

## NEWSLETTER

**March 2024**

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### **President's Message**



It has been a busy Fall and Winter and as we head into Spring, there are a few items that I would like to share with you. First, I would like to welcome the new PIDSC board members: Dr. Adam Alessio, Council Vice-President Elect; Dr. Jing Tang, Council Secretary; Dr. Spencer Bowen, At-Large Board Member; Dr. Abhinav Jha, At-Large Board Member; and Dr. Elena Maria Zannoni. In addition, Dr. Joe Steiner started his two-year PIDSC internship this Summer. Please congratulate them and thank them for their service.

PIDSC is a community where scientists, physicians, and technologists can work together for the advancement of science, medicine, and individual's careers. Anyone interested in physics, instrumentation, and the data sciences is encouraged to join SNMMI and PIDSC. PIDSC wants to promote involvement of its membership. There are many ways to participate. This past Fall, PIDSC sponsored two excellent webinars: "Tutorials for Simulation, Data Analysis, and Reconstruction" and "Career Panel with Women Leaders" presented on Sept 26th and 28th, respectively. These webinars will be available for On-Demand viewing via the SNMMI website soon. In addition, PIDSC members continue to have leading roles in the PET Raw Data Standardization working group, SNMMI's AI Task Force (e.g., SNMMI AI Challenge 2023), and will begin work on a guidelines paper for Lu-177 imaging using ring-based CZT SPECT/CT scanners. If you have interest in being part of this effort, please reach out to myself or another PIDSC board member.

PIDSC is also involved in the organization of the CE sessions for the Annual and Mid-Winter meetings. SNMMI leadership is looking to reimagine the Annual Meeting and there will be some changes in the Scientific and Continuing Education Program for the 2024 meeting. There will be more coordination in the organization of sessions and elimination of overlapping content at the meeting. We are still in the planning stages so if you have an idea for a CE session for next year's Annual Meeting, please keep an eye out for the PIDSC announcement calling for CE session proposals. This should happen soon.

Again, PIDSC seeks to provide value to its membership and opportunities for participation and growth. If you have an idea that you think would benefit the PIDSC community please contact me, and PIDSC will meet with you to see how we can best support your ideas. Finally, to help trainees get more engaged with our community, SNMMI offers free memberships to residents, students, and fellows. If you have any

trainees in your laboratory, please encourage them to become SNMMI members and sign up to be a member of PIDSC.

Best,

Robert S. Miyaoka, PhD

## 2023 Mid-Winter Meeting PIDSC Sponsored Sessions

After a COVID-related all-virtual format for a few years, the 2023 Mid-Winter Meeting was held in an in-person format. PIDSC sponsored one CE session for the meeting:

- ❑ **Basics of Quantitative SPECT and PET**  
January 28, 2023, from 10:30 am to 12:30 pm  
Organizers and speakers: Chi Liu, Robert Miyaoka, and Youngho Seo

## 2023 Annual Meeting PIDSC Sponsored Sessions

The 2023 SNMMI Annual Meeting was a hybrid meeting. The PIDSC was pleased to sponsor the following sessions as part of the 2023 SNMMI Annual Meeting program, including a set of integrated sessions – a concept introduced in 2022. The PIDSC continuing education sessions are listed below:

- ❑ CE05- AI In Nuclear Medicine - The Road Towards Clinical Translation  
Saturday, June 24, 2:00 pm CDT
- ❑ CE20-Total Body PET Imaging - From Physics to Applications  
Sunday, June 25, 3:30 pm CDT
- ❑ CE26-PIDSC Awards Presentation and Business Meeting  
Monday, June 26, 10:00 am CDT
- ❑ CE33- Debating the Emerging Role of Artificial Intelligence in NM (AI Task Force Session)  
Monday, June 26, 12:45 pm CDT
- ❑ CE51- Multi-Isotope Imaging for Radiopharmaceutical Therapy and Multifunctional Theranostics  
Tuesday, June 27, 2:00 pm CDT
- ❑ CE58- AI for NM: Enabling Big Data Analytics and Personalized Therapy (AI Task Force Session)  
Tuesday, June 27, 3:30 pm CDT
- ❑ PIDSC Basic Science Summary Session  
Monday, June 26, 2:15 pm CDT

## 2023 Edward Hoffman Memorial Award

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 of the next generation of scientists. Learn more about the Hoffman Award [HERE](#)

The 2023 Edward Hoffman Award was presented to Ronald Boellaard, PhD, Full Professor and Medical Physicist at the Amsterdam UMC. He received the award “for his contributions to PET data analysis and scanner harmonization and his unwavering dedication to bringing PET data quantification into routine clinical use.”

