Walter L. Copeland has been a name synonymous with state-of-the-art neurosurgical research accomplishments at the University of Pittsburgh Department of Neurological Surgery for decades. These accomplishments have largely been made possible through a $1 million estate gift Copeland earmarked to the department at the time of his passing in 1959. This gift—a huge amount for the time—has planted the seeds for years of fruitful research. In the 50 years since it’s inception, the Copeland Fund has provided the impetus for hundreds of research projects that, ultimately, have improved the lives of countless patients.

In this issue we touch upon the ongoing support of the Copeland Funds, and explore how the generosity and thoughtfulness of one individual has provided a powerful, lasting and positive impact on a department and the people it serves.

As a child, Walter watched as his father owned and managed a small grocery store in the New Kensington area of Pittsburgh. Walter’s father always encouraged his children to strive for greater opportunities. He heeded his father’s advice and worked diligently to become a successful attorney, eventually becoming a director at the former Jones & Laughlin Steel Corporation.

Family was just as important to Walter. He lived his entire adult life with his brother, the Rev. Clyde E. M. Copeland, pastor of the Jefferson United Presbyterian Church in the South Hills area of Pittsburgh for 25 years. It was at this juncture that Walter may have made the philanthropic decision that ultimately impacted neurosurgery research at the University of Pittsburgh for generations.

Not much is known with any certainty about the circumstances surrounding Walter’s choice to give such a huge amount to support research in brain surgery—his will gave no reason for the bequest—but the reasons may be rooted in the medical case of a little girl, Shirley Mae Hough, that he never met.

Soon after Walter’s death at age 78 on March 5, 1959, his brother shed some light on the possible genesis of Walter’s generosity. “About 12 years ago, a little 10-year-old girl in my congregation [Hough] developed a brain tumor,” Clyde recalled at the time. “She was a very bright and precocious girl and I was at the hospital when she was operated upon.” Considering this surgery was performed in the 1940s, there was still much to be learned about neurosurgery. Unfortunately, the girl developed complications and passed away, July 21, 1945, after five months in the hospital.

While Clyde was offering pastoral support to Hough’s family during the tragic months that preceded her death, he was also discussing the girl, her family, and the treatment she was receiving with his brother during their nightly dinner conversations. Clyde later learned from the girl’s family that, although Walter had never met the child, he visited her family at the funeral home to offer his sympathies.

“My brother was a very tender-hearted man and very reticent where his feelings were involved,” Clyde said. “He never discussed this with me, but I can only assume that this is the reason why he set up the trust fund.” Through this bequest, the Walter L. Copeland Fund was established at The Pittsburgh Foundation in 1961, with instructions that the entire annual proceeds support research in the Department of Neurosurgery at the University of Pittsburgh. Since that time, more than $2 million has been granted for various research projects.

Walter’s philanthropy helped make the University of Pittsburgh Department of Neurological Surgery a prestigious institution where patients have come to rely on lifesaving medical care, advanced training and forward-looking research. Every person making a donation of any size, joins Walter Copeland in impacting the future of medical research and neurosurgical care.

For more information about philanthropic opportunities, please contact James Olsen at (412) 647-7781.

Kindness of Walter Copeland a genesis for generations of neurosurgery research

Kindness is the language which the deaf can hear and the blind can see.

- Mark Twain
Great ideas start from a small seed

All great ideas germinate from a small seed. Before large scale research can be performed, whether in a test tube, using animal models or with human subjects, the idea must be tested, refined, and developed.

Large-scale research projects are expensive, and such funding is difficult to obtain. Most funding agencies seek proof that investigators have been successful with similar projects, have some collection of facts that back up their hypothesis, and have a successful track record in the field. In order to achieve such elements, most investigators start with small projects funded by “seed money.” The Walter Copeland Fund has been the most important source of such funds in this department.

Whether the investigator is an early-level resident with a great idea, or an established and well-funded senior investigator with a new idea, research costs money. At most institutions, such funds are hard to come by. Thankfully, the Copeland Fund has supported the translation of ideas into reality and has been the source of early support for many successful careers and lines of investigation.

