Connecting Our Past With the Future

As medical practitioners, we seek to provide the highest quality patient care to improve the health of individuals and—ultimately—our society as a whole. Over the past few years, a biological and technological evolution in imaging has allowed us to examine the cellular or molecular basis of diseases—and explore its potential in managing and treating illnesses.

Molecular imaging, a new term to many, is quite familiar to those of us practicing in nuclear medicine. It is, in fact, a common thread that links our past with our future. "Twinkling atoms," as the late SNM historian William G. Myers frequently called radioisotopes, form the cornerstone of molecular imaging, but the term should perhaps refer to any atom attached to a molecule that provides a detectable signal, be it through fluorescence, bioluminescence, resonance relaxation, or form of contrast. We already know that patients with cancer, heart disease, stroke, or debilitating neurological conditions benefit from earlier, more accurate diagnoses and safer, more effective treatments when their medical care includes scanning technologies such as PET or SPECT with CT. The possibilities of molecular imaging in providing new insights, treatments, and diagnostic methods are limitless as scientific discoveries and technology continually increase. Molecular imaging now includes a number of related imaging technologies such as MR spectroscopy, optical imaging, and contrast enhancement using biologically active or "smart" agents. As these technologies enter the clinical arena, we will witness a paradigm shift in medicine and an evolution in the standards of patient care—and SNM is now positioned to stand front and center as the essential society to harness its power for the future of quality medical care.

More and more, molecular imaging will enable physicians to define disease in individual patients by relating location, function, structure, and biochemistry. Molecular imaging will be able to answer: What is the patient's problem? Where is that problem? Can anything be done about it? What is the best chance of treatment? Is a patient responding to a drug treatment? Does the treatment help? The effective drugs of the future will be designed for diseases defined at the molecular level, and treatment will be based on in vivo detection and monitoring of abnormal molecular processes using biomarkers and imaging.

SNM Evolves With Molecular Imaging

The research we read—published in our renowned journal and released in scientific abstracts at our respected educational meetings—is reported as advances in molecular imaging. The accreditation and certification/recertification processes we follow require updated knowledge of molecular imaging. It is undisputable that molecular imaging breakthroughs have in large part grown out of nuclear medicine tools and techniques, and so we realize that nuclear medicine has evolved into something larger than what the profession's pioneers envisioned. Our field has evolved into molecular imaging and will have a significant impact on health care over the next 5, 10, and more years, and SNM is the foundation for its continued progress. SNM's place is to coordinate, interact, communicate, and integrate molecular imaging with the entire health care system.

Peter S. Conti, MD, PhD
President, SNM

What we do these next few years will have a tremendous impact on the future of care for patients, as well as on our profession as a whole. Since SNM's members have the scientific and clinical backgrounds to advance the science, technology, and application of molecular imaging for patients, the society over the past few years has initiated—and is now accelerating—a transition of its programs and services to focus on molecular imaging modalities such as PET, PET/CT, SPECT/CT, MRI, and contrast ultrasound. More and more, you will see this emphasis in our educational programs, products, and services; our meeting abstracts; our expert speakers; our growing list of research grants and fellowships; and, perhaps, even in the very "look" and name of the society.

"Bench to Bedside" Launches

In a historic action, SNM's board of directors approved the launch of "Bench to Bedside: A Molecular Imaging Campaign" to raise $5 million over the next 5 years to support outreach activities to referring physicians and patient groups; fund translational clinical studies and small innovative trials; support advocacy for molecular imaging; and train the current imaging workforce and educate future generations of practitioners on the applications of molecular imaging.

During its 52 years, the society has never sponsored a fundraising effort of this magnitude, and the program has been jump-started with a generous $1 million pledge from

GE Healthcare. This special, concentrated fundraising initiative, which will be carried out in partnership with the Education and Research Foundation and which debuts at our Annual Meeting, brings molecular and nuclear imaging professionals together to take molecular imaging into the future, continuing the exploration of biological and technological innovations to fight diseases.

SNM leaders have been quietly working on this campaign for several months, and the early pledge from GE Healthcare signals that the initiative will be an overwhelming success. For more information on the program, visit SNM's Web site at www.snm.org/micampaign.

SNM Clinical Trials

Since its founding in 1954, the society has played a significant role in achieving important milestones that have greatly advanced our profession. Our pioneering thinkers have been—and continue to be—the driving force behind many biological and technological imaging advances.

The society sees as part of its role the responsibility to facilitate the movement of molecular discoveries made by the hands of a scientist at the lab bench into the hands of a physician treating sick patients with debilitating and incurable diseases. Health care innovations come from this "bench to bedside" approach, connecting or "translating" basic biomedical research into clinical research and then clinical practice. SNM hopes to help basic scientists see the potential clinical applications of research while enabling clinical researchers to glimpse what new findings are on the horizon with its initiation and development of the multicenter SNM Clinical Trials Group. This exciting initiative will create the opportunity for the society to contribute to current and future nuclear medicine clinical practice in a positive and unbiased way, allowing the continued success of nuclear medicine in clinical practice, in drug development, and in the evolving field of molecular imaging. Over time, these small trials are expected to encompass all the interests and possible applications of molecular imaging and diagnostic and therapeutic nuclear medicine.

Resources, Political Power, Allies

Physicians must be trained to become experts in all hybrid imaging techniques, and referring physicians must be educated on the benefits of molecular imaging. Our Learning Center—with its Web portal, workshops and symposia, and newly developed, self-paced online courses—and our Lifelong Learning and Self-Assessment Program modules are valuable, comprehensive educational tools that cultivate medical imaging professionals with modern knowledge and concepts.

The PET and Molecular Imaging centers of excellence—along with our various councils, committees, chapters, and individual members—are valuable resources. I want to applaud the work of the members who examined health care policy and practice issues, who wrote the first procedure guideline for PET/CT imaging with cancer patients, and who look to improve the profession as residents and interns.

The society is keeping its eye on what's going on at the national level, especially when it comes to funding basic science research through the Department of Energy and developing guidance documents for investigational new drugs and manufacturing practices for PET drugs. As SNM leaders continue to express our members' needs in talks with government and regulatory agency representatives, we collaborate with related allied organizations on issues such as developing uniform protocols for PET, MR, and CT imaging.

The society initiated a new industry partnership program aimed at encouraging collaborative efforts with the commercial sector to promote rapid advance and innovation in medical care through molecular imaging. SNM and industry will partner on a wide range of projects, promoting research grants and scholarships, advocating for reform on Capitol Hill, and providing continuing education opportunities. Industry and SNM leaders will discuss controversial topics involved in molecular imaging basic research, clinical issues, instrumentation, and drug discovery during an Industry Molecular Imaging Summit this year, and we continue to work with commercial representatives of the Nuclear Medicine Industry Leaders Working Group.

As my term as SNM president ends during this month's Annual Meeting in San Diego, I am optimistic about the future of SNM and its members. I want especially to thank several individuals for their support and guidance: my wife and family for their unending support and encouragement; my colleagues at USC for their patience and understanding; my predecessors, Mathew Thakur, PhD, and Henry Royal, MD, for their guidance and inspiration; my successors, Martin Sandler, MD, and Sandy McEwan, MD, with whom I have had a wonderful working relationship; the board of directors for their wisdom and courage; and, of course, Virginia Pappas, SNM chief executive officer, and her staff for the countless hours of help, guidance, and advice over the last 3 years.

By connecting SNM's past with the future, we will continue to see our membership grow and the number of our clinical procedures increase. I am confident that SNM will continue its longstanding commitment to embracing innovative ideas and seizing important opportunities, creating a tremendous impact on patient care.

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