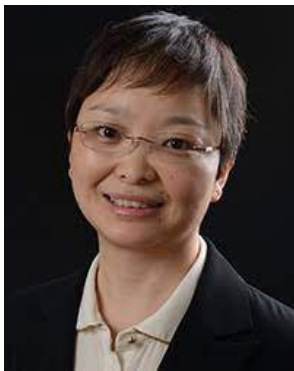


Ronald Boellaard, PhD, recipient of the 2023 Ed Hoffman Award

### 2023 Tracy Lynn Faber Memorial Award

This 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. Learn more about the Faber Award [HERE](#).

The 2023 Tracy Lynn Faber Memorial Award was presented to Qiu Huang, PhD. Dr. Huang is an Associate Professor at the School of Biomedical Engineering in Shanghai Jiao Tong University. She received the award “for her contributions to SPECT and PET reconstruction algorithm development and for promoting and mentoring women in medical imaging sciences.”



Qiu Huang, PhD, recipient of the 2023 Tracy Lynn Faber Award

### 2023 PIDSC Young Investigator Awards

The PIDSC Young Investigator Awards (YIA) are presented to the authors of the best scientific abstracts on the topic of instrumentation, algorithm, or data analysis in nuclear medicine by young investigators. These awards were announced during the 2023 SNMMI Annual Meeting. Congratulations to everyone who have participated and especially to the following 2023 YIA winners.

#### 1st Place

**Tiantian Li:** High resolution image reconstruction and resolution modeling: first human scan with the NeuroEXPLORER

## 2nd Place

**Vibha Balaji:** Graph-based explanations of tau forecasting for Alzheimer's disease using graph neural networks

## 3rd Place

**Zitong Yu:** Task-based evaluation of a scatter projection and deep learning-based transmission-less attenuation-compensation method with clinical data

## Honorable Mentions (in alphabetical order of first names):

**Sangjin Bae:** Generalizing emission image denoising neural networks through score-based approach

**Tzu-An Song:** Self-supervised PET image denoising using a neighbor-to-neighbor network

**Zhonghua Kuang:** Performance evaluation of SIAT bPET: an MRI compatible brain PET insert

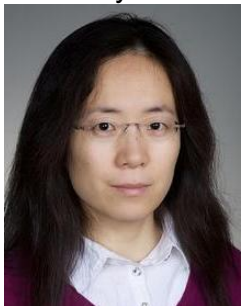
## 2023 PIDSC Election Results

Congratulations to these newly elected PIDSC Officers and Board Members!

Adam Alessio, PhD  
Vice President-Elect



Jing Tang, PhD  
Secretary



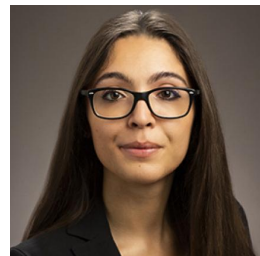
Spencer Bowen, PhD  
Board Member



Abhinav Jha, PhD  
Board Member



Elena Maria Zannoni, PhD  
Board Member



## 2024 SNMMI Mid-Winter Meeting

The 2024 SNMMI Mid-Winter meeting was held February 1-3, 2024, in-person in Orlando, FL at the Hilton Orlando Lake Buena Vista Lake Buena Vista. More than 750 nuclear medicine professionals and industry partners from around the world gathered for this meeting, which included a radiopharmaceutical therapy specialty track, and a general nuclear medicine track. This year, PIDSC sponsored one continuing education session together with the Academic Council and the AI Task Force:

### **Unleashing the Potential: AI's Role in Revolutionizing Clinical and Non-Clinical Tasks in Nuclear Medicine**

February 3, 2024, from 4-6 pm

Organizers and speakers: Robert Miyaoka, Joyita Dutta, Gholam Berenji, and Justin Peacock.

