

Hermann Rahn

1912-1990

Hermann Rahn, Distinguished Professor of Physiology at the State University of New York at Buffalo and 36th President of the American Physiological Society, died in Buffalo on June 23, 1990.

After receiving his AB degree from Cornell University in 1933 and his PhD from the University of Rochester in 1938, Hermann Rahn completed his education as a National Research Council Fellow at Harvard. In 1939 he was appointed Instructor in Physiology at the University of Wyoming, and in 1941 he accepted a fellowship in the Department of Physiology at Rochester under Wallace Fenn. He eventually became a member of the Department, rising to the rank of Associate Professor and Vice-Chairman before accepting the Physiology chair at the University of Buffalo (later incorporated into the State University of New York system) in 1956.

Hermann Rahn gained national and international fame as a member of the "Fenn, Otis and Rahn" team which, while assisting in the war effort in 1941-1945, developed some of the fundamental concepts in respiratory physiology. It is during that period that the group described the pressure-volume relationship of the respiratory system, the oxygen-carbon dioxide diagram, alveolar gas composition in a variety of conditions, respiratory effects of low and high pressures, and — simultaneously with but independently of Riley and Courmand — the effects of uneven distribution of ventilation and blood flow in the lung. Although Rahn remained a man of many interests and continued to publish in different fields, environmental physiology and ventilation-perfusion relationships were the two areas that claimed most of his time during the next twenty years and in which he achieved



universal acclaim. In the 60s, Hermann Rahn turned his attention to comparative physiology, dealing successively with acid-base balance, respiration in aquatic species and in animals in transition from water breathing to air breathing, and to the physiology of the avian egg. In each of these, he made stellar contributions.

Hermann Rahn's achievements brought him significant marks of recognition. At his university, he was made a Distinguished Professor and was awarded the Chancellor's medal; in his professional field, he first became President of the American Physiological Society and then Vice President of the International Union of Physiological Sciences. In addition, he was the recipient of four honorary doctorates and was granted a Humboldt Senior Fellowship. Last but not least, he was elected to the National Academy of Sciences and to the Institute of Medicine.

To achieve all this, an individual must

have a number of outstanding qualities. In Hermann Rahn's case, in addition to an energetic nature, a broad interest in life sciences and a fertile imagination, there was a unique ability to apply to physiology concepts and ideas from other fields of science, be it physics, mathematics, or chemical engineering. However, looking only at the scientific attributes of the man would lead one to neglect the humane qualities of someone who was fundamentally interested in nature and in all human beings he encountered, *as individuals*.

The last few months of life were not kind to Hermann Rahn but were unable to decrease his scientific enthusiasm and curiosity: he attended the FASEB meeting in Washington in April and reduced data and revised one more manuscript less than two days before his death. He remained fascinated with everything new he saw in the hospital and insisted on understanding how each of the gadgets worked.

With the death of one of the few remaining giants of the 1940-1945 era, physiology has lost a champion and a role model. The numerous students that Hermann Rahn trained over nearly half a century will consider it their duty to uphold his memory by following his example.

The Department of Physiology at Buffalo, a department that will long bear Hermann's imprint, has set up a Memorial Fund, the proceeds of which will be dedicated to improving scientific communication through lectures, symposia, and visiting professorships. Anyone wishing to contribute should send a tax-deductible contribution to The Hermann Rahn Memorial Fund, Department of Physiology, 124 Sherman Hall, University at Buffalo, Buffalo, NY 14214.