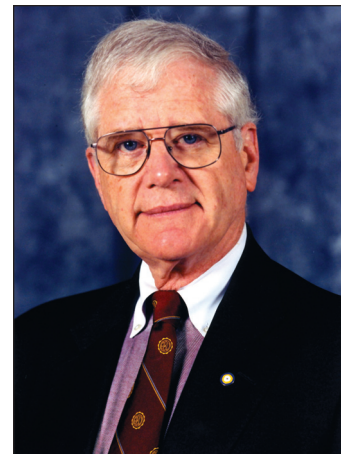

LEGENDS IN UROLOGY

*E. Darracott Vaughan, Jr., MD
James J. Colt Professor of Urology
Chairman Emeritus, Department of Urology
Senior Associate Dean for Clinical Affairs
Weill-Cornell Medical College
New York, New York, USA*



I join the other contributors to “Legends in Urology” to say I was surprised and honored when Dr. Gabriel Haas asked me to contribute to this portion of *The Canadian Journal of Urology*. I also am not quite sure what the definition of a legend is, however, on the north fork of Long Island, Legends is an excellent seafood restaurant in New Suffolk.

I grew up in a medical family with a father and uncle as physicians, and two great grandfathers. In fact, I still have the saddlebags of my great grandfather who was a horse and buggy doctor in the valley of Virginia. So I never thought of anything but medicine. I attended Washington and Lee University, and my medical school acceptance was salvaged by Dr. Keith Shillington. He literally tied me to a desk to study organic chemistry, and after doing well, I was accepted to the University of Virginia for medical school. Those days were interesting. I applied to only two colleges and two medical schools. However, before attending Virginia, my father was able to get me a job as a scrub nurse at Richmond Memorial Hospital in Richmond, Virginia. While there I first was impressed with urologists who often made a small incision after looking at a KUB on the view box, performed a quick finger dissection, asked for a Babcock and scalpel, extracted the stone, placed a drain, and closed. In contrast, the general surgeons often did an “exploratory celiotomy” for “abdominal pain”, looked around the abdomen for a while, usually removed the appendix, and then quit without a definitive diagnosis. In fact, I read Dr. Austin Dodson’s excellent textbook of urology before I entered medical school.

At the University of Virginia, one of the most impressive individuals I met was Dr. Albert Paquin, and it turned out that the entire urology department at that point (Dr. Paquin, Dr. Arthur Wyker, and Dr. Myron Walzak), had trained in New York under the great Dr. Victor Marshall, and little did I know that some 15 years later, I would end up at the New York Hospital Cornell Medical Center, where they all trained. We are all influenced by others, or as it has been stated, “we stand on the shoulders of giants”, and I was influenced early by Dr. Paquin. I took an elective in urology, and by my senior year I had told him that I was interested in urology and wanted to return there to train. After two years at Vanderbilt under the leadership of Dr. H. William Scott, I returned to Virginia. Unfortunately, Dr. Paquin had died, but the new leadership was superb with Jay Gillenwater as Chairman.

The first year of the University of Virginia residency program was in the laboratory and I elected to work in the area of renal physiology with emphasis on obstructive uropathy. That year changed my life. I am a great advocate of the lab year in residency programs, and I am somewhat distressed that less than 25 programs in the states now have a laboratory year. I had been headed to private practice prior to that year, however, when I got into the lab I found that I enjoyed solving problems and enjoyed discovering new knowledge, and interacting with basic scientists. It is my belief that even for someone who is not headed to academic medicine, the lab year makes them appreciate the literature, understand the scientific method, and practice better urology, particularly in this area of “evidence based decision making”. Therefore, I would hope that the National Institute of Health and other funding agencies make funds available for expansion of research in residency programs and that our different national organizations make funds available to support junior faculty during the lag phase between research training and the availability of federal or industrial funding. The life of the junior faculty member, in these days of increasing regulation and decreased reimbursement, is difficult and they need to be encouraged.

When I completed training the excellent AUA/AUAF fellowship program did not exist. I had become interested in the renin and aldosterone system and I decided to pursue a fellowship. Fortunately, the fellowship was funded by NIH and I spent two years with Dr. John Laragh at Columbia Presbyterian Medical Center in New York City. Dr. Laragh is one of the true geniuses with whom I have had the pleasure to work. He was the first to discover that infusion of angiotensin stimulated aldosterone, and he has been a pioneer in the understanding of the system. Working with him, I learned a take home message which has proven very valuable. Dr. Laragh felt that the intense and careful study of patients with unusual diseases, or of small groups of patients with more common diseases, was often more valuable than large randomized prospective cooperative studies of large numbers of patients. Indeed, understanding the pathophysiology of primary hyperaldosteronism led to a better understanding of low renin essential hypertension, and the sub-categorization of essential hypertension patients by renin subtype. That is only one example. I think our young investigators should spend more time carefully examining patients with unusual diseases, as these patients may hold the key to larger populations. This certainly has been true in the case of the renal carcinoma, as exemplified by the ground breaking studies of Marston Linehan.