Many of the PIDSC members were also speaking in various other sessions at the meeting.

## PIDSC Track for 2024 SNMMI Annual Meeting

At the upcoming SNMMI Annual Meeting, there will be four PIDSC abstract submission categories which reflect our core areas of expertise: Data Analysis & Management, Image Generation, Instrumentation, and Data Sciences.

The PIDSC plays an integral role in the abstract review process by selecting the PIDSC track Vice-Chairs and Sub-Chairs, subject to approval by the Scientific Program Committee. The Vice-Chairs and Sub-Chairs manage the review process, including the selection of reviewers from among the council members. The Sub-Chairs are responsible for building the oral sessions and for presenting the highlights in their category area in the Basic Science Summary Session devoted to the PIDSC track. The council appreciates the volunteer work of the chairs and reviewers to help make the annual meeting a success. For the 2023 SNMMI annual meeting, the PIDSC track vice chairs are Osama Mawlawi and Glenn Wells. The Sub-Chairs for the various submission categories within PIDSC are:

Adam Kesner, Sub-Chair, Data Analysis & Management  
Chi Liu, Sub-Chair, Image Generation  
Ling-Jian Meng, Sub-Chair, Instrumentation;  
Joyita Dutta, Sub-Chair, Data Sciences  
Tyler Bradshaw, Sub-Chair, Young Investigator Award

## 2024 Annual Meeting PIDSC Sponsored CE Sessions

The SNMMI recently introduced Continuing Education (CE) Vice-Chair roles with Robert Miyaoka serving as the CE Vice-Chair for PIDSC.

PIDSC has the following proposals tentatively approved by the SNMMI for the 2024 Annual Meeting. The session organizers will reach out to council members and invite speakers to develop and finalize the sessions. Please stay tuned.

### **PIDSC Intensive:**

Saturday, June 8, 2024

8:30 AM – 12:30 PM

Medical Foundation Models (e.g., ChatGPT) for Nuclear Medicine and Molecular Imaging

Organizers: Quanzheng Li and Arman Rahmim

### **PIDSC Continuing Education:**

Saturday, June 8, 2024

3:30 – 4:45 PM

Big Data in Dosimetry

Organizers: Babak Saboury and Adam Kesner

(Sponsored by PIDSC, AI Task Force, and Dosimetry Task Force)

Sunday, June 9, 2024

3:30 – 4:45 PM

MIRD Award Session Radiobiology and Immunobiology of Radiopharmaceutical Therapy

Organizer: Richard Laforest

(Sponsored by MIRD)

Sunday, June 9, 2024

5:00 – 6:15 PM

Physics, Instrumentation, and Data Sciences Basic Science Summary Session

Monday, June 10, 2024

10:00 – 11:15 AM

PIDSC Award Session

Organizer: Chi Liu and Robert Miyaoka

Monday, June 10, 2024

12:45 – 2:00 PM

Radiomics Challenge Results Session

Organizer: Tyler Bradshaw

(Sponsored by AI Task Force)

Tuesday, June 12, 2024

2:00 – 3:15 PM

Practical Imaging/Dosimetry for Lu-177

Organizers: Yuni Dewaraja and Robert Miyaoka

(Sponsored by PIDSC and Dosimetry Task Force)

## 2021- 2023 PIDSC Board of Directors

Robert S. Miyaoka, PhD	Council President
Joyita Dutta, PhD	Council Vice President
Adam Alessio	Council Vice President-Elect
Jing Tang, PhD	Council Secretary
Ciprian Catana, MD, PhD	Council Treasurer
Chi Liu, PhD	Council Immediate Past President
Shiva Abbaszadeh, PhD	Council Board of Directors
Spencer L. Bowen, PhD	Council Board of Directors
Abhinav K. Jha, PhD	Council Board of Directors
Nicolas A. Karakatsanis, PhD	Council Board of Directors
Phillip Kuo, MD	Council Board of Directors
Elena Maria Zannoni, PhD	Council Board of Directors
Todd E. Peterson, PhD, FSNMMI	Board Liaison
Joseph R. Steiner, PhD, DABR	Intern

You can follow the activities and announcements of PIDSC [HERE](#)