

## Spring 2015 – Election Edition

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### President's Message

*Neil A. Petry, MS, RPh, BCNP*



As my term as President of the Radiopharmaceutical Sciences Council (RPSC) draws to a close and the Society of Nuclear Medicine and Molecular Imaging 62<sup>nd</sup> annual meeting in Baltimore approaches, I would like to take this opportunity to thank you all for your continued support and active participation in the operation of the RPSC during the last year. Also, I would like to thank our Annual Poster Mixer event sponsors who contributed generously in order to make this event a success. It has been a tremendous honor to serve as President of this Council. I am looking forward to continuing to work with Suzanne Lapi, RPSC incoming President, and Shawn Chen, incoming Vice-President for the term 2015-2016, as well as the other RPSC board members and the RPSC membership at large, during the coming years. I can assure you our RPSC leadership team will continue to be highly effective in responding to ever-changing scientific focuses and the challenging regulatory environment through the help and support provided by our membership.

This year, RPSC made another minor modification to a track category name, changing from “Novel Nonradioactive Probes” to “Novel Multimodality and Nonradioactive Probes.” It was felt that adding the word “multimodality” would increase the pool of submitted abstracts for this category and thus increase the quality and interest in these topical sessions.

Just recently, at the spring SNMMI BOD meeting, Sally Schwarz represented the RPSC interests in and successfully gained supporting approval for the development of a Qualified Person (QP) Training Program in partnership with the Clinical Trials Network (CTN). This training program will facilitate the training and certification of individuals who wish to document their expertise in proving quality assurance services associated with the cGMP compliant manufacturing of PET drugs.

At the annual meeting this June in Baltimore, MD, the RPSC will present several prestigious awards to recognize scientific contributions from members in the field of radiopharmaceutical sciences including:

#### **Michael J. Welch, PhD Award**

The recipient of this award is Martin W. Brechbiel, PhD, of the National Institutes of Health (NIH) in Bethesda, MD.

### **Michael J. Welch, PhD Postdoctoral Travel Grant Award**

The recipient of this award is Zhibo Liu, PhD, of the National Institutes of Health (NIH) in Bethesda, MD.

### **Berson-Yalow Award**

The recipient of this award is Matthias Eder, PhD, Division of Radiopharmaceutical Chemistry, German Cancer Research Center, Heidelberg, Germany, for the winning abstract entitled, "PSMA-617 – A Novel Theranostic PSMA Inhibitor for both Diagnosis and Endoradiotherapy of Prostate Cancer." This award is presented for the most original scientific contribution that impacts basic or clinical radioassay.

### **Young Investigator Awards (YIAs)**

The RPSC YIAs are reserved for the best scientific abstracts on radiopharmaceutical chemistry in nuclear medicine by young investigators. First, second, and third place awards will be given following the abstract presentations at the 2015 SNMMI annual meeting in Baltimore, MD.

Once again the RPSC and CMIIT are co-sponsoring the highly popular Poster Mixer Event at the SNMMI annual meeting in Baltimore, MD. This poster mixer will encourage poster attendance and stimulation of RPSC membership. A big thank you goes out to our wonderful sponsors: Abbvie; Advion; Blackthorn Associates, LLC; Celectar Biosciences; e-Century Publishing Corp.; Gollman Group; Becquerel & Sievert; GroundFluor Pharmaceuticals; inviCRO, LLC; Ionetix; isoSolutions Marketing & Management, Inc.; MedChem Imaging, LLC; Navidea; Promega Corp.; TEMA Sinergie; TRACON Pharmaceuticals, Inc.; and UPPI.

I am also pleased to announce the 2015 election for new officers (vice president-elect and secretary) and new members of the RPSC Board of Directors. Beginning on the next page, you will find biographical sketches and statements from RPSC members who have accepted nominations and volunteered their time to participate in this year's election. Please read the candidate information and select the individuals whom you feel will best represent your interests in council matters. Write-in candidates are permitted.