Work in brain tumor biology, traumatic brain injury, neurophysiology, radiation biology, robotics, endoscopy, and technological development all have been research avenues supported through department funds that exist because of the generosity of our donors.

Work performed in the Copeland Laboratory and supported by Copeland funding provided the genesis for my own subsequent National Institutes of Health funding that established a radiobiology laboratory, allowed us to recruit many visiting research fellows from numerous countries, and became the “gas in the engine” for success in our clinical research programs. This story rings true for the many different research elements in our department.

As academic neurosurgeons, we continue to seek new sources of funding for an expanding array of more challenging research topics. The Copeland Fund remains one important source, but the needs are great because the talent pool here is great.

We seek to expand funding for cerebrovascular surgery, brain tumor research, functional and behavioral neurosurgery, spinal neurosurgery research, biomechanics studies, clinical trial support, and clinical epidemiology. We also seek to provide salary support for young investigators who work tirelessly on these projects.

Together with our partners at the University of Pittsburgh and the UPMC Foundation, we seek to develop new sources of research support to add to the example of Walter Copeland and to develop other dedicated research programs.

We need the help of grateful patients and the community to partner with us.

Our society demands real answers to healthcare problems related to the nervous system, but at the same time, the pool of research dollars is ever shrinking. Our department mission remains committed to the best inpatient care, research and teaching, and we look forward to the continued development of all aspects of our mission.

Douglas S. Kondziolka, MD
Editor, University of Pittsburgh Neurosurgery News
Peter J. Jannetta Professor of Neurological Surgery
Vice Chairman, Education, Dept. of Neurological Surgery

for MORE information on the University of Pittsburgh Department of Neurological Surgery, visit our website at www.neurosurgery.pitt.edu
The citicoline traumatic brain injury trial

by David O. Okonkwo, MD, PhD

Over 1.5 million Americans sustain a traumatic brain injury each year and more than five million people in the US are living with a permanent disability as a result of a brain injury. Lasting effects on cognition, memory, and executive processing are some of the most common consequences of a brain injury. Despite the efforts of scientists worldwide, no clinical trial involving a drug therapy for brain injury has yet demonstrated a treatment effect. There has been a glaring need for bench-to-bedside translation of innovative therapies to improve our capability to maximize patient recovery from brain injuries.

The Brain Trauma Research Center at the University of Pittsburgh is a multidisciplinary team of scientific and clinical investigators with the expertise and infrastructure necessary to move novel putative treatments from concept, through preclinical testing, into the hospital to help patients sustaining traumatic brain injuries. A recent example of such translational work is the COBRIT study, investigating a novel drug therapy to enhance recovery of cognition and memory after brain injury.

Researchers in the Brain Trauma Research Center at the University of Pittsburgh have had a long-standing interest in understanding the cognitive effects of brain injuries. In the 1990’s, C. Edward Dixon, PhD, professor of neurological surgery and director of the Brain Trauma Research Center, became interested in citicoline (also known as CDP-choline), a naturally occurring substance found in the body. Citicoline is a required ‘building block’ for neurotransmitters (brain chemicals) that are involved in memory. Dr. Dixon’s team performed several seminal studies in animals that demonstrated that citicoline harbors a neuroprotective effect in traumatic brain injury. Animals treated with citicoline had significantly improved memory and better cognitive recovery following traumatic injuries that animals treated with placebo.

Earlier this decade, the University of Pittsburgh joined the Traumatic Brain Injury Clinical Trials Network, a consortium of eight leading academic medical centers, funded by the National Center for Medical Rehabilitation Research at the National Institute of Child Health and Human Development. In collaboration with the Department of Physical Medicine and rehabilitation, Dr. Dixon presented his experimental successes with citicoline in traumatic brain injury for consideration of a translational clinical trial.

