A Strategic Approach to Advancing Nuclear Medicine and Molecular Imaging

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New tracers, imaging techniques and technologies, and radiopharmaceutical therapies have helped nuclear medicine become an integral part of patient care. Although nuclear medicine has secured its seat at the table, there is still more to be accomplished. Here are some key updates on SNMMI's activities to advance the field.

SNMMI has been working hard on multiple fronts to ensure patients have adequate and equitable access to appropriate nuclear medicine procedures. SNMMI and the American College of Nuclear Medicine submitted comments to the Centers for Medicare & Medicaid Services (CMS) on its proposed rules for the 2024 Physician Fee Schedule and Hospital Outpatient Prospective Payment System, as well as to the Nuclear Regulatory Commission on patient release and extravasation. In addition, SNMMI voiced its support for CMS to remove the National Coverage Determination for β-amyloid PET scans, which came to fruition in October.

The FIND Act was reintroduced into the House of Representatives and the Senate this year and currently has 34 cosponsors in the House. To support this bill, SNMMI hosted more than 20 virtual Hill meetings and a successful in-person Hill Day. SNMMI is also working to include molecular breast imaging in the Find It Early Act, a bill introduced on the Hill to ensure all health insurance plans cover screening and diagnostic breast imaging with no cost-sharing.

Earlier this year, Lantheus informed SNMMI that it had decided to discontinue production of Azedra (iobenguane I-131), its FDA-approved therapy for pheochromocytoma and paraganglioma. SNMMI is working with industry partners to find a way to continue production so it can be available for patients. Additionally, NorthStar Medical Isotopes announced that it will suspend production of ^{99}Mo at the end of 2023. SNMMI has evaluated the impact of this issue and has concluded that there will be no shortage in North America.

SNMMI joined with the FDA, Medical Imaging & Technology Alliance, and PET Coalition to host a workshop on inspections management and regulatory considerations in November. More than 600 participants attended the successful 2-day workshop.

SNMMI continues its work to expand integration of best practices in all aspects of nuclear medicine, optimizing patient care and access. A high priority is increasing nuclear medicine involvement in National Comprehensive Cancer Network (NCCN) guidelines, identifying writing groups that should include nuclear medicine, and working with NCCN to include nuclear medicine at the board level and on the imaging panel.

In June, in collaboration with Intersocietal Accreditation Commission, SNMMI launched a new radiopharmaceutical therapy accreditation program. The first accreditations went to 3 well-deserving facilities: BAMF Health, Stanford Health Care, and Carillion Clinic Targeted Therapy Center. In addition, 3 pilot sites have been onboarded to the SNMMI Radiopharmaceutical Therapy Registry, with additional sites in progress.

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The SNMMI Radiopharmaceutical Therapy Centers of Excellence program now includes 61 approved centers, including 2 pediatric centers: Cincinnati Children's Medical Center and Lucile Packard Children's Hospital at Stanford. SNMMI has also updated its liability policy to allow centers beyond North America to apply for a designation.

The Quality, Evidence, and Patient Safety Committee prioritized several initiatives this year. The committee is collaborating with industry to develop an international labeling system for radiopharmaceuticals to avoid dosing errors. Additionally, a new webpage with tools and information regarding patient safety has been added to the SNMMI website.

In September, SNMMI issued an updated statement on COVID-19 and ventilation/perfusion lung studies. SNMMI also issued a consensus statement on the use of ^{177}Lu-PSMA-617 and a joint consensus statement with the European Association of Nuclear Medicine and the International Society for Magnetic Resonance in Medicine for PET/MRI in oncology in adults. The SNMMI Pediatric PET/MRI Task Force, comprising centers performing pediatric PET/MRI on 6 continents, is working to issue a similar white paper.

Another high priority for SNMMI is to accelerate research and discovery. Three new online reader training modules for Locametz (Novartis), Pylarify 2.0 (Lantheus), and POSLUMA (Blue Earth) have been added to the SNMMI Learning Center. The society continues to work on numerous pharma-sponsored clinical trials, including immune-oncology imaging, multiple theranostic pairs, and imaging for amyotrophic lateral sclerosis.

A new Dosimetry Certificate Program has been created with 18 modules at varying levels for technologists, physicians, and physicists. The first modules and assessments will be released before the end of 2023.

The SNMMI Therapy Clinical Trials Network is organizing a consortium of high-quality radiopharmaceutical therapy "clinical trial-ready" sites. The sites have been working together to collect the necessary information for inclusion in a new database.

SNMMI's Mars Shot initiative has raised more than $3 million to fund innovative research in prostate, breast, and neuroendocrine

cancers and best-in-class ideas in nuclear medicine and data science. The first awards were granted in June. In addition, SNMMI allocates more than $400,000 annually to propel advancements in nuclear medicine and therapy, nurturing the next generation of nuclear medicine professionals.