**[VOTE ONLINE BY MAY 7](#)**

If you are attending the SNMMI Annual Meeting in Baltimore this June, you will see the diversity of scientific and educational offerings. **Please browse the [SNMMI Annual Meeting website](#)** to see the full list of RPSC-sponsored programs and other sessions of interest. As a RPSC member, you are invited and highly encouraged to participate in the RPSC business meeting on Sunday, June 7 from 2:00 pm to 2:30 pm in Room 308 at the Baltimore Convention Center. I am looking forward to seeing you there.

## Vice President-Elect

### Weibo Cai, PhD



Weibo Cai is an Associate Professor of Radiology, Medical Physics, and Biomedical Engineering at the University of Wisconsin - Madison. He received a BS degree in Chemistry from Nanjing University, China (1995) and a PhD degree in Chemistry from the University of California, San Diego (2004). Between 2005 and 2008, Dr. Cai did his post-doctoral research in the laboratory of Prof. Xiaoyuan (Shawn) Chen at the Molecular Imaging Program at Stanford (MIPS). In February 2008, Dr. Cai joined the University of Wisconsin - Madison as a Biomedical Engineering Cluster Hire, and was promoted to Associate Professor with Tenure in 2014.

Dr. Cai's research at UW-Madison (<http://mi.wisc.edu/>) is primarily focused on molecular imaging and nanotechnology with three major thrusts: 1) development of multimodality molecular imaging agents; 2) nanotechnology and its biomedical applications; and 3) molecular therapy of cancer. The imaging techniques routinely used in his research include positron emission tomography (PET), bioluminescence, fluorescence, photoacoustic tomography (PAT), magnetic resonance imaging (MRI), ultrasound, and computed tomography.

Dr. Cai has authored >160 peer-reviewed articles, >20 book chapters, and >180 conference abstracts. His publications have been cited >9,000 times with an [H-index of >47](#). He has edited 2 books (with 1 more book in the process), guest-edited 8 special topic issues for various scientific journals, and given >120 talks. Dr. Cai has received many awards, including the Society of Nuclear Medicine and Molecular Imaging (SNMMI) Benedict Cassen Post-Doctoral Fellowship (2006-2008), SNMMI Young Professionals Committee Best Basic Science Award (2007), the European Association of Nuclear Medicine (EANM) Springer Prize (2011 & 2013), EANM Eckert & Ziegler Abstract Award (2012), American Cancer Society Research Scholar (2013-2017), Siemens Novel Application Image of the Year (2nd Place, 2013), NIH R01 (2013), among many others. Dr. Cai has served on the Editorial Board of >20 scientific journals, performed peer review for >100 journals, and participated in many grant review panels (NIH, Cancer Prevention and Research Institute of Texas [CPRIT], Susan G. Komen, Prostate Cancer Canada, many European grants, etc.). He is currently the Editor-in-Chief of the American Journal of Nuclear Medicine and Molecular Imaging (<http://www.ajnmml.us>), an open-access journal that was launched in 2011 and currently fully indexed in PubMed and PubMed Central.

Dr. Cai has been an active member of several scientific societies such as SNMMI and EANM, and he considers SNMMI as his home society. He is fully committed to help the RPSC move into the new year with new goals and initiatives, advance the field of radiopharmaceutical sciences and molecular imaging, train the next generation of radiopharmaceutical and molecular imaging scientists, and recruit new members to RPSC. Regarding training of next generation scientists, Dr. Cai's trainees at UW - Madison (vast majority are RPSC members) have received >30 awards, including Post-doctoral Fellowships from the Department of Defense and Susan G. Komen, 2012 Berson-Yalow Award from SNMMI, several Young Investigator Awards from SNMMI, and more than a dozen Travel Awards to SNMMI Annual Meetings and World Molecular Imaging Congresses.

During the last 2 years as a RPSC Board of Director, Dr. Cai has secured several industrial sponsors (\$2500 each year) for the increasingly popular RPSC/CMIIT Poster Mixer that all RPSC/CMIIT members have the privilege to enjoy. Dr. Cai has actively participated in SNMMI Annual meetings such as organizing and moderating several Continuing Education sessions, regularly attended RPSC conference calls, and served on various other SNMMI committees (Committee on Awards and Committee on Young Professionals). Dr. Cai has also attended EANM Annual Congresses every year recently and actively reached out to the leadership teams and various councils of EANM.

