Distinguished Alumnus

Henry S. Friedman, MD '77, HS '81

Henry S. Friedman, MD '77, HS '81 is the James B. Powell, Jr. Professor of Neuro-Oncology at Duke University Medical Center and deputy director of the Preston Robert Tisch Brain Tumor Center. His academic work focuses on the treatment of children and adults with brain and spinal cord tumors. Although initially focusing on basic laboratory, translational and clinical investigations for childhood tumors, notably medulloblastoma and glioblasatoma, he extended his work to include adult central nervous system (CNS) tumors. He has published more than 500 peer-reviewed articles, written 23 book chapters, has been an author on more than 650 abstracts, and presented more than 160 lectures throughout the globe. He is a member of numerous professional organizations, including the American Society of Clinical Investigation, and has won numerous awards, including the Duke Medical Center Distinguished Faculty Award.

Dr. Friedman was born and raised in Jackson Heights, a neighborhood in Queens, New York. He first decided to become a physician after being strongly influenced by the television show, "Dr. Kildare," starring Richard Chamberlain. No one in his family had ever gone into medicine, yet he was convinced it was his calling. This belief was reinforced when his father died of his first myocardial infarction at age 55, when Friedman was just 11. He had no siblings and was raised by his mother, Miriam, who became and remained a pivotal focus of his life until her death at age 95 in 2011. As a boy, Friedman suffered a clinical depression following his father's death, but his mother, in seeking a positive intervention, created a lifelong love of Broadway musicals, as they began going to see shows such as *Fiddler on the Roof* with Zero Mostel, *Cabaret* with Joel Gray, *Man of La Mancha* with Richard Kiley, etc.

Friedman attended Stuyvesant High School in New York City. Following graduation in 1969, he went to the University of Rochester, where he majored in biology while pursuing a pre-med curriculum. He began an enduring pathway of learning from mentors who guided him on his career pursuits. He did a two-year research project under the mentorship of Dr. Ernst W. Caspari focusing on DNA transformation in flour moths. This work kindled a career-long interest in laboratory investigations.

Following graduation, Friedman entered Upstate Medical University in August 1973. The first two years of medical school were very similar to college and he was, admittedly, not a stellar student. However, this all changed with his first clinical rotation—pediatrics—in the third year with Leonard Weiner, MD, as his attending. This transformational event led to Friedman's total immersion in clinical medicine. He flourished under the mentorship of Drs. Jim Stockman and Frank Oski, and it became very clear that he intended to pursue a career in pediatric hematology-oncology. Following completion of his four years of medical school, he matched at Upstate Medical University in pediatrics.

Friedman devoted himself to pediatrics, and in particular, pediatric hematology-oncology. He fast-tracked by doing two years of residency and then immediately stepping into a pediatric hematology-oncology fellowship. This was life changing both because of the impact of the field on Friedman, and because he met his future wife, Joanne Kurtzberg, MD, who was also a pediatric house officer and his co-fellow in pediatric hematology-oncology. During his second year of fellowship, Friedman started working in a hematology laboratory and found it uninspiring. He nervously told Dr. Oski, who while not pleased, said to Friedman, "If you are going to do oncology, you are going to do neuro-oncology because the field is basically devoid of any meaningful work and anything you accomplish will be an important contribution." Dr. Kurtzberg left Upstate Medical University at the end of the first year of fellowship to go to Duke University Medical Center and Friedman followed her six months later. When asked by John Falletta, MD, chief of the Division of Pediatric Hematology-Oncology at Duke what he wanted to pursue, Friedman remembered Oski's words and answered "neuro-oncology."

