

## **Radiopharmaceutical Sciences Council FY22 Business Plan –June 2021 Value Initiative 2.0**

The Radiopharmaceutical Sciences Council (RPSC) is a group within The Society of Nuclear Medicine and Molecular Imaging (SNMMI) dedicated to the interchange of scientific and medical information, ideas and knowledge among Society members who have an interest in the radiopharmaceutical sciences.

### **SNMMI Value Initiative 2.0 – Engagement of Councils and Centers of Excellence**

In 2018, SNMMI launched its Value Initiative – a comprehensive strategic plan to advance the crucial role of nuclear medicine and molecular imaging in patient care and science and discovery. The next step will become SNMMI's Value Initiative 2.0. As part of Value Initiative 2.0, SNMMI will continue to adjust our organization to the changing health care environment. Value Initiative 2.0 will also engage as many SNMMI members as possible through the work of various committees, working groups, SNMMI councils and centers of excellences and the SNMMI chapters.

As part of this inward focusing effort, councils and centers of excellence will be participating in Domain conference calls and working directly with the chairs from the six (6) domains to address the opportunities and develop strategies to meet them.

**As a council, the Radiopharmaceutical Sciences Council will be primarily involved in the following domains; Research and Discovery, Promoting and Recognizing Excellence, Outreach and Workforce Pipeline. However, the council may be asked to or request to be involved in other domains as issues or opportunities arise.**

### **Goals and Programs for FY2022**

The RPSC continues to demonstrate its resilience, vitality, and activity in the tradition of service, innovation, and support of radiopharmaceutical sciences. The council will provide a forum for members with similar interests; provide expertise in the field of interest to the membership; foster education in research and application of radiopharmaceutical sciences; provide outreach to other professionals and organizations; nurture new membership into the Society and the Council and serve as a resource to SNMMI Leadership. Specific goals and objectives include:

#### **1. Membership**

The Radiopharmaceutical Sciences Council will continue its efforts to increase membership and make membership in the council more appealing to a wider sector of the SNMMI. The RPSC plans to identify member needs and work on outreach efforts to scientists, the Center for Molecular Imaging Innovation and Translation, the Young Professionals Committee, as well as other professional groups in the field of radiopharmaceutical sciences. We plan to encourage growth in our membership to pre-pandemic levels through continued presentation of webinars and networking opportunities for council membership.

#### **2. Communication**

The Council will work on increasing communication among members via email announcements, LinkedIn page and shorter, more frequent newsletter updates. We plan to continue discussions for a joint newsletter with CMIIT addressing our overlapping interests. The RPSC is also trying to enhance our members-only website as a benefit of membership. The RPSC board of directors will continue to hold conference calls and meetings throughout the year.

#### **3. Educational Programs**

The RPSC will continue to sponsor educational sessions at both the SNMMI Mid-Winter and Annual Meetings. These programs will serve as an opportunity to promote the Society and the Council as the leader in providing educational programs in radiopharmacy and radiopharmaceutical sciences as well as increasing awareness of the development and uses of radionuclides within the medical research community. These programs will also keep Society members abreast of new developments within the field.

- a. 2022 Mid-Winter Meeting – The RPSC plans to submit a CE session proposal for the 2022 SNMMI Annual Meeting in Orlando, FL, and the specific topic is still under discussion.
- b. 2022 Annual Meeting – The RPSC plans to submit proposals for a categorical session, and organize assigned CE sessions for the 2022 SNMMI Annual Meeting in Vancouver, British Columbia.
- c. Radiopharmacy/Radiochemistry Task Force - The RPSC plans to continue our close ties to this Task Force by continuing to jointly plan informative webinars, networking opportunities, and informal gatherings to share timely discussions.
- d. Promoting Quality, Value and Safety for Radiopharmaceuticals – A subcommittee of the RPSC continues to work on a Qualified Systems Personnel Training Program (QSPTP). The program is slated to start this year and the rollout activities will be a major focus of the RPSC education program effort in the coming year. With a total of 50 lectures, onsite training activities and certifications available, ensuring that the program is broadly advertised is essential to success. Overall, the intent of the QSPTP is to create a certification mechanism revolving around classwork and didactic training that seeks to:
  - Provide theoretical knowledge and practical experience needed to assume responsibility for production, quality control and release of radiopharmaceuticals.
  - Cross-training chemists and radiopharmacists
  - Provide training in manufacturing and quality assurance of radiopharmaceuticals for both the academic and commercial settings
  - Training to understand synthesis and pharmaceutical formulation of radiopharmaceuticals—PET, SPECT and radiotherapeutics
  - Understand compliance with regulatory requirements associated with radiopharmaceuticals manufacturing
  - Research applications including IND and RDRC processes