All these experiences and scientific/industrial relationships will be tremendously beneficial to Dr. Cai's future service to the RPSC members, if elected as the Vice President-Elect.

## Zhen Cheng, PhD



Dr. Zhen Cheng received a B.S. degree in Chemistry from Sichuan University in China in 1994 and a M.S. degree in Isotope Technology and Radiopharmaceutical Chemistry from China Institute of Atomic Energy in 1997. Then he studied peptide based radiopharmaceuticals and obtained his Ph.D. in Radiopharmaceutical Chemistry from the University of Missouri-Columbia under the mentorship of Drs. Silvia Jurisson and Thomas Quinn in 2001. From 2001 to 2003, he completed his postdoctoral work under the supervision of Drs. Alun Jones and Ashfaq Mahmood at Harvard Medical School. Following that he joined Dr. Sanjiv Sam Gambhir's group at Stanford University as a Research Scientist to study multimodality imaging probes and techniques, and he became an Assistant Professor in 2007 and Associate Professor in 2014 in the Radiology Department at Stanford.

Dr. Cheng is the Director the Cancer Molecular Imaging Chemistry Laboratory of the Molecular Imaging Program at Stanford (MIPS). His research interest has focused on developing novel molecular imaging probes and techniques for non-invasive detection of cancer and other diseases such as cardiovascular and neurologic diseases at early stages so that they can either be cured or transformed into a treatable state. A variety of molecular platforms such as small molecules, peptides, proteins and nanoparticles have been studied in his laboratory for molecular imaging. His work has led to promising imaging techniques and molecular probes that have high clinical translational ability for detection of melanoma metastasis and cancers expressing biomarkers. Dr. Cheng has published over 160 research articles on the topic of molecular imaging in peer reviewed journals. His research has been funded by a number of funding agencies and foundations including National Institute of Health, Department of Defense, Department of Energy, California Breast Cancer Research Program and Melanoma Research Alliance.

Dr. Cheng served as a Board Director of the Radiopharmaceutical Sciences Council (RPSC) in the Society of Nuclear Medicine and Molecular Imaging from 2012 to 2014, and he has organized symposiums and continued education sessions in a number of society meetings. He has been an active member of several professional societies including the Society of Nuclear Medicine and Molecular Imaging, the World Molecular Imaging Society, the Society of Radiopharmaceutical Sciences, and the American Chemical Society (Division of Medicinal Chemistry, Division of Nuclear Chemistry & Technology). Dr. Cheng has also served as a reviewer for many funding agencies, over 90 research journals, and several societies (SNMMI, WMIC, SRS) annual meetings. He has been a committee member of the Non-human Use Radiation Safety Committee (NHRSC) at Stanford University since 2009. Dr. Cheng also has had chances to mentor and train over 60 people in his lab. Additionally he has taught courses to students and Nuclear Medicine Residents at Stanford, and he gave many invited lectures across different meetings and universities.

Molecular probe is one of the key components of molecular imaging. Novel radiochemistry and radiopharmaceuticals are the major driving forces of advancement and translation of molecular imaging. Dr. Cheng hopes to work closely with other colleagues and scientists to continue to promote the goals of the RPSC, advocate of the value and importance of radiochemistry and radiopharmaceuticals, advance the field of radiopharmaceutical sciences and molecular imaging, facilitate the translation process of imaging agents into patients care, train the next generation of radiopharmaceutical and molecular imaging scientists, and recruit new members to RPSC.