Friedman's work at Duke was based in the research program of Darell D. Bigner, MD/PhD, director of the Preston Robert Tisch Brain Tumor Center and, to this day his mentor and friend. He developed the best models of human medulloblastoma in cell culture and in xenografts in athymic nude mice and used these to identify agents, which he successfully translated into the clinical arena. Friedman chose to work with alkylating agents and as such reached out to Michael Colvin, MD, an alkylating agent expert, who was based at Johns Hopkins and became his mentor in this field. He and Kurtzberg, who was now his wife, had the fortuitous opportunity to meet Gertrude Elion of Burroughs-Wellcome at a Keystone Conference in 1983 and developed a warm and sustained friendship and mentoring relationship throughout the remainder of her life. Friedman and Kurtzberg remember vividly being awakened at 5:00 a.m. in St. Louis where they were attending a meeting and being told that Elion had just won the 1988 Nobel Prize in Physiology of Medicine.

Friedman's career during this time was notable for the continued expansion of his laboratory and clinical programs in pediatric neuro-oncology, his leadership of the Pediatric Oncology Group CNS Tumor Committee with Larry Kun, MD, for over a decade, and his creation of the only Division of Pediatric Neuro-Oncology in a Department of Pediatrics in the United States. He had the opportunity to mentor medical students in the clinic and also those who chose to spend a year in his laboratory, which the Duke Medical School curriculum allowed. These students were co-mentored by Drs. Friedman and Elion as highlighted by an extensive and substantial series of high impact publications in the scientific literature.

Friedman's interest broadened to go beyond pediatric neuro-oncology since he also wanted to address the problem of adult brain tumors. He hired a pediatric neuro-oncologist to assume responsibility for the pediatric neuro-oncology service and moved his program, which now consisted of more than 50 people, to the Division of Neurosurgery in the Department of Surgery. His conversion to an adult neuro-oncologist was facilitated by his mentor and friend Allan Friedman, MD, chief of Neurosurgery. His work proved pivotal in the development of several of the few FDA approved treatments for glioblastoma including, Temozolomide, and more recently Avastin. Dr. Friedman's mentorship and friendship led to one of the leading partnerships that continues in the treatment of adult brain tumors. Following the creation of a new Department of Neurosurgery, Dr. Henry Friedman became the first chief of the Division of Medical Neuro-Oncology. His most recent work has been as a member of a team at Duke utilizing a modified poliovirus to treat glioblastoma and a spectrum of non-CNS tumors. This work has been profiled by "60 Minutes" in 2015, 2016, with the latest episode currently being filmed.

Dr. Friedman with his wife Dr. Joanne Kurtzberg when they were fellows in Pediatric Hematology-Oncology at Upstate in 1979.

Friedman has not only mentored medical students and fellows, but with Dr. Allan Friedman, built the Collegiate Athlete Premedical Experience (CAPE), a program designed to mentor female varsity athletes intent on pursuing a career in medicine with the goal of becoming leaders in the field of their choice. To date, the program has placed over 100 such students who are now in medical school or beyond. Friedman is an ardent feminist, and as such, serves on the National Advisory Panel of espnW. He has been a long-term member of the Executive and Super Executive Admission Committees of Duke University Medical School and helps Duke attract a talented and diverse class every year. He is repaying the debt he feels to Broadway by serving as a medical concierge, assisting any member of the Broadway community find needed medical care anywhere in the world. Needless to say, Friedman believes he is leading a full and fulfilling life.

Friedman and Kurtzberg's marriage is now in its 36th year. "You can tell if a man is smart by determining if he married up," he says. Friedman admits he has indeed married way up—Kurtzberg is the world's leader in bone marrow and umbilical cord-derived stem cell transplantation treating a broad spectrum of diseases. They are the parents of two children: Joshua, a 34-year-old attorney in Washington, DC, and Sara, a 29-year-old director of strategic partnerships for a firm in New York City. Friedman and Kurtzberg have no intention of retiring and plan to continue indefinitely making contributions in their respective fields. Friedman's hobbies include road biking with his wife and going to the gym four days a week when he is not traveling.

Bio submitted by Dr. Friedman

Dr. Friedman and his family at the White House. His son, Josh, was a lawyer in the White House Counsel's Office for four years.