TENTH ANNUAL SNM MID-WINTER MEETING SYMPOSIUM OUTLINES PRESENT AND FUTURE DIRECTIONS OF SPECT, PET, AND COMPUTERS

or the past decade, The Society of Nuclear Medicine (SNM) has held a Mid-Winter Meeting featuring an educational symposium that addresses issues of clinical significance. Continuing that tradition at the tenth annual SNM Mid-Winter Meeting, the SNM and its Computer and Instrumentation Council will detail advances in positron emission tomography (PET) and single photon emission computed tomography (SPECT) instrumentation and computers during a symposium to be held February 4-5 at the Hyatt Regency Westshore in Tampa, Florida.

Tom R. Miller, MD, PhD, chairman of the educational program, associate professor of radiology at Washington University in St. Louis, Missouri, says, "the meeting is designed to cover developments in SPECT, PET, and computers that have current applications or may have applications in the future." Dr. Miller also noted that the program incorporates several extensive panel discussion sessions, which "will emphasize practical issues in the development and validation of clinical software and other issues involving current computer and instrumentation hardware and software."

During the symposium's initial session, on the morning of Monday, February 4, speakers from clinical, industrial, and regulatory settings will discuss "Software and Hardware: Current Issues and Trends." Ernest V. Garcia, PhD, professor and director of research, division of radiological science, Emory University School of Medicine, Atlanta, Georgia, will begin this session with a presentation on guidelines for nuclear medicine clinical software development. Dr. Garcia says that the Food and Drug Administration (FDA) requires that there be

"mechanical guidelines" for the development of software programs, but the Computer and Instrumentation Council "would like to go a step further to come up with guidelines to document the science behind these programs." In addition to reviewing the FDA guidelines, the session will focus on scientific guidelines for programs that assist in the interpretation of images that separate normal and abnormal tissue and programs that quantify functional parameters.

Additional presentations during the Monday morning session will include an overview of commercial computers and cameras and an update on the American College of Radiology-National Electrical Manufacturers Association's (ACR-NEMA) activities relating to the development of nuclear medicine hardware and software standards. In addition, a luncheon speaker from Apple Advanced Technology Group, Cupertino, California, will provide a glimpse of computers in the 21st century.

The Monday afternoon session centers on "PET and SPECT: Future Directions." Speakers will discuss dedicated SPECT cameras, convergent beam tomographic systems, Compton scatter correction and iterative reconstruction methods for quantitative SPECT, advances in PET instrumentation and data processing, and physiologic modeling with a personal computer.

Tuesday's session reviews "Computers and Computer Processing in Nuclear Medicine: Today and Tomorrow." Speakers will outline: the MacIntosh and Reduced Instruction Set Computers (RISC) workstations as well as the X-Windows image display software, the applications of a highend workstation, an artificial neural



The Latin Quarter of Ybor City, Tampa.
(Courtesy of Tampa-Hilleborough Convention and Visitors Association.)

network approach to SPECT image reconstruction, principles and applications of three-dimensional displays, the registration of nuclear medicine images with computed tomography and magnetic resonance imaging, and the application of picture archiving and communication systems, or PACS.

For further information about the SNM Mid-Winter Meeting, contact: The Society of Nuclear Medicine, Department of Meetings Services, 136 Madison Ave., New York, NY 10016-6760; 212-889-0717; (Fax) 212-545-0221.