Returning to Virginia, I teamed with an excellent group of individuals who were interested in hypertension. It is interesting that a number of us have gone on to administrative positions. Dr. Robert Carey, who was Dean at the University of Virginia, Dr. Edward Miller is current CEO at Johns Hopkins, and Michael Peach, who later became Associate Dean for Research at the University of Virginia. Research is incredibly complex, and that is even truer today than it was 30 years ago. One of my messages is that clinician-scientists who want to contribute both to clinical care and translational research, need to team with basic scientists. I think the day of the isolated urology research laboratory is gone, and we need to distribute research space in a mission-oriented fashion with clinical and basic science teams addressing a particular problem. Realizing that years ago, I actually never had an independent laboratory at the University of Virginia. I continued my research in obstructive urology working with Jay Gillenwater's team, and my work in hypertension which led to a Research Career Development Award was in the Department of Pharmacology. The clinician often becomes frustrated in that his or her clinical activities dilute the laboratory time. But conversely, the basic scientists who spend all of their time in research, are dramatically stimulated by the presence of clinicians who often can see the clinical applications of basic science research. This interaction is clearly a win-win situation.

Thirty years ago I was asked to head the Division of Urology at what was then the New York Hospital-Cornell Medical Center, and is now the Department of Urology at New York Presbyterian Hospital and Weill-Cornell Medical College. Young academic urologists need to realize that assuming the head of a department or a division means that they give a bit of themselves in order to develop their department, stimulate junior members of the department, and mentor students, residents and faculty. If this concept is foreign to them, they should not take the job. A key to success is to surround yourself with excellence. I have been fortunate for 30 years to have members of our department who are internationally known in all the domains of urology. Developing and directing a department requires a number of skills, but I would say the prime skill is simply learning how to interact well with all the component parts of an academic medical center. As someone imparted to me once, "a department chair is nothing more than a middle manager in a large organization". When you are a leader in your specific discipline, it is hard to assume that role, but I am afraid it rings true. The second aspect which leads to success is "remaining ahead of the curve". At Weill-Cornell over the years, we had the first ESWL machine in New York, the first Candella laser, we have been pioneers in microsurgical techniques and new methods of sperm retrieval in reproductive biology. We have a multi-prong productive laboratory interacting with the departments of internal medicine, pharmacology, anatomy, physiology, surgery and public health, to our mutual benefit. We entered the field early in both laparoscopic and robotic surgery, and we have always had close interactions with our colleagues at Memorial Sloan Kettering Cancer Center in urologic oncology.

Along the way, I became involved in national urology, particularly in the area of research. Heavily influenced by Jay Gillenwater, Gene Carlton, Frank Hinman, and Paul Peters, we began a long endeavor to increase our visibility and funding at NIH, particularly our "Urology Institute", the National Institute for Diabetes, Digestive Disease and Kidney Disease (NIDDKD). I was able to serve as Vice Chairman of the National Kidney and Urologic Disease Advisory Board, to work on development of their first long range plan and subsequently I have served on Council for NIDDK, and currently serve on an advisory board with other members of the AUA, looking at future research plans. Although it has been a rocky road, the AUA Foundation (former AFUD) has made a major

impact on national and international urology, particularly with the fellowship program. It would be my hope now with the collaboration with the AUA, that further expansion will occur and the Foundation will be able to fund not only AUAF scholars, but also junior faculty members and the pilot projects. We still have a narrow base of research urologists in Canada and the United States, and we remain thin in the number of highly competitive grant applications that are generated. The thrust of NIH toward translational research may be of benefit to urologists, and certainly the compilation of “Urologic Disease in America”, recently prepared by Mark Litwin, shows the economic impact of urologic disease.

Finally, years ago I entitled my Raymon Guiteras Lecture “Innovations and Excellence”, and in that talk I emphasized that our incredible success in the development of urology and the care of urological patients stems from the excellence of the members of our community, as well as our ability to innovate and to acquire new knowledge and technology as times change. So, it has been my good fortune to have chosen urology as a career, and to pursue a career in academic urology. It is an exciting field, and a field with a wonderful community of clinicians and scientists who are dedicated to the care of their patients. Fortunately, we continue to recruit the best medical students into the field, and it is my hope that these ruminations might be of some interest to them as they begin their academic careers.

E. Darracott Vaughan, Jr., MD
James J. Colt Professor of Urology
Weill-Cornell Medical College
New York, New York, USA