Morse Drive, Reston, VA 20190  
Phone: (703) 652-6794  
Fax: (703) 708-9020  
Email: [ahilton@snmmi.org](mailto:ahilton@snmmi.org)

The deadline to submit applications is **December 9, 2016**. If you have any questions, please contact Ana Hilton at [ahilton@snmmi.org](mailto:ahilton@snmmi.org).

### 2016-2017 Computer and Instrumentation Council Board of Directors

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