In 2018, SNMMI’s Value Initiative efforts generated considerable excitement within the imaging community as they kicked into high gear. Throughout the year, SNMMI worked in close collaboration with colleagues and companies inside and outside of the imaging community, making significant progress in advancing nuclear medicine and molecular imaging.

Successes included developing appropriate use criteria (AUC) for high-value nuclear medicine procedures, creating reader training for new imaging agents, submitting legislation to obtain separate payment for high-value diagnostic radiopharmaceuticals, and initiating the development of a joint clinical data registry module for nuclear medicine in collaboration with the American College of Radiology (ACR).

Now, with eyes on 2019 and the future, SNMMI continues to collaborate with stakeholders to work through its strategic roadmap, pursuing current initiatives and identifying new opportunities and innovations that will lead transformation in the field, further advancing targeted medicine and increasing the value of nuclear medicine and molecular imaging to the medical community, regulators, patients, and the public.

This article recaps progress made in 2018 and highlights Value Initiative goals in the coming year.

**Quality of Practice Domain**

The goal of the Quality Domain is to ensure high-quality, value-driven, patient-centered care in nuclear medicine and molecular imaging.

**In 2018, SNMMI:**

- Continued the development of appropriate use criteria (AUC) for high-value nuclear medicine procedures.
- Worked with leading clinical decision support mechanisms to translate AUC recommendations into...
Technological advances reside at the core of nuclear medicine, spanning a time from when systems first detected tracers administered to patients to today’s multifunctional tracers used for quantitative analysis. Technology’s benefits to nuclear medicine continue to evolve, even now as the field celebrates 60 years of the gamma camera and 20 years since the introduction of PET/CT. Today, Siemens Healthineers continues to aid in the progress of nuclear medicine with its latest technological triumphs: xSPECT Quant™ technology for SPECT/CT and the Biograph Vision™ PET/CT scanner.

As physicians strive to enhance patient care, manufacturers continue to work and produce technologies that define innovations. For physicians at the Centre Hospitalier Universitaire Vaudois (CHUV) in Switzerland and the University Medical Center Groningen (UMCG) in the Netherlands, the utilization of such innovations impact their clinical decisions today.

Quantifying Nuclear Medicine

“SPECT quantification has been around for a long time in nuclear medicine,” John Prior, PhD, MD, FEBNM, head of nuclear medicine at CHUV, says. “In the beginning, we were basically trying to perform quantification with regular nuclear medicine every time we did dosimetry studies, but that was very cumbersome.”

Needless to say, implementing a cumbersome quantitative approach to SPECT/CT in a busy, daily workflow was a challenge. With xSPECT Quant, Prof. Prior and his team now have access to a technology that enables them to incorporate automated quantification in their daily workflow. “When we could see that a manufacturer had the possibility to deliver something that could be intrinsically calibrated, this gave us a lot of hope for quantitative SPECT/CT,” summarizes Prof. Prior. “We can now precisely quantitate how much of the radiopharmaceutical we administer to the patient ends up in a given organ. Siemens Healthineers was the first one with this tool. We are now working with a range of isotopes—Iodine-123, Lutetium-177, Indium-111, and Technetium-99m—and we can see things we would not see before.”

He further explains that the technology enables physicians to obtain an absolute quantitative value. “We do not need to make a ratio. And because of that, we thought, ‘this is interesting and maybe we can catch disease earlier with this.’ With these radiotracers we can follow the pathology; we can detect a disease in a more efficient way since we have an absolute, quantifiable value,” Prof. Prior concludes.

Delivering Precision

Automated quantification in SPECT/CT is more than a clinical breakthrough: it enables precision. Prof. Prior emphasizes the benefit that quantification brings to SPECT/CT: “It’s bringing a little bit more precision in what we call precision medicine.”

