Nuclear Medicine, Stanford University, who will be speaking on "Efficacy and Cost-Effectiveness" at the Quality Guidelines in Nuclear Medicine Symposium this September, sees that the problem of interspecialty conflict can be solved another way. "Guidelines should not be made in a specialty group. It should do the background work," he said. "You have to split the labor and have specialty societies concentrate on operating characteristics of a test or treatment" and define the technical standards to be used, then have a general group like the AHCPR compile the guidelines. "It would be suspect for specialties to do this," he added, not only because they cannot avoid even an unintentional bias, but outsiders would consider them motivated by self-interest.

Whatever the final plan for generating practice parameters, it appears that health care reform will have some effect on how they are developed and implemented and that the AHCPR could play a crucial role. And apparently general and specialty societies will have to work out some kinks if the development and implementation process is going to run smoothly through the health care reform gantlet.

Lantz Miller

Annual SNM Fellowship Awardees Focus on Enhancing Clinical Applications

Medi Physics, Du Pont, and Mallinckrodt Fellowships boost young researchers

Kenneth T. Cheng, Ph.D.

THE SECOND ANNUAL SOCIETY OF Nuclear MEDicine/Medi-Physics Award for Innovation in Therapy in Unsealed Sources goes to an investigator seeking to improve radiopharmaceutical therapy by making target cells more sensitive to the radiopharmaceutical with taxol. The recipient, Kenneth T. Cheng, PhD, BCNP, —in the Division of Nuclear Medicine, Medical University of South Carolina, will apply the $30,000 grant to study clinical applications of taxol as a radiosensitizer for three particular therapeutic modalities.

Sponsored by the Amersham company, Medi-Physics, Inc., this award was first given last year to encourage advances in therapeutic applications of nuclear medicine.

Monoclonal antibodies as radioisotope carriers have recently been widely researched as potential nuclear medicine therapies. A molecular designer can make a "monoclonal" highly specific for a tumor cell recognition site and ideally bring an attached radioisotope directly to a tumor and to nowhere else. But immunological, physiological, pharmacological factors influence the antibody's tumor localization, and the radioisotope damages normal tissue. But making the tumor cells more sensitive to radioactivity may counteract some of these problems. Dr. Cheng is going to further the investigations he has already begun (using a 1993 SNM Research and Education Foundation grant) on taxol's role as a sensitizer. He will also test two other nuclear medicine therapies for taxol radiosensitization: ^{131}I-metaiodobezylguanadine (MIBG) and ^{89}Sr. This information on taxol's effectiveness as a radiosensitizer may improve these modalities' opportunities for clinical application.

Thomas Chen, MD

Habib Dakik, MD

David A. Mankoff, MD, PhD

DuPont Fellowship Studies Involve ^{99m}Tc Sestamibi

This year's DuPont Pharma Cardiovascular Nuclear Medicine Research Grants will go to an investigator studying the use of ^{99m}Tc sestamibi myocardial perfusion imaging to risk-stratify patients, and to another researcher also using ^{99m}Tc sestamibi imaging, along with rest-redistribution

^{201}Tl and dobutamine echocardiography, for determining myocardial viability. The first researcher, Thomas Chen, MD, senior cardiology fellow, Division of Cardiology, Department of Medicine, St. Luke's\Roosevelt Hospital Center (New York, NY), will apply his $25,000 award to a large follow-up study of patients with ischemic and nonischemic cardiomyopathy and evaluated with SPECT myocardial perfusion scintigraphy. The second awardee, Habib Dakik, MD, fellow in the Division of Cardiology, Baylor College of Medicine (Houston, TX), will apply his funds to ^{201}Tl, ^{99m}Tc sestamibi, and dobutamine echocardiography studies in 35 patients.

Du Pont Merck Pharmaceutical Co. sponsors the two grants "to provide funds, resources, for young [investigators] interested in pursuing cardiovascular nuclear medicine, depending on the project," said Naomi Alazraki, MD, chair of the SNM subcommittee that chose the awards. 1994 marks the second year the grants have been given.

Dr. Chen aims to assess how well ^{99m}Tc sestamibi SPECT can predict outcome in patients who have poor resting left ventricular function. He sets three research goals: to identify myocardial perfusion SPECT scintigraphic factors that differentiate patients with ischemic versus nonischemic cardiomyopathy; in a large-spectrum population of patients with ischemic and nonischemic cardiomyopathy, to assess how well ^{99m}Tc sestamibi myocardial perfusion SPECT adds incremental prognostic information to clinical data; and to evaluate prognostic information from the assessment of left ventricular contractile function by gated ^{99m}Tc sestamibi myocardial perfusion imaging. According to Dr. Chen, "Our study should provide a definitive analysis of the prognostic efficacy of stress myocardial perfusion SPECT in patients with poor LV function, by assessing its incremental prognostic information relative to that provided by the already available clinical information."

Using surgical-pathological methods, Dr. Dakik will evaluate how well three different diagnostic modalities determine myocardial viability. Because impaired left ventricular function is not necessarily irreversible, distinguishing nonviable tissue from viable in noncontracting or hypocontractile myocardial zones is a significant challenge for diagnostic medicine. Thus, Dr. Dakik's goals for his study are to characterize the pathological findings in myocardial segments that rest-redistribution ^{201}Tl or rest-gated ^{99m}Tc sestamibi SPECT or low-dose dobutamine echocardiography predict to be viable or non-viable; and to compare the sensitivity and specificity of these three modalities in predicting reversibility of myocardial dysfunction after revascularization surgery. According to Dr. Dakik, "This will be the first study to directly compare the efficacy of these techniques... in which myocardial viability will be defined in terms of the histologic features as well as the ability to regain contractile function after coronary revascularization."

Mallinckrodt Winner To Quantitate 11C Thymidine PET Imaging of Tumor DNA Synthesis

Research done under the 1994 SNM Mallinckrodt Fellowship may help answer the general question, "How well is a particular therapy containing a tumor?" Though some imaging techniques can give some anatomical evidence and other useful clinical results, it would be even more useful to tell right away—before the months before an anatomic change occurs—if cell proliferation is being stymied. David A. Mankoff, MD, PhD, resident in the Division of Nuclear Medicine, University of Washington School of Medicine (Seattle, WA), has already begun investigating the potential of ^{11}C thymidine PET imaging for identifying early responses to therapy. Now with the $30,000 grant funded by Mallinckrodt Medical, Inc., Dr. Mankoff will validate his model for 11C thymidine imaging, apply the model to patient images, and simplify the model for easier clinical use. ■

COMMENTARY

GOVERNMENT RELATIONS UPDATE

🏛 REGULATORY ACTIVITIES

NRC Training and Experience Criteria. On December 23, 193, ACNP and SNM mailed a letter to NRC suggesting that the current training requirements for the therapy uses of unsealed sources (particularly ^{89}Sr) were not sufficient to guarantee the safety of patients and the public. The letter pointed out that NRC's board certification requirements were more stringent that the current 80-hour requirement also used by NRC. The letter also expressed concern that mistakes will occur as a result of NRC licensing poorly qualified physicians.