



# THE BRADY

100 YEARS

## 100 YEARS OF LEADERSHIP AT



### **HUGH HAMPTON YOUNG 1897-1941**

*“The Father of Modern Urology,” recognized for transforming the field into a major surgical specialty*

Selected at age 27 by Halsted and Welch to run the genitourinary clinic, Young rapidly transformed a diagnostic/endoscopic outpatient field into a full-fledged branch of highly specialized major surgery. His pioneering contributions such as radical perineal prostatectomy for the cure of prostate cancer, and simple perineal prostatectomy and the transurethral “punch” procedure for the treatment of prostatic obstruction, brought Young great fame and a new patient. “Diamond” Jim Brady was so grateful for Young’s care that he funded the Institute that bears his name. Young is also credited with the discovery of mercurochrome, the first use of interstitial radiotherapy for prostate and bladder cancer, surgical correction of disorders of sexual differentiation, and surgery for posterior urethral valves. Young developed the first urology residency training program, founded the *Journal of Urology* and wrote the major textbook of his time. It has been said that “The prostate makes most men old, but it made Hugh Young.”

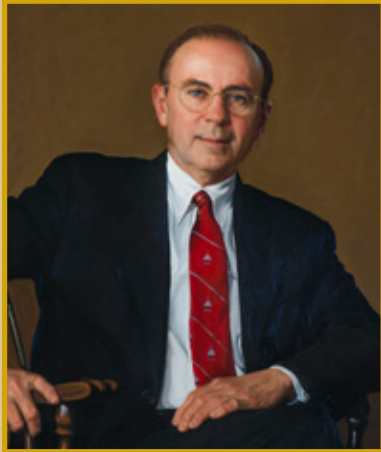


### **WILLIAM W. SCOTT 1946-1974**

*Revolutionized academic Urology by introducing basic research into residency training*

Scott, who trained at the University of Chicago with the future Nobel Prize-winning Urologist Charles Huggins, was appointed at age 33 to be Young’s successor. At the Brady, Scott introduced basic science into the field and made one year of laboratory research a mandatory part of residency training. This move was critical: in the absence of a comparable medical specialty, Urologists also had to become surgeon-scientists. Scott’s contribution could not have been better timed. At the end of World War II, there were many outstanding candidates for residency positions, and soon many influential chairs would need to be filled. Sixteen of Scott’s residents became chairs of those departments. One of Scott’s greatest gifts to the field was recognizing and encouraging the brilliant scientist, Donald S. Coffey, Ph.D., the legendary director of research at the Brady for three decades. Coffey went on to educate, inspire, and mentor scores of the future leaders in the field.

## THE BRADY UROLOGICAL INSTITUTE



### **PATRICK C. WALSH 1974-2004**

*Pioneered nerve-sparing radical prostatectomy, which rejuvenated scientific discovery in the field*

When Walsh became Director at age 36, he faced two major challenges: radical prostatectomies were rarely performed, because of excessive blood loss and unacceptable side effects; and the antiquated Brady Building needed to be replaced. After painstaking anatomic studies, Walsh developed a nerve-sparing procedure that reduced blood loss, improved continence, and made it possible to preserve potency. By 1992, radical prostatectomy became the most common treatment for localized prostate cancer in the U.S., and over the next decade deaths from prostate cancer declined by 40 percent. This surgical advance also provided abundant tissue for scientific investigation, galvanizing research in the field. In 1982, the Brady Institute was relocated to the newly renovated Marburg Building, a state-of-the-art facility where surgeons and scientists could work side by side. Over the next two decades, the Brady gained national recognition for excellence in research, patient care, and teaching. Eighty-five percent of Walsh's residents entered careers in academic medicine and seventeen became chairs of departments.



### **ALAN W. PARTIN 2004-PRESENT**

*Inventor of a nomogram that predicted curability and leader of the Brady as it enters its second century*

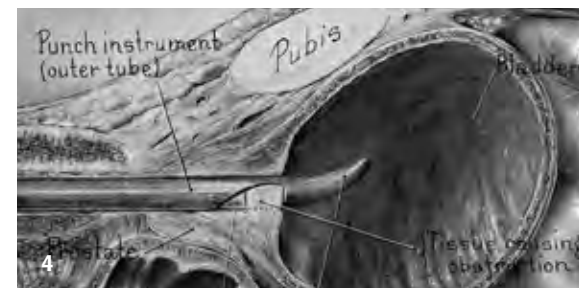
An Academic All-American in football and Valedictorian of his Class at the University of Mississippi, Partin came to Hopkins in 1983 and never left. He received his M.D. and Ph.D. in Pharmacology and Molecular Sciences under the mentorship of Don Coffey in 1989. As a Brady resident, Partin developed a nomogram, the Partin Tables, which launched a new field in prognostic prediction, helping countless patients to estimate whether they had curable disease. In 1995, he joined the faculty, and in 2004, at the age of 43, he was appointed the fourth Director of the Brady Institute. During the next decade, Partin oversaw initiation of robotic surgical programs in prostate, kidney and bladder cancer, expansion of the residency training program to three residents per year, creation of fellowships in Oncology and Sexual Medicine and Reconstruction, construction of a Woman's Pelvic Health Center at the Bayview Campus, and dedication of the Christina and Robert C. Baker Prostate Cancer Treatment Center on eleventh floor of the Zayed Tower, the new home for the Brady's inpatients.