While SPECT/CT looks to quantification as its gateway to precision, PET/CT looks to the latest advancements in scanner technology to bring precision to molecular imaging. UMCG, an institution that wants to harness the latest advancements in PET/CT imaging capabilities, recently installed the world’s first Biograph Vision. Discussing the initial appeal of Biograph Vision, Prof. Boellaard, PhD, medical physicist at UMCG, explains, “we were interested in working with new technology and new innovations, not only because we

Continued on page 6. See A New Era of Nuclear Medicine
As One Chapter Ends, Another Begins

A GLIMPSE INTO USP GENERAL CHAPTER <825> AND THREE WAYS YOU CAN START PREPARING NOW

By Cardinal Health

An article by Cardinal Health, an SNMMI Value Initiative Industry Alliance Leadership Circle Partner

A Story About Preparing Tc-99m Red Blood Cells Under USP <797>

As nuclear medicine departments developed standard operating procedures for the preparation of Tc-99m red blood cells (RBC), some questioned how it fit within the USP <797> standards. Did the immediate use criteria apply despite exceeding the allowed number of septa punctures? Was it considered a compounded sterile preparation, since it contains human blood? Lack of specific USP standards raised potential for varied interpretations by nuclear medicine practitioners and confusion across the industry.

For more than a decade, radiopharmaceuticals have fallen under the standards of USP General Chapter <797> Pharmaceutical Compounding—Sterile Preparations. And like the story of preparing Tc-99m RBCs, the USP <797> chapter didn’t always fit radioactive drug preparation because of the short half-lives and radioactivity of these unique drugs. That’s all changing with USP <825>—a chapter dedicated to the handling, storage, and transportation of both sterile and non-sterile radiopharmaceuticals.

An interview with two members of the USP Expert Panel on Radiopharmaceuticals sheds light on what they think regulators will focus on and how you can start preparing before the final Chapter is published in June 2019.

Paving a New Way Forward

The story about preparing Tc-99m red blood cells is one of many examples that demonstrated the need for more focused attention in this specialty area of medicine and pharmacy practice. That became apparent to USP after they received an “overwhelming number of comments regarding radiopharmaceuticals during the 2016 revision of USP <797>,” commented Rich Green, Director, Radiopharmacy Practice for Cardinal Health. “The 38-page chapter afforded only six small paragraphs to radiopharmaceuticals.”

In response, “USP convened a panel of nuclear pharmacists and other experts—including representatives from SNMMI—in February 2017 to consider establishing a separate chapter specific to both sterile and non-sterile radiopharmaceuticals.”

From there, USP formed the Expert Panel on Radiopharmaceuticals comprised of professionals from across the field to provide input into the new USP <825> chapter—which is currently in draft form.

Continued on page 7. See As One Chapter Ends
There is little debate that SPECT and SPECT/CT imaging have proven benefits in lesion detection, better definition and localization of disease when compared to traditional planar imaging. But there is an additional question to be asked when evaluating new equipment purchases and the future growth potential of a nuclear medicine service line:

“Should we pursue digital technology with SPECT as we have elsewhere in imaging?”

To confidently answer this industry advocates must first create awareness as to the clinical effectiveness of digital nuclear technology, evaluate the operational and economic impact, and understand any tradeoffs between options in the marketplace.

Much of this thought leadership is coming from perhaps an unexpected place. Spectrum Dynamics Medical, a company well known in nuclear cardiology for its market leading D-SPECT® series cameras, is the new disruptive player in radiology’s general purpose nuclear marketplace. Drawing from the digital experience of the last decade with D-SPECT, Spectrum is making industry take notice with the new VERITON™ series of SPECT and SPECT/CT systems. The game changing nature of this technology since its FDA and CE approval has been recognized by consumers, lauded by media, and recently awarded by Frost & Sullivan as a key enabling technology for growth. This new system addresses historical design barriers and creates a new industry standard in digital SPECT.