## Treasurer

### Ethan Balkin, PhD



Dr. Ethan Balkin earned his BA in biology with minor in chemistry and research focus in radioanalytical chemistry under the direction of Dr. J. David Robertson at the University of Missouri-Columbia in 2004. He subsequently spent two years working in drug development for a critical care segment of the pediatric population at the University of Missouri-Columbia Department of General Surgery before beginning his graduate work. In 2011 Dr. Balkin earned his Ph.D. in pathobiology with an emphasis in radiopharmaceutical science and targeted radiotherapy also from University of Missouri-Columbia. His dissertation, "Targeted  $^{177}\text{Lu}$  Antisense Radiotherapy of B-Cell Non-Hodgkin's Lymphoma" was conducted under the direction of Dr. Michael R. Lewis, and addressed the hypothesis that a radiolabeled, synthetic, biologically active, peptide sequence that is antisense to a critical sequence in an oncogene's mRNA has distinct biodistribution and therapeutic advantages. Dr. Balkin did his post-doctoral training at the University of Washington under the direction of Dr. D. Scott Wilbur working on solid target chemistry for the cyclotron based radionuclides  $^{211}\text{At}$  and  $^{186}\text{Re}$ , as well as bioconjugation and radiolabeling techniques for monoclonal antibodies and small molecules.

Dr. Balkin is currently an Assistant Professor in the Department of Radiation Oncology at the University of Washington. He also holds an appointment as an Adjunct Professor of Chemistry at Seattle Pacific University. His research interests are focused in targeted molecular radiotherapy and solid target chemistry and design for cyclotron based radionuclide production, and isolation automation. Dr. Balkin is an active member of the Society of Nuclear Medicine and Molecular Imaging (SNMMI) and currently holds an appointment as a member of the SNMMI/ACNM joint government relations committee where he assisted with the preparation of the SNMMI response document to the NRC's proposed changes to 10 CFR Part 20. He was a recipient of one of the 2013 RPSC Young Investigator Symposium awards, and was selected as a participant in the inaugural SNMMI Future Leader's Academy in February of 2014. Dr. Balkin is also an active member of the Society of Radiopharmaceutical Sciences (SRS) and the American Chemical Society (ACS).

If elected as Treasurer on the RPSC Board of Directors, Dr. Balkin will enthusiastically work with colleagues to promote the goals of the RPSC, advocate for the importance of radiochemistry/radiopharmaceutical science training programs, and faithfully discharge the duties of the office. Dr. Balkin seeks election to allow for a more active role in the council and looks forward to providing input during the upcoming crucial years as we seek a solution to the issue of production of  $^{99\text{m}}\text{Tc}$ .

### Peter J. H. Scott, PhD



Dr. Peter Scott is an Assistant Professor of Radiology at the University of Michigan, as well as Director of the PET Center and a Member of the Interdepartmental Program in Medicinal Chemistry. Scott's group is involved in all aspects of Radiopharmaceutical Sciences including i) developing new methods for radiolabeling bioactive molecules, ii) design and synthesis of new radiotracers for PET imaging of CNS disorders such as Alzheimer's disease, and iii) cGMP radiopharmaceutical manufacture. The goals of his lab are to use PET radiotracers to improve our understanding of disease mechanisms and, ultimately, employ them as companion diagnostics to support therapeutic development. Prof. Scott has published 39 papers, almost 70 abstracts and 20 book chapters, edited 4 books (including 2 volumes of Radiochemical Syntheses) and is listed as an inventor on multiple patents. His laboratory is funded by the U.S. Department of Energy, the National Institute of Biomedical Imaging and Bioengineering, and the Alzheimer's Association.



Prof. Scott is seeking re-election to Treasurer of the RPSC Board of Directors so that he can continue to enthusiastically champion the goals of the RPSC. This work includes advancing radiopharmaceutical sciences and molecular imaging, and support the interests of the current council membership, whilst working diligently to recruit new members. For young members, Prof. Scott will continue to ensure financial support for RPSC initiatives such as the Young Investigator Award and the Internship Program, which are valuable contributions by the RPSC to the continued development of the new up-and-coming radiopharmaceutical scientists. For the more established Members, Prof. Scott will ensure continued support of the Michael J. Welch Award and sponsorship for the Poster Mixer at the SNMMI Annual Meeting (almost \$20k was raised jointly by the RPSC and CMIT in support of the 2014 event in St. Louis).