*“This milestone in the creation of a surgical specialty, carved out of the body of general surgery and housed in a single building affording facilities for patient care, teaching, and investigation — the first of its kind in the western hemisphere — was attributable to the vision, resourcefulness, tireless energy, and magnetic personality of Hugh Hampton Young.”* HUGH J. JEWETT

*“I am absolutely convinced in my own mind that a year spent in research makes one a better doctor no matter what he or she does later, whether continuing in academic medicine or returning to the clinical practice of Urology. Research teaches one to think, to realize that we don’t have all the answers by any means, and to ponder how we might do better.”* WILLIAM W. SCOTT

*“Discovery was our most important mission — yes, more important even than patient care. Why? If your mission is discovery, you will be giving your patients care that is not available anywhere else in the world. Each member of the faculty was given a focused area of opportunity for discovery in the laboratory, in the clinic, or in the operating room. I believe that this mission distinguished the Brady from other institutions and made it what it became.”* PATRICK C. WALSH

*As the Brady enters its second century, it is wise to reflect on the title that Thomas Turner, the revered Dean of the School of Medicine from 1957 to 1968, gave to his book, Heritage of Excellence, which summarizes the contributions made by the early leaders of Johns Hopkins. These words serve as a constant reminder of the continuing responsibility to honor and respect these men and women upon whose shoulders the current generation stands, and to live up to their legacy as the Brady enters the next 100 years.*



**1. 1889 THE JOHNS HOPKINS HOSPITAL** opened. Its benefactor, Mr. Johns Hopkins, envisioned a “Hospital that shall ultimately form a part of the Medical School” linking patient care, teaching and research – a first in American medicine

**2. 1893 THE BIG FOUR**, William Welch, William Osler, William Halsted, and Howard Kelly, founding faculty of the School of Medicine, which opened in 1893. In 1910, the Flexner Report named Johns Hopkins as the model that all other schools in the U.S. should emulate.

**3. 1904 RADICAL PERINEAL PROSTATECTOMY** for the cure of prostate cancer pioneered by Hugh Young.

**4. 1905-1908 IMPROVED SURGERY FOR PROSTATIC OBSTRUCTION.** Hugh Young revolutionized the field by developing a simple perineal prostatectomy that was safer for enlarged prostates, and a less-invasive transurethral “punch” procedure for the treatment of smaller ones.

**1912 DIAMOND JIM BRADY** was attracted to Hopkins for treatment by Young’s surgical reputation. In gratitude for the care he received, he funded the creation of the Brady Institute.

**5. 1915 THE JAMES BUCHANAN BRADY UROLOGICAL INSTITUTE** opened, the first of its kind in North America.

**6. 1915 THE BRADY RESIDENCY**, developed by Hugh Young, was the first formal curriculum for teaching residents in Urology.

**1917 FIRST INTERSTITIAL RADIOTHERAPY** for prostate and bladder cancer, by Hugh Young.

**1917 THE JOURNAL OF UROLOGY**, founded by Hugh Young.

**1919 DISCOVERY OF MERCUROCHROME**, by H.A.B Dunning, Hugh Young, and E.G. Davis.

**1929 FIRST TREATMENT OF POSTERIOR URETHRAL VALVES** by Hugh Young.

**7. 1946 FIRST CLINICAL STAGING OF BLADDER CANCER** by Hugh Jewett.

**8. 1947 LABORATORY RESEARCH AS AN OBLIGATORY PART OF RESIDENCY TRAINING.** William Scott modernized the field of academic Urology by creating surgeon-scientists.

**9. 1969 DONALD S. COFFEY, PH.D.** Recognized and encouraged by William Scott, Coffey inspired, mentored, and trained many leaders in the field today during three decades as Director of the Brady Laboratories.

**1975 NUCLEAR MATRIX PROTEIN.** Don Coffey isolated and recognized this substructure of the mammalian cell nucleus (the nuclear matrix) that organizes genome functions into discrete regions.

**10. 1977 FUNCTIONAL RECONSTRUCTION OF BLADDER EXSTROPHY**, by Robert Jeffs. This revolutionary surgical procedure made it possible to restore urinary function and quality of life.

**11. 1982 NERVE-SPARING RADICAL PROSTATECTOMY**, by Patrick Walsh, overcame many of the obstacles to surgical treatment by reducing blood loss, improving continence, and making it possible to preserve potency.

Within 10 years, radical prostatectomy became the most common treatment for localized prostate cancer in the U.S., and over the next decade, deaths from prostate cancer fell 40 percent.