Continued on page 6. See Enabling Digital Transformation
SNMMI & National Cancer Institute Hold Theranostics Consensus Conference

Examples of molecular imaging tied to radionuclide therapies

- Bone turnover in skeletal metastases: $[^{18}F]fluoride$
- Iodide transport in differentiated thyroid cancer: $[^{123/124/131}]iodide$
- Somatostatin receptors in neuroendocrine tumors: $[^{18}Ga]DOTA\text{TATE}$
- Norepinephrine transporter in neuroendocrine tumors: $[^{131}]MBG$
- Prostate specific membrane antigen in prostate cancer: $[^{18}F]DCFPyL$

The Society of Nuclear Medicine and Molecular Imaging’s Therapy Center of Excellence and the Clinical Trials Network co-sponsored a conference on November 8-9, 2018, hosted by the National Cancer Institute (NCI). This “Theranostics Consensus Conference 2018” was held at the Natcher Conference Center’s Bethesda, Maryland, campus and sponsored by Progenics Pharmaceuticals. The goal of the two-day meeting was to gather representatives from major stakeholders in the theranostics space—including representatives from the Food and Drug Administration (FDA), NCI, academicians, clinical physicians, and pharmaceutical company executives—to develop guidelines for efficient clinical trial design targeting the collection of necessary data for both successful regulatory filings and timely and reasonable reimbursement of theranostic agents.

Theranostic agents and technologies are a relatively new class of products that combine highly targeted diagnostic imaging agents, typically radiolabeled with short-lived radionuclides, with nearly identical therapeutic molecules, radiolabeled with longer-lived particle-emitting radionuclides designed to effectively treat cancers. It is globally accepted by the medical community that theranostic agents and technologies are both efficient and successful in treating some cancers. Because these paired diagnostic and therapeutic agents are administered in very low-mass doses and treat through highly localized and biologically directed radiation effects (rather than pharmacologic action), they present challenges to the current regulatory and reimbursement paradigms that will substantially impact clinical trial design. Sharing perspective on these new agents from scientific, regulatory, societal, and reimbursement angles creates potential for prospective identification of critical clinical trial data collection strategies that will speed the diagnostic and therapeutic development and commercialization process while ensuring the collection of most-appropriate safety and efficacy data. Figure 1 demonstrates examples pairing certain imaging agents with their theranostic counterpart.

The primary goal of the conference was two-fold:
- 1. Outline a pathway for the regulatory approval of targeted radiotherapies and their companion diagnostic.
- 2. Identify the data needed by government and private payers to support reimbursement for imaging and therapeutic agents.

Continued on page 10. See Theranostics Consensus Conference
could see more patients a day, but also because of the expected improvement in image quality as a result of the excellent time-of-flight performance. We envisioned that we could get more accurate image quantification and an improved image quality.”[1]

Installed in May 2018, Biograph Vision was able to quickly meet expectations at UMCG. Drawing on Prof. Boellaard’s recount on the appeal of the new scanner, Walter Noordzij, PhD, MD, a nuclear physician at UMCG, reveals his first clinical impressions of Biograph Vision: “There is a potential in better discriminating lesions from physiological background activity. And maybe upstaging your patients from, let’s say, uncertain up to the presence of a disease.” As the third PET/CT scanner at UMCG, Biograph Vision will enable them to significantly increase the number of scans they perform. Dr. Noordzij further discusses how the additional capacity will enable the implementation of more clinical, as well as research-focused, PET/CT scans. “On the one hand, we’ve seen an increase in the demand for clinical PET/CT scans over the past five to six years. But on the other hand, there’s an enormous demand for research in PET/CT and it’s pretty easy to say the addition of Biograph Vision will help us meet this need.”

The ability to be precise, as the field strives to contribute to personalized medicine, is paramount. At CHUV, while Prof. Prior works to bring quantification and precision to SPECT/CT, he can also bring the most current innovations in PET/CT to his patients, as CHUV recently installed the world’s second Biograph Vision. “I’m really lucky to be at a center where our oncologists are so interested in molecular imaging. With xSPECT Quant and Biograph Vision, it’s really helping us push the technology that best serves our patients,” Prof. Prior emphasizes.

