PHILIP D. NICOL RECEIVES BERSON-YALOW AWARD FOR RADIOIMMUNOASSAY RESEARCH

The award-winning clinical investigation evaluates a highly sensitive new ventricular myosin light chain-1 assay for rapid diagnosis of acute myocardial infarction.

THE SCIENTIFIC PROGRAM Committee of The Society of Nuclear Medicine (SNM) has selected cardiologist Philip D. Nicol, MD, to receive this year's Berson-Yalow Award for his investigation that evaluates a new radioimmunoassay (RIA) for rapid diagnosis of myocardial infarction.

John W. Keyes, Jr., MD, chairman of the Scientific Program Committee will present the award at SNM's Annual Business Meeting in Cincinnati, Ohio. Dr. Nicol is an assistant professor of cardiology at the University of Toronto. His co-investigators are Ban An Khaw, PhD, Massachusetts General Hospital, and V. J. Sehgal, The Wellesley Hospital.

The award-winning study documents the clinical use of a new cardiac-specific ventricular myosin light chain-1 (VLC1) assay for rapid detection of myocardial infarction. Researchers at Massachusetts General Hospital initially engineered the assay, which uses a murine monoclonal antibody and an iodide-125 labeled synthetic peptide that is specific to ventricular myosin light chain-1, Dr. Nicol notes. For a prospective study, Dr. Nicol and colleagues collected sera from 18 patients whose previous acute myocardial infarctions had been documented. The researchers comparatively evaluated the patients by applying the conventional creatine kinase (CK) determination test as well as the new VLC1 marker. Upon admission, only seven of the 18 patients displayed elevated CK, while 10 showed elevated amounts of VLC1. "When using a combination of CK an VLC1 assays, 15 of the 18 patients showed measurable

levels of one or both markers at the time of admission," Dr. Nicol reports. "Apparently, a combination of CK and VLC1 assays produced superior diagnostic results compared to either assay used alone." A hospital can perform the VLC1 assay in two hours, and VLC1 levels remain elevated for up to ten days.

"Here we have a new, highly sensitive and specific test for a serious clinical problem—the diagnosis of acute myocardial infarction," says Dr. Keyes. "The test is positive early, can be performed rapidly and works independently of other markers for this disease." He says that the results presented in Dr. Nicol's abstract, "A Human Cardiac Ventricular Myosin Light Chain-1 Specific Single Monoclonal Synthetic Peptide Based Radioimmunoassay: Initial Clinical Results in Patients with Acute Myocardial Infarction," demonstrate the continuing value of RIA. The Berson-Yalow Award is given to the paper that best epitomizes the power and utility of these techniques, Dr. Keyes notes.

A native of Toronto, Dr. Nicol, 39, earned a bachelor's degree in science from York University in 1974, and a doctorate from the University of Toronto in 1981. In five years he advanced from an internship in medicine to senior cardiology resident, working at three Toronto hospitals: Toronto General, St. Michael's, and The Wellesley. He received hospital and academic appointments at various Ontario medical institutions, and served a three-year research fellowship at Harvard University, Boston. Dr. Nicol is a fellow of the Royal College of Physicians and Surgeons of Canada.
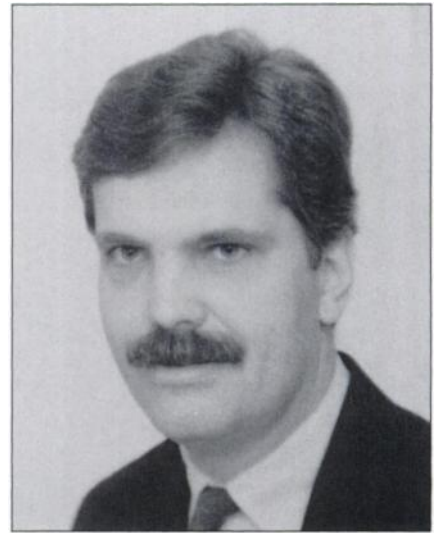
Philip D. Nicol, MD

His research explores a variety of uses of monoclonal antibodies in cardiovascular studies. For example, he is using antimyosin imaging to investigate the immunologic mechanism of myocarditis and reperfusion injury following myocardial ischemia.

The Berson-Yalow Award commemorates Rosalyn S. Yalow, PhD, and the late Solomon A. Berson, MD, who together developed RIA technique in the 1950s. SNM established the award in 1977, the year that Dr. Yalow received the Nobel Prize for Physiology and Medicine. Judges for the award choose the investigators who submit the most original abstract for presentation at SNM's annual meeting, and who have made significant contributions to basic or clinical RIA research, or any area of research using the indicator-dilution method.