**12. 1982 RELOCATION OF THE BRADY UROLOGICAL INSTITUTE TO THE HISTORIC MARBURG BUILDING.** This provided modern inpatient facilities and three floors of offices and research laboratories, where surgeons and scientists can work side by side.

**13. 1984 EXCISION OF RENAL CELL CARCINOMA INVOLVING THE RIGHT ATRIUM** by Fray Marshall and Bruce Reitz. The first procedure to use hypothermia and circulatory arrest for the excision of tumor thrombus above the diaphragm.

**1984 MAPPING OF ALPHA 1 RECEPTORS IN THE PROSTATE** by Herbert Lepor and Ellen Shapiro. This exciting work provided the foundation for a radically different approach to BPH, and served to engage techniques, experimental approaches, and expertise common in the neurosciences for urological research.

**1992 DISCRIMINATING THE ROLE OF NITRIC OXIDE IN PENILE ERECTION**, by Arthur Burnett and Solomon Snyder. The discovery and identification that nitric oxide is a physiologic mediator and neurotransmitter of erectile function.

**1992 MENDELIAN INHERITANCE OF PROSTATE CANCER.** Bob Carter and associates. The first proof that familial aggregation of prostate cancer had a genetic basis, which brought molecular genetics to the prostate cancer field.

**1992 AGE- AND DISEASE-RELATED CHANGES IN PSA** H. Ballentine Carter and associates charted the 25-year course of changes in PSA in men with no prostate disease, benign disease, and localized and metastatic cancer. This formed the basis for using PSA kinetics for early diagnosis and prognosis of prostate cancer.

**14. 1993 PREOPERATIVE NOMOGRAM TO PREDICT PATHOLOGIC STAGE**, by Alan Partin and associates. Based on three findings – Gleason score, clinical stage, and PSA – the “Partin tables” made it possible for the first time to predict the probability of cure before surgery.

**1994 EPIGENETICS OF PROSTATE CANCER** by William Nelson. GSTP1 hypermethylation was one of the very first reports of epigenetic “gene silencing” in all of cancer, leading the way toward new diagnostic tools and treatment concepts.

**1994 PREDICTION OF INSIGNIFICANT TUMOR.** by Jonathan Epstein and associates. These criteria provided the first way to identify ideal candidates for expectant management.

**15. 1995 LAPAROSCOPIC LIVE-DONOR NEPHRECTOMY** by Louis Kavoussi and Lloyd Ratner. Compared to the standard open-surgical approach, it resulted in less postoperative surgical pain, a shorter hospital stay, and quicker recovery. This new advance had a profound impact on the field of transplantation, enhancing the willingness of family and friends to donate.

**1999 NATURAL HISTORY OF PROGRESSION AFTER PSA ELEVATION FOLLOWING RADICAL PROSTATECTOMY**, by Charles Pound and associates. The first nomogram to predict the probability of metastatic disease in men with a rising PSA following surgery, this is one of the most cited papers in the field of prostate cancer.

**16. 2007 MRI-COMPATIBLE ROBOT** invented by Dan Stoianovici, provided new technology for MRI-guided needle biopsy or brachytherapy utilizing an MRI-compatible pneumatic step motor.

**2012 MUTATION IN HOXB13**, by William Isaacs and associates. The first genetic mutation responsible for

increased risk of prostate cancer in families.

**17. 2012 CHRISTINA AND ROBERT C. BAKER PROSTATE CANCER TREATMENT CENTER.** The elegant new home for Brady inpatients on the eleventh floor of the Zayed Tower.

**2014 ANDROGEN-RECEPTOR VARIANTS TO SELECT TREATMENT IN CASTRATE-RESISTANT PROSTATE CANCER**, by Jun Luo and associates. Detection of AR-V7 in the blood provided the first method to identify patients who were unlikely to respond to enzalutamide and abiraterone, and who should seek earlier treatment with chemotherapy or other alternate treatments.



### **JAMES BUCHANAN “DIAMOND JIM” BRADY** *A Gem of A Man*

Brady was a self-made multimillionaire who lived in New York City during the Gilded Age. He was a big man who lived with gusto, famous for his expensive tastes: good food, fancy jewels, and beautiful women. At the age of 56, he developed symptoms of urinary outlet obstruction but was turned down for surgery by experts in Boston and New York because he was not well — he had obesity, diabetes, Bright’s disease, angina, and hypertension. However, when he came to Hopkins, Hugh Young told him about his “punch” procedure, which did not require anesthesia. Brady agreed to the operation and he made a full recovery. In gratitude, he donated the money to build the Institute that would bear his name. When it opened on January 21, 1915, the eight-floor Brady Urological Institute was the first of its kind in North America. That evening, at a lavish dinner at the Belvedere Hotel in Baltimore, Brady said with emotion, “The sky was never so blue and the grass never so green as they are this day for me.”

*For more detailed information, please go to: <http://urology.jhu.edu/about/books.php>*

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