[1] Compared to current systems.
According to Patricia Kienle, Director, Accreditation and Medication Safety for Cardinal Health, the new chapter “incorporates the specific needs of nuclear pharmacies and nuclear medicine departments in hospitals and clinics and provides the patient safety protection intended by USP <795> (nonsterile preparations) and <797> (sterile preparations).”

**Getting Prepared Now; Top Three Areas to Focus**

While USP <825> won’t be official until December 1, 2019, our experts propose three ways you can start preparing now to make sure you are ready when the time comes.

1. For starters, Kienle suggests getting familiar with the draft chapter <825> Radiopharmaceuticals—Preparation, Compounding, Dispensing, and Repackaging. It was first made available in July 2018 and open to public comment until November 30, 2018. “Over 1,500 comments were received,” says Green, “and the Expert Panel will review the merits of each comment before publishing the final Chapter in June.”

2. Next, review and compare the practices and procedures you have in place today against what you’ll be held to in the draft. “While still a draft and likely to have some minor changes, this self-performed gap analysis will help you identify some areas that might need attention and review,” notes Green.

Kienle agrees and adds that “facility design, competency of staff, and infection control practices (including how blood products are handled)” are good areas to focus on first.

3. Lastly, Green says to strengthen relationships with your pharmacy department. Since radiopharmaceuticals are radioactive, nuclear medicine departments have historically managed their use by complying with U.S. NRC or Agreement State regulations. However, as legend drugs, accreditation agencies denote that the director of pharmacy has oversight responsibility for their use based on medication management standards.

“[Directors of Pharmacy] are experts in compounding and are responsible for all medication use in the institution,” notes Green. “In addition to non-sterile pharmaceutical compounding <795>, sterile pharmaceutical compounding <797>, hazardous drug compounding <800>, they will be your allies in assisting your department as you prepare for <825>.”

Green points out several resources available to help you build greater collaboration with your pharmacy department including:

1. The current list of FDA-approved radiopharmaceuticals to help identify what radiopharmaceuticals and other pharmaceuticals are used in your department.
2. The current list of contraindications to these radiopharmaceuticals.
3. An FAQ that gives insight into how the Director of Pharmacy (DOP) will become more involved with the medications used in the Nuclear Medicine Department.
4. An FAQ to provide to your DOP to help them better understand their responsibility in overseeing the medications in the Nuclear Medicine Department.

As for what you can expect after the Chapter becomes official, Kienle says “Each state board of pharmacy will handle this per their own regulations. I think we will see more consistency from the accreditation organizations—such as The Joint Commission—since they already include nuclear medicine in their medication management tracers in hospitals. They are likely to assess the nuclear medicine departments with key elements from <825> and look at current leadership requirements concerning contracting of clinical services.”

Disclaimer: The views and opinions are those of the authors and do not represent USP

**Reference**

SNMMI Experts

In 2019, SNMMI will continue to build upon and expand existing initiatives. Highlights include:

- Explore expanding collaboration on the nuclear medicine–specific clinical data registry module to other organizations, such as the American College of Surgeons and the American Society of Clinical Oncology.
- Develop and launch the new SNMMI accreditation program for therapy, in collaboration with the Intersocietal Accreditation Commission, and explore collaboration with other organizations.
- Complete and disseminate AUC for PET myocardial perfusion, prostate cancer imaging, evaluation and treatment of differentiated thyroid cancer, infection imaging, and gastrointestinal transit; identify high-value nuclear medicine procedures for new AUC.
- Work with clinical decision support mechanism vendors to prepare for the implementation of the Protecting Access to Medicare Act in January 2020, ensuring proper implementation of SNMMI’s AUC and their integration with electronic health records.
- Update existing procedure standards and develop new ones for all newly approved tracers and therapeutic radiopharmaceuticals.

