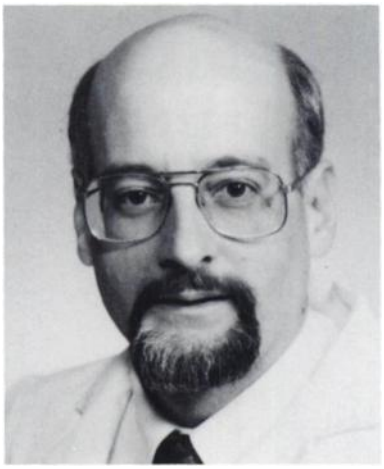
neering efforts in nuclear medicine instrumentation. One day, he came into my office and asked if I remembered the old panoramic camera for taking photographs of large groups, before the wide-angle lens was invented. Rather than plead ignorance, I told him I was too young. He explained that while the camera lens slowly panned the group one way, the film cassette slowly moved, in sync, the other way. He pointed out that if we could move the head of our Anger camera with the readout film (Polaroid in those days) moving synchronously, we could image the whole body. I suggested turning the camera head sideways and using the up-down head device to image a standing patient. This would also establish a fixed speed moving the detector. It only took our shop a few days to rig the Polaroid film-moving device. We were lucky to have a pediatric patient on whom to try it out—a small and cooperative child. The up-down head drive went high enough to encompass her completely, and within the week of our initial conversation, we had generated a moving camera head whole-body scan. The concept is still used widely today, often employing a track system to move the patient stretcher. In 1966, Paul presented the concept, with our first pictures, to the SNM. It took almost five years before the camera became commercially available. I am ashamed to say that initially I was reluctant to have in my nuclear medicine laboratory a device that took up 12 feet of floor space; but with the advent of gallium scanning and particularly the development of the technetium bone-scanning agents by Subramanian's group, the need became obvious.

Paul has made numerous instrumentation innovations. These range from pre-SPECT three-dimensional studies, to multiple efforts to improve collimators and detectors, to studies of modulation transfer function and ROC devices, to his latest interest in positron cameras.

The old single-wing football tailback had to be a triple threat. He had to run, pass, and kick. Dr. Harper, with similar contributions in intraoperative radioisotope therapy, radiopharmaceutical development, and nuclear medical instrumentation, is clearly a triple-threat nuclear pioneer. The Society is proud to select Dr. Harper as the George Charles de Hevesey Nuclear Pioneer Awardee in 1994. ■

AEBERSOLD HONORS NUCLEAR MEDICINE CHEMIST



Donald M. Wieland, PhD

A CHEMIST WHO HAS introduced at least three new classes of radiopharmaceuticals will receive this year's Paul C. Aebersold Award for Outstanding Achievement in Basic Science Applied to Nuclear Medicine. Donald M. Wieland, PhD, professor and director of radiopharmaceutical chemistry in the Nuclear Medicine Department, University of Michigan Medical Center (Ann Arbor, MI), "has had a great impact on nuclear medicine and science," said David E. Kuhl, MD, who will present the award to Dr. Wieland at the June 5 plenary session of SNM's 41st Annual Meeting in Orlando. The award is given in honor of Dr. Paul Clarence Aebersold, who made significant contributions to the application of nuclear physics to medicine and biology.

One of Dr. Wieland's most outstanding achievements is the development of M-iodobenzylguanadine (MIBG, which, coincidentally, just received FDA approval for commercial use). This radiopharmaceutical is used to visualize adrenal medulla, pheochromocytomas, and neuroblastomas. It is also used to treat metastatic neuroblastomas and to study sympathetic enervation of the myocardium. Dr. Wieland also devised ^{11}C- and ^{18}F-labeled PET tracers for adrenergic neurons in the myocardium. These tracers are helpful in studying cardiac arrhythmias following ischemia as well as spontaneous disorders of cardiac rhythm. And he developed radio-iodobenzovesamicol (IBVM), a new agent used for visualizing acetylcholine operations and vesicular transport in the brain. It holds potential in studying aging and Alzheimer's disease.

A Systematic Approach

"One characteristic of Don Wieland's career is he's very creative—and very imaginative," said Dr. Kuhl, who is professor of internal medicine and radiology and chief of the Division of Nuclear Medicine at the University of Michigan Med-

ical Center. "He has a systematic and thorough research approach. He proceeds from hypothesis to a structure/activity (from the structure of molecules to how they operate)." Basically, Dr. Wieland's research procedure involves looking at chemical relationships in designing new molecules and developing synthetic organic chemical strategies to make a labeled tracer product. He then tests these in animal models, modifies the molecular design to optimize tracer characteristics, and finally extends these to humans, and supports his colleagues in clinical trials.

"This has been a very effective" method, Dr. Kuhl said. "His rational radiopharmaceutical design of new imaging agents has made possible the assessment of biochemical pathways for the presynaptic sites of neurotransmitter storage and synthesis in brain, heart, adrenal medulla, and tumors."

Dr. Wieland grew up in Titusville, PA (where oil was discovered), received his BS from Edinboro State College in Pennsylvania in 1965, took a PhD in chemistry from West Virginia University, and did postdoctoral work at Wayne State University until 1972. That year, he went to the University of Michigan to pursue a Masters in biology, never to leave: from 1973 to the present, he has been in the Division of Nuclear Medicine at the University of Michigan.

He has served as president of the board of directors of SNM's Radiopharmaceutical Council, on the Scientific Programs Committee, and on several journal editorial boards. His bibliography shows 18 book chapters and 82 papers in scientific journals, and he holds three patents for his chemical inventions. His research is well-supported by NIH grants. At the University of Michigan, he has a reputation as an excellent and well-liked teacher, because he is known for explaining difficult topics in a way that people can readily grasp. ■

VISIONS AND REVISIONS: VIEWPOINTS ON NUCLEAR MEDICINE & HEALTH CARE REFORM

Part 1: Outcomes Research

As competing plans vie for attention, outcomes research, practice parameters, and physician workforce prove to be key points in the debate

Although health care reform movements and the strategies that medical societies use to meet the challenges existed long before President Bill Clinton's September 1993 presentation of his reform bill, these strategies have since come into the foreground of medical reform discussions. Medical groups are carefully eying outcomes research as a method to both pinpoint their most effective procedures and to point up the effectiveness of their practice in overall patient care. Practice guidelines promise a way to sift out the optimal procedures and suggest them to all nuclear medicine physicians—to both unify the specialty and perhaps help protect practitioners in malpractice cases. Discussions of the specialty physician workforce question the need and practicality of any policy that substitutes generalists for specialists. And vigilance over the several pieces of legislation currently sifting through Congress alert members of specialty societies about political developments and how to influence congressmen. The question remains, are these strategies being employed in such a way as to best pull a specialty like nuclear medicine through the gantlet and optimize health care provision in the US?

This four-part series will explore this question.

High Hopes

As opposed to the confined space of a clinical trial, outcomes research basically rests on the assumption that clinical practice itself should act as an experimental laboratory, where researchers examine databases or medical records retrospectively or track clinical practice concurrently. Outcomes research got a major boost in 1989, when Congress formed the Agency for Health Care Policy and Research (AHCPR). John Wennberg, epidemiologist and director of the Center for Evaluative Clinical Sciences, Dartmouth Medical School and a major proponent of founding the agency, had authored a prototypical outcomes study contrasting two benign prostate disease treatments in Canadian and European men—invasive surgery or a new noninvasive surgical technique, transurethral resection