## Board Members

### Andrew G. Horti, PhD



Andrew G. Horti obtained his PhD in organic synthesis and physical chemistry at the Leningrad Institute of Technology, USSR. Subsequently he worked as a research scientist on the Anti-Cancer Drug program for the same university. In 1992, after the collapse of USSR, Andrew moved to USA, where he resided in Baltimore, MD. He completed his post-doctoral training at the Johns Hopkins University PET Center under the supervision of Drs. Henry N. Wagner, Jr. and Robert F. Dannals. Following that he worked as a PET radiochemist for the Yale University-VA PET center in West Haven, CT. His career continued at the NIDA IRP where he was responsible for the operation of the PET radiochemistry laboratory. He is currently an Associate Professor in the Department of Radiology, Division of Nuclear Medicine at the Johns Hopkins University School of Medicine.

Dr. Horti's main scientific interest is design and development of radiotracers for emission tomography imaging. His group has pioneered the development of PET radioligands for nicotinic ( $\alpha 4\beta 2$ - and  $\alpha 7$ -nAChR) and cannabinoid (CB1) receptors. Five of these PET radioligands ( $[^{18}\text{F}]2\text{-FA}$ ,  $[^{18}\text{F}]\text{AZAN}$ ,  $[^{18}\text{F}]\text{XTRA}$ ,  $[^{18}\text{F}]\text{ASEM}$ ,  $[^{11}\text{C}]\text{OMAR}$ ) have been translated by his group to human studies and are now used worldwide. These radiotracers are important tools employing PET imaging to elucidate the pathophysiology of various central and peripheral disorders and conditions. They are also useful for evaluation of new nicotinic and cannabinoid drugs. Dr. Horti's research is supported by the NIH, private foundations and the pharmaceutical industry.

Dr. Horti's scientific results have been published in various peer-reviewed journals, invited reviews and two books. He acts as a grant reviewer of funding agencies in the US, Canada and Europe. He reviews manuscripts for a number of research journals in the field of radiopharmaceutical science and molecular imaging. He also holds appointments on editorial boards for over ten scientific journals.

Dr. Horti is an active member of the Society of Nuclear Medicine and Molecular Imaging and he has organized research sessions and continued education sessions for several SNMMI meetings.

## Serge K. Lyashchenko, PharmD



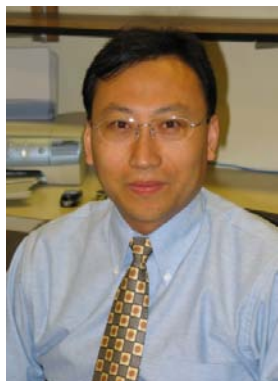
Dr. Serge K. Lyashchenko currently holds the position of Cyclotron Radiopharmacy Supervisor at the Memorial Sloan Kettering Cancer Center Radiochemistry and Molecular Imaging Probes Core Facility in New York. Dr. Lyashchenko's work focuses on the clinical translation and manufacture of radiopharmaceuticals and non-radioactive molecular imaging agents, as well as the regulatory and cGMP compliance of Core operations.

In 2006, Dr. Lyashchenko received his Doctor of Pharmacy Degree from the Ernest Mario School of Pharmacy at Rutgers University. Following graduation, he completed the Nuclear Pharmacy Certificate Program at Ohio State University and worked as a Quality Assurance Manager at IBA Molecular in Somerset, NJ; the facility with the largest PET drug manufacturing operation in the world.