Research and Discovery

The goal of this domain is to advance the development and approval of nuclear medicine and molecular imaging technologies, including therapies.

In 2018, SNMMI:

- In cooperation with the National Cancer Institute, filed a New Drug Application (NDA) for \(^{18}\)F-DOPA for the indication of congenital hyperinsulinism. The NDA was accepted by the Food and Drug Administration (FDA), with a User Fee Goal Date of May 24, 2019 (priority review).
- Hosted the Theranostics Consensus Conference 2018 in November. (See article on page 5)
- Developed continuing education and reader training for new imaging agents.

In 2019, SNMMI will continue to expand on the successes above and will also:

- Complete and publish a vision document identifying priorities for investment in molecular imaging and theranostics. We will use the vision document to match initiatives with funding from agencies and foundations.
- Broaden the label for \(^{18}\)F-FDG to include imaging of infection, inflammation, and fever of unknown origin. A cost-effective strategy for this work has been developed and will soon be underway.
- Develop non-proprietary agents for unmet clinical needs. Additionally, utilize SNMMI’s Abbreviated New Drug Application to assist sites and entities that wish to image with \(^{18}\)F-FDOPA.

Advocacy Domain

The goal of the Advocacy Domain is to promote awareness among policymakers about nuclear medicine and molecular imaging. Paramount in this area is advocacy for a better approval, coverage, and reimbursement process for nuclear medicine and molecular imaging drugs, devices, diagnostic procedures, and therapies.

In 2018, SNMMI:

- Along with the Medical Imaging and Technology Alliance and the Council on Radionuclides and...
Radiopharmaceuticals, introduced legislation to obtain separate payment for high-value diagnostic radiopharmaceuticals.

- Obtained new Current Procedural Terminology (CPT) codes for cardiac PET and requested codes for SPECT and SPECT/CT.
- Reactivated the Third-Party Payer Committee to proactively work with local Medicare contractors and private payers to supply the data needed for appropriate coverage decisions.
- Submitted detailed comments to the U.S. Pharmacopeia on General Chapter 825 on preparation, compounding, and dispensing of sterile radiopharmaceuticals.
- Co-signed letter of support for Department of Energy (DOE) funding. The National Nuclear Security Administration/DOE received the $20 million they requested as well as an additional $40 million for new cooperative agreements to expedite the establishment of a stable domestic source of Mo-99.

In 2019, SNMMI plans to continue many of the initiatives started in 2018, including:

- Seek legislative changes that support reimbursement.
- Synchronize FDA approval with coverage by the Centers for Medicare and Medicaid Services (CMS).
- Obtain CPT codes and reasonable reimbursements for new procedures.
- Overturn the CMS non-coverage decision for PET outside of oncology.
- Seek improvements in isotope supply chain integrity.
- Enhance advocacy at the state level.

Workforce Pipeline and Lifelong Learning Domain

The goal of this domain is to innovate and collaborate to retain and expand the diverse pool of qualified professionals working in the field of nuclear medicine.

In 2018, SNMMI:

- Worked collaboratively with chapters to identify “Chapter Champions” to increase recruitment and retention of nuclear medicine and molecular imaging professionals.
- Created a comprehensive database of residency training programs for nuclear medicine and nuclear radiology. The residents were offered SNMMI membership, and resident members increased fivefold over 2017-2018.
- Exhibited at relevant society meetings, such as the Association of University Radiologists (AUR) and the American Medical Student Association (AMSA), to raise awareness of nuclear medicine as a viable and exciting option for residents and young physicians.
- Developed and launched a new website for residents/medical students to provide information on career pathways and answers to frequently asked questions.
- Organized a two-day comprehensive session focused around medical students and residents during the SNMMI Annual Meeting.