SNMMI places critical importance on developing a robust workforce for the nuclear medicine field. The 2024 Workforce Pipeline strategy entails promoting nuclear medicine and molecular imaging to high school and medical school students and creating resources to help members serve as ambassadors in their local areas.

In 2024, the society will launch a new docuseries titled "Jobs of Tomorrow" designed to showcase the promising career opportunities within the field for up-and-coming professionals. The series will include segments on theranostics, brain/Alzheimer disease, cancer, cardiology, pediatrics, and general nuclear medicine.

At the 2023 Annual Meeting, SNMMI held a Nuclear Medicine Career Fair and a Student Leadership Academy. The society will exhibit at the Nuclear Science Week Expo, Association of University Radiologists, American Medical Student Association, and HOSA International Leaders Conference to educate the public, students, and medical students about nuclear medicine. In addition, SNMMI is developing a hands-on nuclear medicine ambassador program, drawing from all professions within the field: nurses, technologists, physicians, scientists, pharmacists, and industry.

A new Nuclear Medicine University (NM-U) will be launched this year, with short educational videos focused on therapy and the nuclear medicine curriculum. This series will reach residents, program directors, and technologists with quick, relevant reviews.

SNMMI seeks to recognize its members for their contributions to the field of nuclear medicine and molecular imaging. The "Ones to Watch" program showcases rising talent in the field, increasing recognition for early career professionals within our specialty. The Women in Nuclear Medicine initiative promotes women physicians and scientists in nuclear medicine and molecular imaging.

Over the past few months, I have traveled around the world for SNMMI to collaborate with global leaders on ways to advance the field of nuclear medicine. I attended the 20th Biennial Congress of the South African Society of Nuclear Medicine in Gqeberha and Pretoria, South Africa. In Pretoria, I was able to tour the under-construction NuMeRi facility, which will provide enabling support for health care research and development by South African researchers.

SNMMI has also continued its work to further the availability of nuclear medicine facilities in sub-Saharan Africa's least-developed countries. In early May, an SNMMI delegation visited the Korle Bu Teaching Hospital in Ghana, where they helped the nuclear medicine department perform Ghana's first myocardial perfusion SPECT imaging procedures and identified several opportunities to improve nuclear medicine capabilities.

The Nuclear Medicine Global Initiative continues its work. Current topics for the group include developing a global consensus on nomenclature for radiopharmaceutical therapies and creating a neuroblastoma registry for incidence and treatment. This year we have met with many ancillary imaging societies to strengthen our collaborative efforts to ensure appropriate patient care. Our patients benefits when all parts of the health care team work to educate each other.

SNMMI continues its work to educate patients and referring physicians about the role of nuclear medicine in diagnosing and treating disease. The 2023 Patient Education Day program has received more than 7,600 views to date. We recently presented a joint session at the North American Neuroendocrine Tumor Society Medical Symposium, where about 140 attendees learned about managing patients post-PRRT, and launched a roadshow targeting the oncology community on breast cancer imaging. This month we will present a satellite symposium on PSMA imaging and therapy at the Society of Urologic Oncology.

The SNMMI Consumer Awareness Campaign continues to be successful in educating the public about nuclear medicine and molecular imaging. In June, for example, a TV segment on prostate cancer was distributed to 192 news stations across the country. See this segment and others at https://ow.ly/RRm150Q0etK.

In June, SNMMI hosted nearly 8,000 physicians, technologists, pharmacists, laboratory professionals, scientists, and others at its 2023 Annual Meeting. The 2024 Annual Meeting will take place in Toronto, Ontario, Canada, on June 8–11. Registration will open in December.

In September, SNMMI hosted its Therapeutics Conference in Baltimore, Maryland, with nearly 350 nuclear medical professionals in attendance. The program included an outstanding lineup of speakers who discussed dosimetry, clinical trials and research, managing a therapy clinic, radiopharmaceutical supply challenges, and disease-specific radiopharmaceutical therapies.

The SNMMI Mid-Winter and ACNM Annual Meeting will be held February 1–3, 2024, in Orlando, Florida, and will feature 3 educational tracks highlighting the latest clinical innovations and techniques in the field, including a dedicated track on therapy. Early-bird registration for the meeting is open. SNMMI continues to offer a wide variety of online education offerings throughout the year, such as the Nuclear Medicine Review Course, Quality Systems Personnel Training Program, and a wide range of webinars.

These are just a few of the highlights of SNMMI's ongoing work to advance the field of nuclear medicine and molecular imaging. I look forward to sharing more achievements with you in 2024.