At IBA, Dr. Lyashchenko gained invaluable experience working in multiple commercial PET production facilities. This experience, combined with a professional interest in chemistry and a personal resolve to make a difference in the fight against cancer, enabled Dr. Lyashchenko to successfully transition to the realm of clinical research at a premier academic cancer research institution in 2011. Guided by the leadership of Professor Jason S. Lewis, Ph.D, Dr. Lyashchenko spearheaded efforts to expand the clinical radiochemistry and molecular imaging probes program at MSK and to design a brand new PET production facility for the manufacture of radiopharmaceuticals for both clinical and clinical research use. Dr. Lyashchenko's focus on clinical research is exemplified by his active membership on the MSK Investigational New Drug Committee, as well as the MSK Radiology Quality Assurance Committee. With a primary interest in the fields of ImmunoPET and Theranostics, he has managed the clinical translation of more than 15 different agents, which include Zr-89 labeled antibodies and minibodies, I-124 and I-131 radioiodinated antibodies, Ga-68 and Lu-177 labeled peptides, F-18 and I-124 labeled small molecules, F-18 labeled amino acids, and I-124 labeled nanoparticles. Dr. Lyashchenko currently supervises the manufacture of more than 20 different clinical research agents for various cancer imaging and therapy indications. Additionally, he advises pharmaceutical industry collaborators on the development of novel radiopharmaceuticals beyond the first-in-human studies stage.

Constantly endeavoring to expand the role of pharmacists in molecular imaging field, Dr. Lyashchenko is working closely with Dr. Kayvan Keshari, Ph.D., to establish a clinical dynamic nuclear polarization program at MSK. Dr. Lyashchenko has successfully developed a clinical preparation method for C-13-Pyruvate polarization using a Diamond SpinLab 5T Hyperpolarizer, manufactured by GE Healthcare. My interest in the Board Member position on the Radiopharmaceutical Sciences Council Board of Directors stems from my professional belief that the best possible patient care can be achieved when it is based on sound science and a constantly evolving professional multidisciplinary team approach. If elected, I look forward to collaborating with other healthcare professionals and scientists to accomplish a common goal of advancing the exciting field of radiopharmaceutical sciences.

## Yubin Miao, PhD



Dr. Yubin Miao received his Ph.D. degree in Radiopharmaceutical Chemistry at Beijing Normal University in 1997, under the mentorship of Professor Boli Liu. He then spent three years to carry out postdoctoral research in Professor Thomas P. Quinn's group at the University of Missouri-Columbia. Dr. Miao was a Research Assistant Professor in the Department of Internal Medicine at the University of Missouri-Columbia from 2003 to 2006. In 2006, he joined the College of Pharmacy as a tenure-track Assistant Professor at the University of New Mexico. From 2006-2014, he served as an Assistant Professor and Tenured Associate Professor in the College of Pharmacy at the University of New Mexico. In 2015, Dr. Miao joined the Department of Radiology at the University of Colorado Denver, where he is a Tenured Associate Professor and Director of Radiopharmaceutical Science.

The research interests in Dr. Miao's laboratory focus on developing novel radiolabeled peptides for cancer (melanoma, breast and prostate cancers) diagnosis and treatment. Specifically, Dr. Miao and his research team are utilizing radiolabeled peptides to target G protein-coupled receptors (GPCRs) over-expressed on cancer cells for cancer detection and therapy. Dr. Miao has published 68 peer-reviewed papers and book chapters, and presented 49 invited lectures and 71 abstracts in international and national conferences. Dr. Miao has received a number of prestigious awards including Society of Nuclear Medicine Radiopharmaceutical Science Council Young Investigator Award and American Association of College of Pharmacy New Investigator Award. Dr. Miao sits on the editorial board for *American Journal of Nuclear Medicine and Molecular Imaging*, *Frontiers in Biomedical Physics* and *Current Molecular Imaging*, and serves as a reviewer for over 20 other peer-reviewed journals. Moreover, Dr. Miao has been a member of the Society of Nuclear Medicine and Molecular Imaging (SNMMI), Society of Radiopharmaceutical Sciences (SRS) and Radiopharmaceutical Science Council (RPSC) for more than ten years, and has been actively attending the SNMMI- and SRS-sponsored scientific meetings. Dr. Miao has become a strong advocate of Radiopharmaceutical Sciences.

Statement: Radiopharmaceutical Sciences are the foundations of nuclear medicine and molecular imaging. The training of the next generation of radiopharmaceutical scientists is critical for the growth and advancement of Radiopharmaceutical Sciences. If elected to the RPSC Board of Directors, Dr. Miao would enthusiastically support the RPSC programs that recognize the accomplishments of new radiopharmaceutical scientists (i.e. Young Investigator Award), promote innovative research (i.e. Pilot Project) and provide travel support to talented graduate students and postdoctoral researchers. Dr. Miao is committed to promote the visibility of the RPSC by achieving the goals of the RPSC, and support the interests of the current members while developing new strategies to recruit new members.

