

## NUCLEAR MEDICINE COMPUTERS AND INSTRUMENTATION IN THE 21ST CENTURY THE FOCUS OF SNM MID-WINTER MEETING

**T**HE ELEVENTH ANNUAL Mid-Winter Meeting of The Society of Nuclear Medicine (SNM) next month in Dallas, Texas will feature a two-day symposium on new directions in computers and instrumentation in nuclear medicine. The symposium begins Monday morning, February 10, at the Hyatt Regency Hotel at Dallas/Fort Worth Airport.

"The meeting will highlight current research efforts that will define where nuclear medicine will be in eight to ten years," says program chairman Frederic H. Fahey, DSc, the secretary-treasurer of the Computer and Instrumentation Council, which co-sponsored the meeting.

The primary goal of the program is to detail new directions in the design and application of single photon emission computed tomography (SPECT), positron emission tomography (PET), and image processing techniques, according to Dr. Fahey, assistant professor of radiology at the Bowman Gray School of Medicine in Winston-Salem, North Carolina. In selecting lecturers, says the nuclear medicine physicist, "I was looking for people to focus not just on the research but on how their research will change clinical work down the road."

After presentations on the history of nuclear medicine instrumentation and computers, the program will delve into current issues such as quality control for existing SPECT systems and performance standards for PET. An update on the development of standard computer interfaces for medical imaging devices will be given by a member of the National Electrical Manufacturers Association (NEMA) and American College of Radiology (ACR) joint committee charged with establishing these standards.

### The Board of Trustees will tentatively consider the following issues at the SNM Mid-Winter Meeting

- Responding to the new Medicare fee schedule, relative value units, and new and revised CPT codes for reporting medical procedures.
- Gathering demographic data to represent the practice of nuclear medicine.
- Securing research funding for nuclear medicine from government and private sources.
- Strategic planning for the SNM and for the specialty of nuclear medicine.
- Training and credentialing for nuclear cardiology.
- Expanding medical education efforts for radiotherapy with unsealed sources and developing a verification process.

The future role of computers in medical education will be the subject of a luncheon presentation on the first day of the symposium. William Harless, PhD of Georgetown University in Washington, D.C. will demonstrate a patient simulation program complete with voice recognition capability and videodisc presentation of recorded model patients who respond to a student doctor's questions.

For insights into new ideas in SPECT instrumentation, symposium lecturers will present designs for a dedicated SPECT unit, a prototype combined SPECT and computed tomography (CT) system, and considerations for developing SPECT machines capable of such advanced feats as millimeter resolution.

PET researchers and designers at the symposium will discuss three-dimensional PET imaging, the development of parametric imaging, and a system developed at the University of Pennsylvania called Penn-PET, a less-expensive alternative to conventional PET scanners.

In the realm of computer processing,

the sessions will focus on existing shortcomings in clinical nuclear medicine and possible solutions via advanced data or image processing. Talks will include the use of artificial intelligence, the clinical role of adaptive filtering, and expert systems in medical practice.

The final session of the program will focus on new ideas in SPECT imaging. Presentations include brain imaging, an examination of the clinical role of quantitative SPECT, and iterative reconstructive algorithms for SPECT.

Before the scientific symposium, SNM and Technologist Section committees meet on Thursday, Friday, and Saturday, February 6-8, at the Hyatt Regency Hotel. The SNM Board of Trustees meet Sunday, February 9 starting at 9 a.m.

For further information about the SNM Mid-Winter Meeting contact The Society of Nuclear Medicine, Meetings Services, 136 Madison Avenue, New York, New York, 10016. Telephone 212-889-0717, or fax 212-545-0221.