



Molecular Imaging . . . Realistically . . . An Evolution in Nuclear Medicine Practice

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Our mission: SNM will improve health care by expanding on our current expertise in functional imaging with nuclear medicine techniques to advance molecular imaging and therapy. Our vision: SNM will be the leader in advancing and unifying nuclear medicine, molecular imaging, and therapy. Our mission and vision will guide us to our intended future: one where we work together—with our medical colleagues—to best diagnose, treat, and manage disease with imaging biomarkers to optimize patient outcomes.

How do we get to this intended future? How do we move forward new imaging biomarkers and probes that improve outcomes for our patients? How do we bring these biomarkers and probes into the clinic? How do we build SNM as the knowledge leader in this field? Most important, how does our mission support our members in their efforts to improve health care and advance research? As I begin my term, I can assure you that the society has the knowledge, activities, and answers to advance our mission and vision for your professional benefit.

SNM is addressing the technological, regulatory, financial, business development, and evidence-based requirements to successfully integrate molecular imaging into medical care and the evolving field of personalized medicine by proving that it makes a difference to our patients. These activities are similar to the research needed to demonstrate the effectiveness and impact of PET. We need to demonstrate that evidence-based data support routine use of molecular imaging. This is critical in gaining acceptance from the oncology, neurology, and cardiology communities.

The development of this evidence—which involves a multidisciplinary evaluation of the medical, social, ethical, and economic im-

plications of our new discipline—is now our goal. There is no doubt that molecular imaging technologies will be effective, but we must develop our own peer-review criteria and evidence base. SNM is examining strategies for validating molecular imaging methodologies. We are working with representatives from the National Cancer Institute, the National Institute of Standards and Technology (a federal agency that promotes U.S. innovation and industrial competitiveness), and the National Institutes of Health to develop meaningful results and data so that these new imaging tests can be introduced as fast as possible into clinical practice—and also to ensure that current PET indications can be expanded. Our Molecular Imaging Center of Excellence (MICOE) Emerging Technologies Task Force will hold a workshop soon to discuss development of an in-house technology assessment mechanism and how to most rapidly bring new radiopharmaceuticals into the clinic. Specific outcomes of this workshop will be to outline critical issues, create position statements on how specific technologies can become viable, and agree on best approaches, critical tools, and benchmarks for early successes.

These successes will lead to the clinical use of imaging biomarkers. Imaging biomarkers are anatomic, physiologic, biochemical, or molecular characteristics associated with the presence and severity of specific disease states. The use of imaging biomarkers in medical practice offers tremendous potential for accelerating the development of pharmaceuticals and therapeutic devices and



Alexander J. McEwan, MD

(Continued on page 38N)

“We anticipate eventually providing neutron beams for 8 to 10 reactor cycles per year and no major shutdown for a beryllium reflector replacement until after 2020,” Smith said. “In the meantime, HFIR users will soon be able to access thermal and cold neutron beams of world-class brightness.” HFIR’s cold source will complement

the capabilities of ORNL’s recently completed Spallation Neutron Source, the world’s premier neutron science facility.

The fully instrumented HFIR will include 15 state-of-the-art neutron-scattering instruments, 7 designed exclusively for cold neutron experiments; new computer control systems; and

a new guide hall facility. Particularly prominent in the guide hall are the 2 new small-angle neutron scattering instruments, each terminating in a 70-foot long evacuated cylinder containing a large moveable neutron detector. The reactor also produces radioisotopes used in nuclear medicine.

Oak Ridge National Laboratory

(Continued from page 31N)

ensuring that the best treatment is given to the right patient at the right time. Our own Clinical Trials Group will facilitate the development of imaging biomarkers and new probes, and SNM has been involved in preliminary dialogues with officers at the U.S. Food and Drug Administration on this subject.

SNM is taking the lead in molecular imaging—through its “Bench-to-Bedside” fundraising campaign—to ensure high-quality, individualized care for patients and to prepare our members for the future. MICoE members have developed standard definitions and terminology; created a new Web site to provide online information, education, and training in molecular imaging; established a dialogue with funding agencies; hosted an expert/industry summit; created a “road show” that explains molecular imaging and what it means to the society; initiated outreach to referring physicians, patient groups, federal agencies, regulators, and the public; and launched proactive lobbying for reimbursement, research funding, and related issues. These educational activities are in addition to the long-standing educational and advocacy services it offers to all SNM members. MICoE also showcased the society’s Molecular Imaging Gateway at its Annual Meeting to demonstrate the collaborative approach that is necessary to take breakthroughs in molecular imaging into the clinical environment—and to bring these advances to a wider audience.

As always, the society continues its outreach to Capitol Hill, increasing dialogue with government and regulatory officers to provide guidelines for the development and use of current and new radiopharmaceuticals, our role in therapeutic drug development, and the creation of new diagnostics. SNM continues to dialogue with physicians, scientists, and technologists in related associations, including the National Coalition for Cancer Research, the American Society of Clinical Oncology, the American Society for Therapeutic Radiation and Oncology, and the American Association of Physicists in Medicine. Such relationships will significantly help advance our mission.

The society provides a unique knowledge base, and membership in SNM remains an essential part of our practice. SNM’s educational offerings are unparalleled, and its advocacy activities ensure that you are at the forefront of the profession as well as on the cutting edge of patient care. As always, SNM continues to ensure that every educational course offered (including our maintenance of certification programs), every message delivered to legislators and regulators, every product and service developed, every action taken to promote credentialing and standards is thoughtfully and intentionally provided to serve you, advance your value, and improve the quality of patient care.

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President, SNM*

(Continued from page 32N)

that is vital, credible, collaborative, influential, and evolving. Our redesigned logo, Web site, and e-mail and print communications honor the society’s 50-plus years of history—capturing many important aspects of our diverse community. In addition, SNMTS has drafted a strategic plan, thinking not only about the future but also examining the past to focus our energy, ensure that members are working toward the same goals, and assess and adjust our direction in response to a changing environment. *Have you considered volunteering to help?*

It is a great privilege to serve as your new president. I want to do all that I can during my term to move our society

forward with new and greater energy—to do more. I invite all members to provide feedback and suggestions, get involved in our society, and take interest in its governance. Together, if we pump long enough, hard enough, and enthusiastically enough, sooner or later the effort will bring forth the reward. I want to hear from you; you can contact me via e-mail at dgilmore@bidmc.harvard.edu. *How can we do more?*

*David Gilmore, MS, CNMT, NCT, RT(R)(N)
President, SNMTS*