## Reiko Oyama, RPh, BCNP



I received my B.S in Pharmaceutical Sciences from Nagasaki University in Japan and then obtained my Japanese pharmacist license. I worked as a Quality Assurance Pharmacist at a pharmaceutical company and also worked at hospitals where one of my responsibilities was compounding Total Parental Nutrition in a clean room, as well as dispensing pharmaceuticals to patients. I moved to the United States in 2000, and in 2003 I joined the cyclotron group at Washington University in St. Louis, directed by Dr. Michael Welch, then later by Dr. Robert Mach. I worked as a quality control (QC) analyst under the supervision of Sally Schwarz, RPh, BCNP. While I was working, I took and passed the Foreign Pharmacy Graduate Equivalency Examination in 2006, and became a Missouri pharmacist in 2007. I also obtained Board Certification in Nuclear Pharmacy in 2008, and

was promoted to the Nuclear Pharmacist and the Quality Control Manager of the Cyclotron Group.

As the Nuclear Pharmacist and QC Manager, I am responsible for assuring the quality of more than 20 different PET radiopharmaceuticals produced at Washington University. Additionally I provide aseptic



training—overseeing more than 30 media fill tests per year—environmental monitoring and QC analyses. I also work with pharmacy students, and assist in the translation of many PET radiopharmaceuticals into clinical use. This involves filing applications to either the University's Radioactive Drug Research Committee (RDRC) or to the FDA for Investigational New Drug applications. I have also been involved in filing Abbreviated New Drug Applications. Submission of these applications require interacting with physicians, physicists, researchers, study coordinators, and microbiologists.

Being a pharmacist in both the US and Japan, and having achieved my current position at Washington University, has allowed me the opportunity to work with scientists of diverse nationalities. I have developed a great appreciation for the future potential of radiopharmaceutical applications and am particularly interested in quality assurance systems, education systems, and regulations.

I believe that the RPSC has a very important role in SNMMI in supporting the translation of radiopharmaceuticals for human use from benchtop to clinical utilization to help patients in the diagnosis and treatment of their diseases, and to bring scientists together from all over the world to move the technology and applications for radiopharmaceuticals forward. I believe the RPSC is a community where scientists in all different fields can work together toward the same goal, improving patient care and outcomes, and nurturing the next generations of scientists.

If elected, I hope to help the RPSC continue to foster progress of radiopharmaceutical technology and application by not only increasing its membership but by further developing a greater community in which scientists can be stimulated by the diverse perspectives of their peers and engage in mutual learning .

### **Amy L. Vavere, PhD**



I am currently Head Radiochemist at St. Jude Children's Research Hospital in Memphis, TN. I received my bachelor's degree in chemistry from Drake University (1998) followed by a PhD in Inorganic Chemistry under the supervision of Dr. Michael J. Welch at Washington University in St. Louis (2004). My thesis work centered on  $^{45}\text{Ti}$ , using this exotic radionuclide to examine titanocene dichloride and its mechanism in vivo. To get exposure to more standard, clinical radiotracers, I pursued an NIH National Research Service Award postdoctoral fellowship with Jason S. Lewis, PhD at Washington University School of Medicine studying the effects of prostate cancer treatments through PET imaging with FDHT, FDG, [ $^{11}\text{C}$ ]acetate, and  $^{64}\text{Cu}$ -DOTA-anti-HIF-1 $\alpha$ , and  $^{64}\text{Cu}$ -ATSM. As a result of this project, several interesting discoveries were made about the challenges of imaging prostate cancer and its relationship to fatty acid synthase expression.

