recent years one of his consuming interests—of which there were many, including poetry, painting and a barbershop quartet—was to study the biophysical basis of cellular processes in the hope of one day contributing to an understanding of cancer. At one time Pohl was a regional director of the Oklahoma laboratory of the National Foundation for Cancer Research, and he established the Pohl Cancer Research Lab in Stillwater. Having been stricken as he worked in his lab, he was committed to his research to the last breath of his life; quite a few of his contributions are awaiting posthumous publication.

PAUL A. WESTHAUS
N. V. V. J. SWAMY
Oklahoma State University
Stillwater, Oklahoma

Robert Narvaez Little Jr

Robert N. Little, professor of physics and science education at the University of Texas at Austin and an internationally renowned leader in physics education, died in Austin on 21 May 1986 at the age of 73.

Little was an experimental nuclear physicist. His first research was on fast-neutron scattering from heavy elements. He began this work as part of his PhD dissertation, which he completed in 1943 at Rice University, and it provided the basis of all his latter scientific interests. He returned to these studies at Texas after a brief period as an assistant professor at the University of Oregon and as a research scientist working during World War II on airborne fire-control systems. In the late 1940s and early 1950s, he performed some of the early measurements of polarized neutrons from D–D reactions. Later his interests turned to reactor physics, particularly to the design of lightweight reactors for portable and airborne systems. He carried out this work through consulting arrangements with a number of laboratories, including Los Alamos and Sandia National Labs and the Bendix, Texas Nuclear and Kaman Nuclear corporate labs. In 1953 he joined General Dynamics in Fort Worth, serving as chief of nuclear physics until 1955, when he returned to the University of Texas as professor of physics. From 1955 to 1973 he served as the University of Texas representative on the Council of Oak Ridge Associated Universities.

For the latter half of his life Little's primary interest, and the focus of his efforts, was increasing the use and understanding of physical science in two special areas: pre-college instruction, and education and research in

Central and South America.

In the late 1950s, concerned that precollege science instruction was not effective in interesting young people in science, he began a project that was to dominate the remainder of his life. Together with Tom Slater from the Texas Education Agency, Jack Montague of the University of Texas Science Education Center and Max Bolen of the University of Texas at El Paso, he worked to develop a new instructional format for the teaching of middle school science in Texas. Anticipating current trends based on the psychological insights of Jean Piaget by using discovery methods with a strong emphasis on observation of phenomena, they prepared materials for a course that would replace composite introductory science at this level. Not content merely to write up a course description and prepare several classroom exercises, Little worked to transfer it effectively to the schools. He began by taking time from his busy schedule at the university to teach the course at a nearby school; he organized, sponsored and participated in numerous teacher workshops; he introduced into the university's curriculum a course, based on similar methods, that introduced future teachers to the physical sciences in the same phenomenological, intuitive way; he forcefully and effectively carried his message to the national level at colloquia and meetings. Although one cannot make a quantitative estimate of Little's impact at the national level, today 90% of the students in Texas take this ninth-grade physical science course.

At the same time that he was working to develop this new instructional format, Little worked hard to support other efforts to promote quality science instruction. He was a leader in the development of the Texas section of the American Association of Physics Teachers, serving as its chairman from 1958 to 1960. The special significance of his work was recognized in 1978 when he was selected by the Texas section of AAPT as the first recipient of its award for outstanding contributions to physics in higher education in Texas. He served on the editorial board of *The Physics Teacher*, chaired the AAPT committee on international physics education and was elected as the 33rd president (1970–71) of AAPT.

His interest in promoting the quality of physics instruction and research in Central and South America stemmed from his Texas origins (he was born in Houston on 11 March 1913) and his ability to speak Spanish. He felt that the University of Texas was uniquely situated to assist in the development of science in Central and South American

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countries, and that an indigenous strength in physics would be a prerequisite to that development. He was able to support these beliefs effectively with specific actions. In the early 1960s he was a member of a mission to evaluate multinational physics projects of the Organization of American States. His close involvement with physicists and physics teachers in Central and South America and the Caribbean continued to grow throughout his lifetime. Most of his summers for the past 20 years were spent working with fellow physicists and physics teachers in workshops in this region. He was a founding member of the Sociedad Centroamericana y del Caribe de Fisica and the prime mover behind the recent establishment of the Congreso Inter-Americano de Enseñanza de la Fisica, which will hold its first conference in Mexico in 1987. Through his goodwill, numerous students from Central and South America traveled to Austin to pursue graduate level studies in physics and returned home to teach and do research in physics and to strengthen the ties of friendship in our hemisphere. When Little began his involvement with the Organization of American States's mission to evaluate physics projects, they "found that no one had a physics background in the Central American universities; all the physics teachers had degrees in engineering, mathematics or pharmacy." The dramatic improvement that has occurred in the 25 years since is due in large measure to the efforts of our colleague.

Little was an active teacher and tireless colleague up until his untimely death; we never saw him idle. He introduced a new upper division physical science course into the curriculum during this last spring semester. He constantly reminded us of the importance of making science accessible and then he showed us how it could be done. The void left by his passing cannot be

filled. The best we can do is work around it.

JORGE ANTILLÓN
Universidad del Valle
Guatemala, Guatemala
ROBERT BECK CLARK
Texas A&M University
College Station, Texas
AUSTIN GLEESON
University of Texas at Austin

Marc de Hemptinne

Marc de Hemptinne, professor emeritus of physics at the Université Catholique de Louvain, Louvain-la-Neuve, Belgium, died on 1 April 1986.

De Hemptinne was born in Ghent, Belgium, on 6 April 1902. Initially a chemical engineer, he obtained his PhD in physics and mathematics in 1926, at the age of 24. After studying with Victor Henry at the University of Zurich, he joined the Université Catholique, where he became a full professor in 1931.

De Hemptinne's main research interest was molecular spectroscopy. He took advantage, in particular, of the new possibilities offered by isotopic separation to substitute various atoms in complex molecules and so obtain novel information on their structure. Later he also pioneered various investigations on the chemical effects of lasers, observed through modifications of molecular spectra in both the microwave and infrared regions.

As head of the Physics Institute at the university, he kept an eye on the various new tools that developed in particle physics. Informed by Ernest O. Lawrence of his newly invented cyclotron, de Hemptinne started the construction of such a device in Belgium; due to the war this project could be completed only in the late 1940s. Around this cyclotron he developed the first nuclear physics research team in Belgium, which became active in both nuclear spectroscopy and nuclear reactions.

De Hemptinne was a leading figure in nuclear and elementary-particle physics in Belgium: A member of the Belgian Royal Academy and of various funding agencies, he was also the Belgian delegate to the first CERN Council (1954–57). He was instrumental in the development of the Centre d'Etudes Nucléaires, the Belgian research center for reactor technology. Before retiring in 1971, he obtained funding for an up-to-date isochronous cyclotron at the new Louvain-la-Neuve campus of the university.

JULES DEUTSCH
PIERRE MACQ
Université Catholique de Louvain
Louvain-la-Neuve, Belgium □