#### 4. **Scientific Interaction and Outreach Efforts**

The RPSC is committed to promoting networking and facilitating the exchange of scientific ideas beyond educational offerings. In addition to continuing our successful programs, the BOD of the RPSC plans to accelerate efforts to collaborate with other societies and organizations with similar foci and members in common with our council.

- a. Mixer/Poster Session – The RPSC, in collaboration with the YPC and CMIIT, plans to continue to offer the Poster Mixer at the SNMMI Annual Meeting in order to further encourage scientific interaction with colleagues. The timing of this event is under consideration for the 2022 Annual meeting.
- b. Outreach to Physicians and Technologists – As part of its effort to reach out to the entire radiopharmaceutical sciences field, the RPSC feels that it is important to represent and support the needs of physicians and technologists working within the field. As such, the RPSC would like to continue to contribute Continuing Education sessions at future SNMMI meetings and develop webinars that bring together basic scientists and clinicians.
- c. Outreach to Other Groups and Individuals – The RPSC will continue ongoing collaborative efforts with CMIIT and the EANM Radiopharmacy Council. The RPSC co-sponsors educational sessions with other SNMMI Councils and Centers at the SNMMI Mid-Winter and Annual Meetings. The RPSC will continue to include Council members volunteering to present educational seminars at other society meetings, such as APhA, ACS, and ISRS. Leadership will help to identify individuals who are recognized as important leaders in the field who are not currently members of the RPSC and encourage them to join. This interaction will help to identify activities that the RPSC can develop to enhance and increase membership, particularly among radiopharmacists.

## 5. Awards

Over the last fiscal year, the RPSC began work on the establishment of two new awards highlighting contributions in thus far unrecognized areas of the radiopharmaceutical sciences community. In FY2022, the RPSC plans to define, approve, and take nominations for these awards to be given at the 2022 Annual Meeting.

- a. Sally W. Schwarz Award for Outstanding Contribution in Radiopharmacy – The RPSC will develop an award in honor of past RPSC and SNMMI President, Sally W. Schwarz, to annually commend an outstanding individual in radiopharmacy. Nominees will be considered with contributions in the form of radiopharmaceutical development, production and/or translation of radiopharmaceuticals for nuclear medicine and molecular imaging, significant contributions to the regulatory oversight of radiopharmaceutical supply and administration, and/or in the mentoring and education of the next generation of radiopharmacists. The award carries with it an award of \$1,000 paid for within the RPSC budget.
- b. Mid-career Award in Radiopharmaceutical Sciences – While the exact description and award criteria are still in preparation, the RPSC plans to create an award that annually recognizes an individual at the mid-career stage who has made an exemplary impact on the field of radiopharmaceutical sciences.

## 6. RPSC Board of Directors Retreat

The RPSC will plan an RPSC Retreat for Spring 2022, pending available funding, that will bring together the entire BOD for a one-day, in-person meeting to cover council business and planning for the annual meeting as well as provide networking opportunities for board members.

## 7. RPSC Intern Program

The RPSC will continue to support the SNMMI Internship program for 2021-2022. The RPSC intern for this term is Alexandra Dumond, PhD., and she will be mentored by Amy Vavere, PhD. She plans to select her project in the near future, and her current interests lie in collaboration with other councils and organizations and also participating in organizing a CE with possible topic being professional skills or A Day in the Life across the varied roles in nuclear medicine.

## Proposed FY22 Budget and Resource Requirements

### 1. Summary of Financial Needs

The attached FY2022 budget summarizes the total resources needed to support the goals set forth in the business plan.

### 2. Resource Requirements

Ongoing SNMMI staff support, materials, technology and marketing support.