In 2019, in addition to continuing the activities above, proposed activities include:

- Organize a high-level summit of nuclear medicine/nuclear radiology program directors and other pertinent subject matter experts to discuss various nuclear medicine/nuclear radiology residency training pathways and identify challenges and opportunities.
- Expand participation in meetings/conferences to include, for example, the Radiological Association of North America and the American Roentgen Ray Society to increase the visibility of nuclear medicine and encourage residents in diagnostic radiology to consider dual fellowship training in nuclear medicine.
- Work with Chapter Champions to increase the recruitment and retention of nuclear medicine professionals.
- Work with regulators and relevant stakeholders to ensure appropriate training and experience requirements for authorized users of radiopharmaceuticals.
- Explore development of joint training programs on theranostics with other specialties such as radiation oncology.

Outreach Domain

The goal of the Outreach Domain is to ensure that patients and the medical community recognize the value of nuclear medicine, molecular imaging, and radionuclide therapy.

In 2018, SNMMI worked closely with patient and referring physician groups to advocate for patient access to nuclear medicine and molecular imaging procedures and to educate them about newly available technologies and treatments. Highlights included:

- Worked with SNMMI’s Patient Advocacy Advisory Board to participate in multiple Capitol Hill Day visits and to gain signatures for a letter of support from patient advocacy groups for H.R. 6948, the Medicare Diagnostic Radiopharmaceutical Payment Equity Act of 2018.
- Conducted six roadshows on diagnosis and treatment of neuroendocrine tumors, educating more than...
Education sessions and Q&A panels focused on key elements within this evolving field of nuclear medicine, including the current state of theranostic technology and the challenges facing theranostic developers. With all stakeholders represented, participants had productive discussions on strategies to study two investigational agents (diagnostic and therapeutic) in a single trial; personalized dosimetry needs—balancing cost with outcome; and science and data required to support reimbursement of both agents—cost-effectiveness and outcomes. Day Two opened with a session on trial design, beginning with a discussion around PSMA molecules for prostate cancer. Currently, studies target metastatic castrate-resistant patients who have failed a number of prior therapies. During this session the group discussed strategies to study these novel therapies in the context of clinical trials earlier on the disease process. Other panels discussed study endpoints beyond overall survival and progression-free survival as well as strategies to expand patient populations and label indications within the same mechanism of action for an approved drug. Finally, physicians representing SNMMI, the American Society for Radiation Oncology, and the American Board of Nuclear Medicine discussed the training needed to administer radiotherapeutics, and an additional presentation proposed a template for training requirements for theranostics physicists involved in clinical dosimetry calculations. FDA was highly engaged in discussions throughout, providing valuable perspectives and advice from a regulatory development standpoint. NCI was similarly active, providing perspective from both the Division of Cancer Treatment and from the Cancer Imaging Program; each provided valuable information on funding strategies ranging from Small Business Innovation Research (SBIR) grants to NCI’s Experimental Therapeutics Program or NExT.

Key takeaways from the meeting include the need to determine what role, if any, personalized dosimetry should play in clinical trials and subsequent clinical practice. The bulk of the recent experience with radionuclide therapy has been in late-stage patients where long-term toxicity effects of radiation are not a concern. The field needs to determine when it is safe to administer these agents earlier in the disease course, when the patients may have longer life expectancy. The clinical trials for this early stage will require the identification of new study endpoints—perhaps an imaging endpoint. Lastly, as a field, we must ensure that we have the workforce that is adequately trained in the use of radionuclide therapies.

A summary paper will be published, and sessions from the conference were recorded and will be made available for members to view online. This important discussion will continue during a categorical at the SNMMI 2019 Annual Meeting in Anaheim, CA (June 22-25).

We would like to recognize Daniel Pryma, MD (president of the SNMMI Therapy Center of Excellence), Daniel Lee, MD (vice president of the SNMMI Therapy Center of Excellence), and John Sunderland, PhD, MBA (Clinical Trials Network co-chair), as the organizers of this initial consensus conference. Additionally, we wish to thank FDA and NCI for their commitment and dedication to the conference; their participation in formal talks and hallway conversations were valued by the attendees. Thank you for your hard work in leading this cutting-edge space of research and medicine!

