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computer workstation. Using this "thin-client" approach, a workstation does not need large memory capacity, nor does the entire study have to be transferred to the workstation before the physician can begin review. Instead, resources are shared over the network, with processing performed at a central server. The flexibility provided in the interpretation process itself is rapidly expanding, with a trend toward the physician interacting with images as total volumes, from which he or she may choose how to view the image, how to "slice" it, and how to relate it to other images or supporting data.

Last year also saw the continued emergence of the central hospital electronic medical record as a requirement and a renewed emphasis on the importance of getting the information contained in that record to the workstation quickly and reliably to serve as decision support. At the workstation, speech recognition continues to make inroads against not inconsiderable resistance from many potential users. The trend is toward less emphasis on brute force vocabulary recognition and more on a model that recognizes that imaging specialists use a very limited number of words that can be recognized through natural language processing. Major improvements should be seen in 2005 in the overall speech recognition accuracy afforded by available technologies.

The emergence of computer-assisted diagnosis (CAD) in CT detection of lung nodules was widely noted in 2004, and several articles in the nuclear medicine literature cited the promise for CAD in this application with PET/CT. It is likely that CAD for lung nodule and pulmonary embolism detection will become commonplace among CT and PACS vendors in the near future, first as a second reader and later as a decision support mechanism to be used during interpretation.

Preparations for the impending requirements for compliance with Health Insurance Portability and Accountability Act (HIPAA) security regulations (April 2005) have had an effect on nuclear medicine departments in increased awareness of security issues, an interest in fault tolerance and disaster recovery readiness, and in the secure maintenance and generation of electronic teaching files.

As the rest of medical imaging joins nuclear medicine in "going digital," the emphasis on the importance of imaging informatics has increased. Several institutions, including my own, have formed dedicated imaging informatics research teams that bring physicians, physicists, information technology specialists, and others together to focus on emerging issues at this exciting intersection of medical practice and cutting-edge digital technologies.

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From the SNM Academic Council

The Academic Council provides a forum for members involved in nuclear medicine training and for those interested in the career development of young professionals during and after their educational programs. The council fosters education in nuclear medicine and provides outreach to other professionals and organizations whose work affects education and career development. The council also acts as a resource for SNM leadership and provides a forum for all who have involvement or interest in education and early career development of the next generation of nuclear physicians and scientists.

At the June SNM annual meeting in Philadelphia, PA, SNM leadership endorsed a plan for the Academic Council to become an "umbrella organization," including both the Nuclear Medicine Program Directors Association (NMPDA) and the Young Professionals Committee (YPC). I assumed the presidency of the Academic Council in June, and Darlene F. Metter, MD, became vice president. We have been charged with developing an active board of directors and a full slate of officers and with implementing plans for a revitalized Academic Council. The first council objective was to create a new organizational structure and update the Council Standard Operating Procedures (previously known as bylaws). A business plan was developed and submitted for funding approval. Part of this plan centered on better communication, and an online newsletter on the SNM site was launched in the fall. Three new list server e-mail communities have been developed through the SNM for the Academic Council, the YPC, and the NMPDA.

Both the YPC and NMPDA are quite active in their respective spheres. The NMPDA, which Michael M. Graham, PhD, MD, will continue to chair after completing his dedicated service as president of the Academic Council, has recently completed defining the requirements for the 3-year training program in nuclear medicine. The group will also devote attention to increasing meeting attendance by residency program directors and addressing areas such as teaching and evaluation of the 6 clinical competencies that will soon be an integral part of all medical training.

The YPC, under current chair Richard G. Lucas, MD, was formalized as an organizational part of the Academic

Council in 2004. The YPC had its roots in the Residents Committee, which prospered under the direction of Gina M. Caravaglia, DO, and Kelly H. Pham, DO. In August 2004, YPC members met with SNM leadership and Academic Council members to further define the role of the YPC within the Society. YPC members are residents, fellows, scientists, and physicians who are less than 10 years out of training. Among the goals of the group are better communication among young nuclear medicine professionals, promoting education and career development, and active participation in the continuing evolution of nuclear medicine. The YPC is also developing a survey of recent nuclear medicine graduates about their experiences in transitioning from training to practice positions.

All of our activities are designed to promote the Academic Council's goal of assuring the development of high-caliber individuals to lead in future clinical practice and research in nuclear medicine and to become tomorrow's leaders of the SNM.

Robert J. Lull, MD
President, SNM Academic Council

A Longer Look Back: The Computer and Instrumentation Council

The Newsline roundup provides an opportunity to look back at the accomplishments and challenges of the past year. The SNM Computer and Instrumentation Council (CaIC) recently took a much longer retrospective look in December 2004 by publishing a 14-year retrospective of the "best of the CaIC newsletter" since 1992. The CaIC's focus is on computers and nuclear instrumentation and their application in therapy, diagnosis, and nuclear medicine-based research. This focus has continued to evolve along with the rapid changes and new technologies that have radically altered nuclear medicine practice over the last decade. We continue to include original research and contributions as part of our newsletter, and, as outlined by this special issue's editor, Marke Madsen, PhD, the recent retrospective shows the range and quality of these articles. Among the "best of" the newsletter were Piotr Slomka's "RSNA '91–An Emerging Second Generation of Nuclear Medicine Computer Systems" (May 1992); Tom R. Miller and Jerold W. Wallis's "Thoughts about Iterative Reconstruction Algorithms" (March 1993); Mark D. Wittry, James W. Fletcher, J. Stephen Farris, and James L. Daly's "NIH Image as a Limited Nuclear Medicine Viewing Station" (May 1995); and Edward P. Ficaro's "Cardiac Quantitative Software" (April 2000). Under the able publication editorship of C. David Cooke, MSEE, our twice-yearly newsletter will uphold this tradition of excellence. We invite you to read through this "best of" newsletter; if you would be interested in receiving our semi-annual newsletter or would like to peruse the complete archive of newsletters, please join our Council to take advantage of this membership privilege.

The CaIC was active in 2004 and presented a full-day categorical session for continuing medical education credit at the SNM annual meeting in Philadelphia, PA. The course, titled "Modeling Cardiac Imaging: Building Scientific Advances into Clinical Application," was organized by S. James Cullom, PhD. The well-attended educational session included a mix of scientists from the field of image modeling and instrumentation and physician researchers. In addition, speakers from the National Institutes of Health outlined current initiatives for research.

Through the work of CaIC member Jerold Wallis, MD, the SNM has continued to work with the Integrating the Healthcare Enterprise (IHE) initiative to create a set of specifications that will enable more seamless connectivity and interoperability between nuclear medicine vendors and picture archiving and communications systems. This set of specifications is in the form of an IHE profile, titled the "NM Image Profile," and has been sent to vendors for implementation in a test environment.

The CaIC is also working as part of the steering committee for the Molecular Imaging and Radionuclide Therapy Trials Cooperative Group (formerly the Nuclear Medicine Clinical Trials Cooperative Group), to which we will provide advice on instrumentation, computer processing, and other technical issues.

Our Young Investigators' section continues to be active in attracting and recognizing new talent entering our technical field. The Computer and Instrumentation Young Investigators Symposium at the 2004 meeting showed once again the level of interest and ingenuity that a new generation of young researchers is bringing to nuclear medicine and its allied professions.

I. George Zubal, PhD
President, SNM CaIC