

**MEMORIAL RESOLUTION OF THE FACULTY
OF THE UNIVERSITY OF WISCONSIN-MADISON**

ON THE DEATH OF PROFESSOR EMERITUS JAMES M. B. BLOODWORTH JR.

James M. B. Bloodworth Jr., born in Atlanta, GA, on February 21, 1925, died September 22, 2006. After undergraduate study at both Emory and Stanford universities, he received an M.D. degree from Emory University in 1948 and pursued pathology residencies at Columbia, Iowa, and Ohio State universities. Bloodworth began his academic career at the Ohio State University College of Medicine. From 1962 until his retirement in 1995, he was a professor of pathology at the University of Wisconsin; he also served as chief of laboratory service at the William S. Middleton Veterans Hospital until 1989.

When the University Hospital moved to its current location in 1979, Bloodworth became director of the combined autopsy service of University of Wisconsin Hospital and the Veterans Hospital. As the senior forensic pathologist, he also provided consultation to many Wisconsin county coroners. He was an active member of many professional societies including the American Society for Experimental Pathology, the Endocrine Society, the American Diabetes Association, the Society for Experimental Biology and Medicine, and the American Society of Clinical Endocrinology. He served as president of the Wisconsin Society of Pathologists from 1978 to 1980.

His medical student teaching included courses in general pathology and in the interdisciplinary curricula for the cardiovascular, renal, and endocrine systems. In addition, he devoted a great deal of time to one-on-one instruction for pathology residents on the autopsy service and to the medical staff and students interested in clinical-pathological correlations. To improve diagnostic accuracy, Bloodworth introduced the use of electron microscopy to the practice of anatomic pathology.

Dr. Bloodworth's research interests were in three related fields – diabetes mellitus, endocrinology, and renal pathology. Through the years, the bulk of his research centered on the pathogenesis and complications of diabetes. Induced diabetes in dogs was used as a model to study histopathologic and ultrastructural changes that ensue in the kidney and microvasculature throughout the body. He employed both histochemistry and electron microscopy to study lesions of the pancreatic islet cells that are sources of several important hormones. In the animal model, he was also able to produce changes in the glomeruli of the kidney that mimicked lesions seen in the kidneys of humans with advanced diabetes.

Perhaps Bloodworth's major contribution to our understanding of the pathogenesis of diabetes resulted from his studies on the morphologic changes that occur in a variety of organs. Throughout the body, damage is primarily the result of changes produced in the microvasculature. For many years, it has been recognized that diabetics suffer from the complications of early onset arteriosclerosis in large blood vessels. Bloodworth and others, however, focused on diabetic microangiopathy changes occurring in small vessels and capillaries. One abnormality in diabetes is small vessel thickening as well as proliferation of the basement membrane in capillaries, especially in the kidney and the eye, where Bloodworth directed much of his research. His studies of diabetic retinopathy, in collaboration with colleagues from the University of Wisconsin Department of Ophthalmology and Visual Sciences, defined the progression of changes that lead to hemorrhages, plaques, exudates, and other lesions in the retina that may result in severe visual loss. Their experimental studies in the dog showed that meticulous control of blood sugar metabolism would largely prevent diabetic microangiopathy. For his significant contributions to the understanding of the progression of diabetes, Bloodworth received the Lilly Award from the American Diabetes Association in 1963. In 1965, he was a co-recipient of the Fight for Sight Award from the National Council to Combat Blindness and the Association for Research in Ophthalmology.

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Bloodworth's studies and professional activities included other areas of pathology, especially relating to endocrine organs. In 1968, he edited a major book entitled *Endocrine Pathology*, in which he authored or co-authored several chapters. This publication was an important contribution to the field of endocrinology. Subsequent editions of this book were edited by Bloodworth and colleagues.

Dr. Bloodworth was also a good citizen of the greater Madison community. He served on the Fitchburg Emergency Medical Service and was involved in the Dunn's Marsh/Allied Drive Neighborhood Association. He was a 54-year member of the Madison Gyro Club and the Fitchburg-Verona Rotary Club.

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