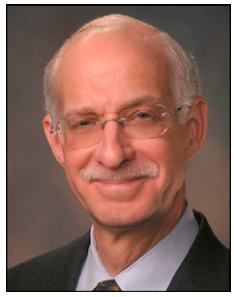
From AUR 2014: Leadership and Collaboration in Molecular Imaging

On April 4, 2014, a session focusing on molecular imaging was held at the Association of University Radiologists (AUR) annual meeting in Baltimore, MD. Speakers at the session, titled "Nuclear Medicine and Molecular Imaging of the Future: Leadership in Practice, Education and Research," included Jay Harolds, MD, a past-president of the Association of Program Directors in Radiology; Martin Pomper, MD, PhD, professor at Johns Hopkins Department of Radiology; Peter Herscovitch, MD, SNMMI president-elect; Mickey Guiberteau, MD, American Board of Radiology (ABR) president-elect; Eric Rohren, MD, PhD, American Board of Nuclear Medicine (ABNM) immediate-past-president; Vijay Rao, MD, Radiological Society of North America (RSNA) board member; and Bibb Allen, Jr., MD, chair of the American College of Radiology (ACR) Board of Chancellors.

Although most clinical molecular imaging (MI) studies are currently performed with nuclear medicine technologies, the presenters noted that MI encompasses many modalities, including PET, MR, SPECT, optical imaging, ultrasound, and emerging technologies. To optimize research, translation, and clinical use of MI, leadership from multiple organizations in radiology and nuclear medicine will be required. We must educate the public, referring physicians, political leaders, third-party payers, industry leaders, and regulatory bodies. MI leadership is shown by the ABNM and ABR in setting prerequisites for training, certifying individuals, having minimum competency standards for diplomates, and establishing curricula.

The knowledge tested by our boards influences what candidates study and what their teachers include in curricula. The ABR has included 3–5 MI items on each of its written diagnostic radiology exams in recent years. The Accreditation Council for Graduate Medical Education has also approved a 16-month focus on nuclear medicine for radiology residents leading to board eligibility for the ABNM exam if there is also a nuclear medicine residency program at the institution. Leadership is also demonstrated when our societies develop appropriate use criteria and procedure guidelines or parameters, as well as curricula. Societies promote education in many ways: at their meetings, in online course offerings, and through their websites and publications. The annual RSNA meeting features an MI/nuclear medicine campus. The ACR Education Center includes courses in MI and imaging biomarkers.

Societies also show leadership and advance the field of MI by promoting research through funding, journals, scientific sessions at their meetings, awards that recognize research accomplishments, and opportunities to learn about funding strategies and grant writing. Societies also establish organizations for research; e.g., the ACR has a strong research component including the ACR Imaging Network, and SNMMI has its Clinical Trials Network. At the June 2014 SNMMI meeting about two-thirds of the 2,300 presentations and posters focused on MI. Fifteen of the 22 original research papers in the March 2014 issue of *The Journal of Nuclear Medicine* were on MI. The ACR PET registry is an example of an initiative that has increased funding for PET scans and promoted research. An effort by the ACR and SNMMI aims to make guidelines and standards for MI as uniform as possible. Some societies lobby for initiatives in MI, often in cooperation with other organizations.



Jay Harolds, MD

The new paradigm in reimbursement is that imaging will have to show its value by improving patient outcomes. MI should do well with such a criterion, because more research is increasingly demonstrating its efficacy. The new SNMMI Evidence and Quality Department should be helpful in disseminating such information. The SNMMI FDA Task Force was formed to try to remove or minimize barriers to and delays in adoption of newer radiopharmaceuticals. The ACR/SNMMI PET/MR Credentialing Task Force has adopted a Joint Credentialing and Privileges Statement. The RSNA Quantitative Imaging Biomarkers Alliance seeks to "advance quantitative imaging and the use of imaging biomarkers," and the ACR cooperates with this effort. The RSNA also has an MI Committee.

The comments and interactions of all the speakers at the AUR meeting were positive, optimistic, and friendly. It was agreed that MI has an extraordinarily promising future and that collaboration between radiology and nuclear medicine physicians, scientists, and organizations will be helpful in moving MI forward. Many forums for such discussions exist, especially during meetings of the various organizations, such as the Intersociety Summit and the annual meetings of the SNMMI, RSNA, and ACR.

Jay Harolds, MD
Advanced Radiology Services and Professor at MSU College of Medicine, Grand Rapids, Michigan