## Radiopharmaceutical Sciences Council Background Overview

### Mission

The overall mission of the RPSC is to:

- Provide a forum for members with similar interests
- Provide expertise in the fields of interest to the membership
- Foster education in research and the application of molecular imaging and the radiopharmaceutical sciences
- Provide outreach to other professionals and organizations
- Nurture new membership into the Society and the Council
- Provide recognition for professionals who have made outstanding contributions in the fields encompassed by molecular imaging and radiopharmaceutical sciences
- Provide continuing education credits for radiopharmacists
- Serve as a resource to SNMMI leadership

### Leadership

#### Officers

Amy Vavere, PhD, Council President	2021-2022
Mike Nickels, PhD, Council Vice President	2021-2022
Kishore Pillarsetty, PhD, Council Vice President-Elect	2021-2022
Ephraim Parent, PhD, Council Secretary	2020-2022
Pedro Brugarolas, PhD, Council Treasurer	2021-2023
Steven Liang, PhD, Council Immediate Past President	2021-2022

#### Board Members

*Alan Packard, PhD	2019-2022
Michelle James, PhD	2020-2022
Kai Chen, PhD	2020-2022
Zhengxin (Jason) Cai, PhD	2021-2023
Adam J. Rosenberg, PhD	2021-2023
* Board liaison	

#### Intern

Alexandra Dumond, PhD	2021-2023
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### Current Status

#### 1. Financial

As of June 1, 2021, the RPSC had revenue of \$26,895, from member dues, ERF grants and carryover from FY2021. Projected FY2021 expenses \$2,177. The RPSC & CMIIT Poster Mixer sponsorships carried over for the 2022 SNMMI Annual Meeting Poster Mixer is currently at \$7,500.

#### 2. Membership

As of July 1, 2021, the Radiopharmaceutical Sciences Council has 1040 total members, including 412 paid members, and 628 in-training members with complimentary membership.

<u>Year</u>	<u>Paid Membership Count</u>
2020	542
2019	564
2018	595
2017	563

### 3. Member Benefits

- RPSC Newsletters
- \$20 Discount off Fee to Categorical Seminar
- Contributions to Mid-Winter Educational Symposia
- Annual Meeting Categorical Seminar and Continuing Education Program
- Annual Meeting Basic Science Summary Session
- Annual Meeting Poster Mixer
- Annual sponsor of the Berson-Yalow award
- Annual sponsor of the Michael J. Welch award
- Annual sponsor of the Michael J. Welch Post-Doctoral Travel Grant
- Young Investigator Awards
- LinkedIn Group
- Website
- Advocacy to SNMMI

### Accomplishments for FY2021

#### 1. Communication

The RPSC Board of Directors (BOD) holds conference calls throughout the year to discuss important matters related to the field of radiopharmaceutical sciences and the Council. The RPSC BOD held a very productive virtual retreat in April 2021 to discuss several items including: potential new RPSC-sponsored awards, the Radiopharmaceutical Scientist Qualified Person Program, RPSC council renewal, upcoming Drink & Think topics in conjunction with the Radiochemistry/Radiopharmacy Task Force, collaborations with other societies, proposed education sessions and awards for the 2021 SNMMI meetings, RPSC communications, the new intern project(s), and RPSC board elections.

#### 2. Education

During the past year, the RPSC leadership and members actively participated in the organization and presentation of educational seminars at the 2021 Mid-Winter Virtual Meeting and the Annual Virtual Meeting. These programs serve as an opportunity to promote the SNMMI and the RPSC as the leader in providing educational programs in radiopharmaceutical sciences with a focus on chemistry and increase awareness of the development and uses of radionuclides among the medical community. These programs will also keep SNMMI members abreast of new developments within the field.

