

## Robert W Berliner

1915-2002



Born on March 10th 1915 in New York, Bob Berliner graduated from Yale College in 1936 and completed his medical training at Columbia University. His early medical staff positions were spent in New York at the Presbyterian

Hospital and the Goldwater Memorial

Hospital. It was at Goldwater where he began his research career. Following a further period at Columbia as an assistant professor, in 1950 he was invited to join the National Institutes of Health to develop the Laboratory of Kidney and Electrolyte Metabolism. He was director of the Laboratory for 12 years. It was during this period that Berliner attracted to NIH many outstanding colleagues including Knut Aukland; Barry Brenner; James Dirks; Rex Jamison; Frank Knox; Trefor Morgan; Fuminori Sakai and Fred Wright, all of whom went on to become leaders in the field. Berliner was also a driving force in forming the NIH into one of the leading biomedical scientific institutions in the world. Between 1954 and 1968 he served as director of intramural research and in 1969 was appointed as the first NIH Deputy Director for Science.

A combination of thorough theoretical scrutiny and practical application of whole kidney clearance approaches were the hallmarks of Berliner's work, which was central to the formation of early concepts of how potassium, sodium and hydrogen are transported by the kidney. Berliner's many contributions provided the foundations for later work on single tubules and isolated cells of both the proximal and distal nephron. His analysis of the possible rates of hydration of carbon dioxide in the tubular lumen was an important input to the then strong debate surrounding the mechanisms by which bicarbonate is reabsorbed by the proximal tubule. Berliner also demonstrated that the process of potassium secretion is induced by dietary potassium loading and that this is the major pathway for potassium excretion by the kidney. Potassium is secreted in exchange for sodium; a process that is sensitive to alterations in acid base balance.

In 1973 he left the NIH to return to New Haven as Dean of the Yale University School of Medicine until his official retirement in 1984. His retirement undoubtedly allowed him more time to indulge his fondness for bird watching. In this context, "fondness" may be something of an understatement. His passion for this activity is signified by his official portrait in the Yale Medical School in which he is pictured not in one of the stereotypical academic poses, but standing next to an open window, a pair of binoculars in hand.

His many scientific contributions were emphasised by numerous honours and awards. These included election to membership of the National Academy of Sciences, receipt of the Homer Smith Award of the American Society of Nephrology; the Raymond C Daggs Award of the American Physiological Society; the AN Richards Award of the International Society of Nephrology and the George M Kober Medal of the Association of American Physicians. Yale University honoured him by endowing the Robert W Berliner Chair of Cardiology and Diagnostic Radiology. His close links to Physiology at Yale were emphasised by the creation of the Robert W Berliner Lectureship in Renal Physiology. Bob Berliner was a physician scientist who undoubtedly was one of the founding fathers of modern renal physiology. He will be missed by all who have had the benefit of scientific or social interaction with him. He died on February 5th aged 86 and is survived by his wife, Leah, and their four children, Robert Jr., Alice, Henry, and Nancy.

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