Slides from this conference are available at: www.snmmi.org/Theranostics2018

SNMMI Experts Continued from page 9.

- 250 patients, physicians, technologists, and related medical staff about new advancements in neuroendocrine tumor theranostics.
- Collaborated with UroToday to publish videos on nuclear medicine and molecular imaging advances related to prostate cancer, receiving more than 46,000 views from their audience (primarily urologists).

In 2019, in addition to continuing many of the efforts begun in 2018, SNMMI will expand its educational programming for referring physicians and will begin new outreach initiatives targeting hospital administrators. Among this year’s new programs:

- Launch a set of referring physician roadshows on the topic of lymphoscintigraphy and lymph node mapping.
- Create a new, branded set of videos on prostate cancer for distribution through UroToday.
- Conduct a survey of hospital administrators to learn about their perceptions, needs, and concerns; present a session at the SNMMI 2019 Annual Meeting, with participation from several administrators, to educate members on how best to advocate for nuclear medicine within their institutions.
Highlighting Women in Leadership

Tiffany Olson to serve as the first female leader on the Value Initiative Industry Advisory Board

In November 2018, The Society of Nuclear Medicine and Molecular Imaging (SNMMI) announced the addition of Cardinal Health to the SNMMI Value Initiative Industry Alliance (VIIA). Tiffany Olson, president of Cardinal Health’s Nuclear & Precision Health Solutions, will serve as the representative from the company, and serve as the first woman on the advisory board.

“I strongly believe in the mission of SNMMI’s Value Initiative, and I believe this group can help lead a necessary transformation in the nuclear medicine and molecular imaging fields,” said Olson. “I am honored to be a member of the advisory board and hope to bring new insights and fresh perspectives to the table. Through the Value Initiative, I look forward to collaboration with other medical societies and organizations, partners, patients and regulators that will lead to progress in our industry.”

The Value Initiative Industry Alliance brings members of the corporate community to the table as key players in building the future of nuclear medicine and molecular imaging and demonstrating to the medical community, regulators, patients and the public their crucial role in delivering the highest quality of care.

“With support from the Industry Alliance, we should be able to increase the value of nuclear medicine and molecular imaging, advance patient care, and ultimately improve outcomes,” said SNMMI President Satoshi Minoshima, MD, PhD. “We are grateful for Tiffany’s leadership role in this joint endeavor.”

As president of Nuclear & Precision Health Solutions at Cardinal Health, Olson oversees the manufacture, dispensing and delivery of products through the largest radiopharmaceutical network in the United States. Prior to Cardinal Health, she held leadership roles at NaviMed, Eli Lilly and Roche Diagnostics. Olson is not new to the role of pioneer—she was the first woman to receive the Life Science Alley Luminary Award, recognizing her leadership in personalized medicine, and in 2013 she received the Woman of Wellness Award for her volunteer work in oncology research.
Providing Vision & Improving Lives

The **Value Initiative** is the Society of Nuclear Medicine and Molecular Imaging’s strategic vision and roadmap for working with industry and other partners to **advance** the crucial role of nuclear medicine and molecular imaging to the medical community, regulators, patients, and the public.

*SNMMI would like to thank our Value Initiative Industry Alliance Member Companies:*

**Leadership Circle**

- **BLUE EARTH DIAGNOSTICS**
- **SIEMENS Healthineers**
- **Advanced Accelerator Applications**
- **Cardinal Health**
- **JUBILANT DRAXIMAGE**

**Principal Member**

- **Lantheus Medical Imaging**
- **Progenics Pharmaceuticals**
- **SPECTRUM Dynamics Medical**

**Corporate Member**

- **astellas**
- **HERMES MEDICAL SOLUTIONS**
- **Lilly**
- **LD LUCERNO DYNAMICS**

Learn more about becoming a Value Initiative Industry Alliance Member Company

[valueinitiative.snmmi.org](http://valueinitiative.snmmi.org)