

Center Report to the SNMMI Board of Directors
June 2018

COMPUTER AND INSTRUMENTATION COUNCIL

Council Mission: The Computer and Instrumentation Council is a group within The Society of Nuclear Medicine and Molecular Imaging, Inc., hereafter referred to as the Society, dedicated to the interchange of scientific and medical ideas among Society members who have interest in the creation and analysis of molecular images including evaluation, development, optimization and proper use of instrumentation as well as algorithms and software employed in nuclear medicine and molecular imaging. The overall mission of the Computer and Instrumentation Council is to:

- (a) provide a forum for members with similar interests
- (b) provide expertise in the field of interest to the membership
- (c) foster research and education in the field of interest
- (d) provide outreach to other professionals and organizations
- (e) nurture new membership into the Society
- (f) serve as a resource to SNMMI Leadership

Council Mission and SNMMI's Strategic Plan: The work of the Computer and Instrumentation Council applies to the following goals and objectives in SNMMI's Strategic Plan:

Goal B: SNMMI has advanced the development and approval of nuclear medicine and molecular imaging technologies.

Objective 1: Encourage and promote research in the field.

- a. Increase the number of facilitated collaborative research efforts among academic sites with industry.
- b. Reach out to experts in the field to involve them in work groups or coalitions that are producing new studies and papers.
- c. Support and foster collaboration between academia and industry; academia looks to industry to translate initial discoveries in patient care into new technology.

Objective 2: Increase the number of initiatives targeting the discovery and validation of diagnostic radiopharmaceuticals, radiotherapeutics and instrumentation.

CaIC Contributions:

- CaIC-sponsored CE and categorical sessions at the MWM and AM include talks that focus on instrumentation advances, new methods of analyzing static and dynamic molecular images, and their applications to clinical care.

Goal F: SNMMI has the organizational strength and sustainability to lead the field in a dynamic healthcare landscape.

- Objective 1: Strengthen membership numbers.
- d. Ensure enthusiasm.

- iii. Create a sense of community and networking opportunities among our members.

CalC Contributions:

- The CalC has reached out to the more junior members of the council to involve them in the educational programs at the MWM and AM. Two junior members will be giving talks as part of CalC-sponsored CE sessions at the 2018 AM.
- The CalC recognizes the council's YIA winners and finalists at its business meeting at the SNMMI AM so that the winners receive recognition from a broad audience of the CalC. This supplements the formal award presentation with YIA winners from all councils and centers.
- A name change for the CalC to "Physics, Instrumentation and Data Sciences Council" has been approved by the CalC Board of Directors (11 yes, 0 no) and by the CalC membership (75 yes, 2 no). This will broaden the inclusivity of the council and better align its name with the activities of its members. The next step is for this change to be voted upon by the SNMMI HOD.
- The Vice-President of the CalC (Arman Rahmim, PhD) is mentoring an intern (Nikolaos Karakatsanis, PhD) for 2017-2019. One of the goals is to have the intern organize a CE session at the 2019 AM.

CalC Council President: Mark Smith, PhD

Date of Last meeting: June 12, 2017

Date of Next meeting, June 25, 2018

Update on Council Programs:

2018 SNMMI Mid-Winter Meeting CE Session

- *A Primer on PET Instrumentation, Image Reconstruction and Analysis Software, and Essential Quality Control*

2018 SNMMI Annual Meeting Categorical Sessions

- *PET/CT and PET/MR for Adults and Children: Fundamental and Evolving Practices (Co-Sponsored with the PET CoE and PIC)*
- *Radiomics and Machine Learning Methods and Applications in Radiology and Nuclear Medicine (Co-Sponsored with the CMIIT)*

2018 SNMMI Annual Meeting CE Sessions

- Advances in Simultaneous PET/MRI Imaging and Clinical Applications
- Motion Correction Strategies in PET
- Measurement of Absolute Myocardial Blood Flow, Part I: Optimization and Implementation of PET Evaluation
(Joint session with CVC)
- Measurement of Absolute Myocardial Blood Flow, Part II: Current State of Dynamic SPECT
(Joint session with CVC)
- Crystals to Quantification to QC: A Field Guide to SPECT and PET Instrumentation
- Quantitative Imaging for Dosimetry in Radionuclide Imaging and Therapy
(Co-sponsored with Therapy CoE)
- Edward J. Hoffman Award Lecture: Quantitative SPECT: From Impossibility to Practice

Action Items in Progress/Pending:

- CalC name change
Discussion at Committee on Councils and Centers at 2018 Annual Meeting
Resolution for consideration by SNMMI HOD at 2018 Annual Meeting
- Preparation for 2019 Mid-Winter and Annual Meeting
- 2018 CalC Awards:
 - Edward J. Hoffman Award Lecture
To be presented by awardee Eric C. Frey, PhD
 - Tracy Lynn Faber Award
To be presented to Greta Seng Peng Mok, PhD
 - CalC Young Investigator Awards
YIA Symposium to be held at 2018 Annual Meeting

Action Items Completed: See above items.

Recommendations/Questions for the Board of Directors: N/A

Other Comments: N/A