## Jay Bernstein, MD, 1927–2009

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ay Bernstein, MD, one of the founding members of the Renal Pathology Club/Society, passed away on February 26, 2009, after an extended illness. Dr Bernstein played a pivotal role in discovery in nephropathology during the infancy of the field with his involvement in the International Study of Kidney Disease in Children, the Southwest Pediatric Nephrology Study Group, the World Health Organization Committee on Classification and Nomenclature, and the Lupus Nephritis Collaborative Study Group, to name a few, but he will be most remembered for his enormous influence on pediatric nephropathology. The magnitude of his literature contributions on pediatric renal disease is staggering. He published more than 300 peer-reviewed articles and book chapters. In these works, he critically investigated the most rare, complex, and, for many, perplexing developmental renal and genitourinary diseases. During a 30-year period from the 1970s through the 1990s, nearly every textbook containing a chapter on cystic, congenital, or hereditary renal diseases was authored or coauthored by Dr Bernstein.

Dr Bernstein was born in Brooklyn, New York, on May 14, 1927. He received a BA degree from Columbia University (New York, New York) and his medical degree from State University of New York Health Science Center, Brooklyn. His postgraduate training occurred at Peter Bent Brigham Hospital, Boston Lying-in Hospital, Free Hospital for Women, and Children's Hospital Medical Center, all in Boston, Massachusetts. During his career, Dr Bernstein held academic appointments at Harvard Medical School, Boston; Children's Hospital of Michigan, Detroit; Wayne State University School of Medicine, Detroit, Michigan; and Bronx Municipal Hospital Center, Bronx, New York. During the period from 1962 to 2001 he also held associate and assistant professor appointments and a visiting professor appointment at Albert Einstein College of Medicine, Bronx, New York. In 1969 Dr Bernstein was named chair, Department of Anatomic Pathology, William Beaumont Hospital, Royal Oak, Michigan, a position he retained until retirement in 1989. He then became director of the Research Institute, William Beaumont Hospital, a position he held until 1998.

In 1983 I was fortunate to serve as Dr Bernstein's renal fellow. I acquired an interest in nephropathology early in

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Jay Bernstein, MD

my residency. My department lacked a trained nephropathologist. To fill this void, during my second year of residency I volunteered to collate the light microscopy, immunofluorescence, and electron microscopy data on renal biopsies for a weekly sign-out provided by a nephropathologist who practiced at another hospital and organized a renal biopsy conference for the renal division. Although my knowledge at the time of my fellowship was still rudimentary, I was well versed in the basic diseases. I was promptly introduced to the vastness of renal pathology, particularly the arena of rare pediatric diseases, when I reviewed my first consultative case with Dr Bernstein, namely, an example of oligomeganephronia. Naturally, I did not know the correct diagnosis nor was I even aware of the existence of such an entity. This launched my exposure into the world of Dr Bernstein's complex consultative service and also prompted many hours of my poring through his extensive, seemingly endless reprint files.

Dr Bernstein was a perfectionist. He demanded flawless histologic and frozen sections, beautiful histochemical and immunofluorescence stains, and optimum electron microscopy fixation and sectioning. He provided immediate feedback when renal biopsy quality lapsed, which ensured great care and vigilance by his staff. His high standards of visual imagery carried over to his elegantly illustrated published works. Not surprisingly, he was an avid and adept photographer and collector of numerous antique cameras; many dated to the early 1900s or earlier.

During my fellowship, I quickly learned and repeatedly witnessed that Dr Bernstein was not just a nephropathologist. Dr Bernstein was a gifted anatomic pathologist whose diagnostic skills and insights ranged far beyond the

kidney and genitourinary tract. I had completed a residency at the University of Iowa, Iowa City, where weekly "gross unknown conferences" were a point of emphasis and I felt comfortable with gross differential diagnosis. However, when Dr Bernstein attended gross conference, the differential diagnosis was often taken to a higher level and refined to a final histologic diagnosis. Dr Bernstein perceived gross subtleties missed by other attending physicians, which permitted him to surmise histologic features and, thereby, to render the correct final diagnoses. Often, I couldn't appreciate these defining features, even when pointed out by Dr Bernstein, and I was left in awe on many occasions.

Dr Bernstein possessed extraordinary clinical acumen, more than any other nephropathologist I've known. This vast clinical knowledge, however, had one minor downside. Clinicians were frequently intimidated by Dr Bernstein, who seemed better versed in their discipline than they. The clinicians, therefore, often inquired about his schedule, and their involvement in renal biopsy conference seemed to alternate with his. This inspired me to cultivate greater clinical insight, a skill that separates the good from the exceptional anatomic pathologist.

Dr Bernstein did not train many fellows, no more than half a dozen or so (there is no record of the actual number). This is regrettable, as it limits his diagnostic legacy. Few pathologists, possibly none today, have his encyclopedic knowledge of developmental pathology and its mishaps, or are so thoroughly conversant with both the clinical and morphologic subtleties of rare pediatric renal disorders. Admittedly, it would likely take a multiyear fellowship for someone to assimilate the decades of experience that Dr Bernstein possessed. Although there are very good pediatric nephropathologists, few have been exposed to the wealth of exotic cases that were Dr Bernstein's daily menu for decades. There is no single individual today who has filled the diagnostic void created by Dr Bernstein's retirement more than 10 years ago. Evidence of our misfortune is known to those who have sampled Dr Bernstein's consultative service. His written consultations, often in letter form, were themselves worthy of publication. They contained detailed responses addressing any and all questions posed by the submitter, as well as an erudite discussion of his observations and conclusions. I suspect that there may never be another individual of his stature in pediatric nephropathology.

My article on classification of cystic and developmental diseases in this issue adopts and builds upon many of Dr Bernstein's conceptual constructs, while attempting to serve as a temporary bridge to the future when molecular-based schema will take center stage. I dedicate this issue to Dr Bernstein. I know that I cast but a faint shadow of Dr Bernstein's excellence, but wish to express deep appreciation for the knowledge and insight he conveyed, the role model he provided, and for his influence on my career and on the field of nephropathology and developmental pathology.