- a. 2021 SNMMI Midwinter Meeting (virtual) – RPSC sponsored a CE session entitled *From First-in-Human to Reimbursement: A Practical Guide to PET Tracer Development* during which 3 experts in the field presented on all aspects of translating a PET tracer from bench to bedside in today's highly regulated and controlled world.
- b. 2021 SNMMI Annual Meeting (virtual)
  - i. **Categorical Session**  
The RPSC presented a full-day categorical session entitled *Synthesis of PET Radiopharmaceuticals: State-of-the-art and Future Prospects* with several speakers presenting on various types of tracers including C-11 and F-18 labeling, drug and tracer design, and peptide and antibody radiolabeling. The event was hosted by Peter Scott, PhD and Amy Vavere, PhD.
  - ii. **Basic Science Summary Session**  
The Radiopharmaceutical Sciences Council with the Center for Molecular Imaging Innovation and Translation (CMIIT) sponsored a Basic Science Summary Session at the 2021 Annual Meeting. Three speakers presented highlights from the annual meeting in Radiochemistry (Pedro Brugarolas PhD), Oncology (Monika Shokeen, PhD), and Neurology, Cardiology, Inflammation, and Other Abstracts (Michelle James, PhD). This session was moderated by Peter Scott, PhD and Cathy Cutler, PhD.

- ii. **Continuing Education Sessions:**
- Michael J. Welch Award and Lectureship: presented by Victor Pike, PhD with the lecture entitled *PET Radiochemistry: A Personal Perspective from Over Four Decades*.
- iii. **Scientific Sessions:**
- RPSC Young Investigator Award Session
  - New Tools for Optimizing Theranostic Implementations
  - High Impact Radiochemistry: Techniques, Tracers, and Targets
- c. 2021 Awards
- i. **Young Investigator Awards** - Continuing with tradition, the RPSC presented Young Investigator Awards to three promising young scientists, an effort to encourage participation in the Annual Meeting by our talented trainees and new investigators. The top seven radiopharmaceutical chemistry young investigator abstracts, determined by review score, were presented in this symposium. The RPSC leadership scored the presentations, with the top three presentations receiving an honorarium and a commemorative certificate. The young investigator awards are funded from a grant from the Education and Research Foundation for Nuclear Medicine and Molecular Imaging.
- 1st Place** - *Radiosynthesis and evaluation of (R)- and (S)-<sup>18</sup>F-OF-NB1 for imaging the GluN2B subunits of the NMDA receptor in non-human primates* presented by Hazem Ahmed, PhD; Institute of Pharmaceutical Sciences ETH Zurich, Switzerland
- 2nd Place** - *Evaluation of CB2 PET Radioligand <sup>18</sup>F RoSMA-18-d6 in Non-Human Primates and Experimental Autoimmune Encephalomyelitis* presented by Ahmed Haider; Massachusetts General Hospital and Harvard Medical School Boston MA United States
- 3rd Place** - *Synthesis and preclinical characterization of a metabolically stable SV2A PET imaging probe: [<sup>18</sup>F]SDM-16* presented by Chao Zheng; Yale School of Medicine New Haven CT United States
- ii. **2021 Berson-Yalow Award** – This year’s award was presented to Ashley Cherie McKnight for her abstract entitled *In vitro evaluation of [<sup>3</sup>H]CPPC for imaging CSF-1R*. This award honors investigators who submit the most original scientific abstracts and make the most significant contributions to basic or clinical radioassay. This award is funded by the RPSC and is presented during the Basic Science Summary Session at the Annual meeting.
- iii. **2021 Michael J. Welch Award** – This award was established in 2009, named after Dr. Michael J. Welch, PhD. The recipient of this prestigious award for 2021 was Victor Pike, PhD. The funding for this award is provided by the Michael J. Welch Foundation.
- iv. **2020 Michael J. Welch Post-doctoral travel grant** – This award was presented to Jimmy Jakobsson, PhD for his abstract entitled, *Rapid and mild synthesis of unsymmetrical [<sup>11</sup>C]ureas from [<sup>11</sup>C]carbonyl difluoride and amines*. The funding for this award is provided by the Michael J. Welch Foundation.
- d. Drink & Thinks with Radiopharmacy/Radiochemistry Task Force – Several well-attended webinars were held throughout this past year including “Cu-64: Practical Considerations and Future Implications” on March 8th, 2021 and the “RPSC/CMIIT Poster Mixer Highlights” held during the virtual SNMMI Annual Meeting
- e. RPSC Intern Program – The 2019-2021 Intern, Jessica Comstock, PharmD, BNCP continued to run the SNMMI RPSC social media accounts promoting education and Council opportunities as well as member successes. In addition, she completed the joint project with the Clinical Trials

Network (CTN) intern. This project updated the CTN Database with production only, imaging only, and production and imaging site information and logistics for the nation.