In 2007, I brought my experience to St. Jude Children's Research Hospital to help initiate a brand new molecular imaging research group focused on clinical research for the pediatric cancer population. This environment brings a unique set of challenges with INDs required for each clinical tracer. My primary responsibility has been the implementation of radiotracer processes for clinical use, including FDG and [ $^{11}\text{C}$ ]methionine. Recently, I have been developing improved methods for preparation of [ $^{18}\text{F}$ ]MFBG and 6- [ $^{18}\text{F}$ ]Fluorodopamine via novel iodonium salt chemistry with the goal of moving to patients in the near future. Additionally, I am helping to develop an imaging surrogate of a GD2 antibody therapy currently in clinical trials for neuroblastoma at St. Jude. This novel  $^{89}\text{Zr}$ -labeled antibody is proving promising in animals and IND preparations are underway.

In addition to publishing in journals such as Cancer Research, Journal of Medicinal Chemistry, and of course the Journal of Nuclear Medicine, I have published several invited reviews. I have several years of experience as a grant reviewer for the Department of Energy and have reviewed manuscripts for Cancer Research, BMC Medical Physics, Journal of Nuclear Medicine Technology, and Applied Radiation and Isotopes. Locally, I served three years on the Organizing Committee for the Annual Memphis Bioluminescence Symposium.

If elected to the RPSC Board of Directors, I hope to use my experiences in academia and the hospital setting to find common ground among all types of scientists in our organization at all stages in their careers. Over my years in this field, I have seen a need for better avenues to communicate between researchers regarding protocols and details for quality control of radiotracers and possible roadblocks that aren't generally found in publications. I believe the RPSC has already established excellent opportunities for learning about FDA approval and oversight, and I hope to take this further with additional sessions or forums regarding the steps that come before that point. Providing an avenue for the dissemination of synthetic and quality control specifics and possible issues of new (or not-so-new) radiotracers would allow efficiency and confidence for researchers in the pre-clinical and clinical environment.

## SNMMI Annual Meeting, Baltimore, MD, June 6-10, 2015

### RPSC Sponsored Events

**RPSC Business Meeting** - Open to all RPSC members, will be held Sunday, June 7, 2:00pm – 2:30pm, Room TBD, during the SNMMI Annual Meeting (June 6 - 10) at the Baltimore Convention Center, in Baltimore, MD.

**Categorical Session** – [Back to the Basics: A Rational Approach to Probe Design](#) will be held on Saturday, June 6 from 8:00am – 4:00pm at the Baltimore Convention Center in room 317.

The Radiopharmaceutical Sciences Council is also sponsoring the following *continuing education sessions*:

- [Cutting Edge 18F Labeling Strategies](#) - Saturday, June 6, 4:00pm – 5:30pm, room 317.
- Nanomedicine – Sunday, June 7, 2:45pm – 4:15pm, Ballroom II
- [Dually Labeled Nuclear and Optical Probes](#), Monday, June 8, 10:00am – 11:30am, room 317
- [Michael J. Welch, PhD, Award and Lecture](#), Monday, June 8, 12:30pm – 2:00pm, room 317
- [Current Topics in FDA Reviews and Inspections of PET Drug Manufacturers](#), Monday, June 8, 4:45pm – 6:15pm, room 317
- [Moving a Radiopharmaceutical Through the IND Process: From Idea to Approval](#), Tuesday, June 9, 12:30pm – 2:00pm, room 314
- [PET /SPECT Imaging of Cardiovascular Diseases: State of the Art](#), Tuesday, June 9, 2:45pm – 4:15pm, room 316

**RPSC Young Investigators Award Symposium** - The RPSC Young Investigator Symposium will be held on Sunday, June 7 from 12:30 – 2:00pm in room: 308.

**Radiopharmaceutical Sciences/Molecular Imaging/CMIIT Basic Science Summary** - The Basic Science Summary Session co-sponsored by RPSC and the Center for Molecular Imaging Innovation and Translation will be held on Sunday, June 7 from 4:30 – 6:00pm in Ballroom 3.

**RPSC/CMIIT 9th Annual Poster Mixer** - Please also join the 9th Annual RPSC/CMIIT Poster Mixer in Exhibit Halls B-D, from 6:30pm – 8:30pm. Drinks and light Hors d'oeuvres will be served.

**See you in Baltimore!**