The steering committee of the TBI Clinical Trial Network embraced the project, and a randomized, placebo-controlled, phase III clinical trial in the 8 network centers began in 2005. The trial, named ‘Citicoline Brain Injury Treatment Trial’ and referred to as the COBRIT trial, is the first clinical trial in TBI to capture all spectrums of TBI, complicated mild, moderate and severe TBI, with CT evidence. This unique feature allows this study to evaluate cognitive recovery in mild TBI, an often overlooked subgroup of patients. Participants take 1000mg citicoline pills (or placebo) twice a day for three months following the initial brain injury. Enrollment and treatment are initiated within 24 hours of injury. Neurological outcome is assessed at three and six months post-injury. To date, 942 subjects have been enrolled in this study, with 110 in Pittsburgh. Frequent data and safety monitoring meetings have agreed that this treatment is safe. Upon completion of final enrollment and data analysis, expected in April 2012, treatment efficacy on subject outcome will be determined.

Work in Pittsburgh that took over a decade to reach fruition has now paved the way for a promising new agent to reach full scale clinical trial to treat cognitive and memory deficits after traumatic brain injury. This bench-to-bedside translation highlights the strength of the interdisciplinary research environment of the Brain Trauma Research Center.

Bench-to-bedside success:
The citicoline traumatic brain injury trial
Copeland Fund springboard for establishing foundation of major research projects

by C. Edward Dixon, PhD

The Walter L. Copeland Fund of the Pittsburgh Foundation supports cranial research performed in the Department of Neurological Surgery at the University of Pittsburgh. Focus on neurosurgical diseases is encouraged and may include innovative research in the areas of cerebral vascular diseases, cerebral ischemia, traumatic brain injury, neoplastic disease, infectious diseases, seizure disorders, cranial base surgery, radiosurgery, minimally invasive surgery and pediatric neurosurgical disorders. Basic science, as well as clinical research proposals, are supported. Departmental full-time faculty, residents and fellows are eligible for these in the amount of $10,000-$25,000 for one-year projects.

The fund supports innovative research through an annual peer-review grant process. All applications are reviewed by an internal review committee chaired by myself and made up of faculty in the Department of Neurological Surgery as well as representatives from the Pittsburgh Foundation. During the internal review committee meeting, the applications are critically reviewed and given a priority score using the NIH system and those applications with the highest priority scores are recommended to the Pittsburgh Foundation.

Since its inception, the Copeland Fund has made significant impact in stimulating research in the Department of Neurosurgery. Copeland grants are a key source of intramural funding because they provide faculty with resources to generate preliminary data vitally necessary to be competitive for federal grants in the current funding environment. The Walter Copeland Fund also supports resident research during their two-year career development block during resident years PGY-5 and -6.

The impact Copeland funding is easily observed in the Department of Neurological Surgery’s research where Copeland Fund-supported studies have been successfully utilized to attract further significant extramural funding. Examples include funding successes in neurotrauma and brain glioma research resulting from Copeland funding.

In the area of neurotrauma, a Copeland grant was awarded to myself to initiate studies on the effect of TBI on the DA- and cyclic adenosine monophosphate (cAMP)-regulated phosphoprotein. Mr 32 kDA (DARPP-32), is a key convergence point in striatal medium spiny neurons for the activity of multiple neurotransmitter systems in the brain. Experiments supported by this Copeland grant discovered that TBI produces a chronic decrease in DARPP-32 activity. This novel finding was central to our obtaining a NIH grant to examine the role of DARPP-32 in cognitive deficits after TBI and to evaluate novel therapies.

The Copeland Fund has also had major impact in attracting NIH funding in glioma research in the Department. Ian Pollack, MD—Walter E. Dandy Professor of Neurological Surgery, chief of pediatric neurosurgery at Children’s Hospital of Pittsburgh and a principal investigator on numerous NIH grants focusing on novel therapies for brain tumors—reports that the Copeland Grant mechanism has long been a springboard to larger extramural funding.

In the early 1990s, a Copeland award helped provide the preliminary data for Dr. Pollack’s NIH K08 submission on Protein kinase C in gliomas. Several years later, a Copeland award provided a foundation for his project on a successful NIH program project P01 application, entitled “Novel Therapeutic Strategies for Gliomas.” Most recently, the Copeland Fund has provided funding for adding preliminary studies needed to obtain renewal funding on the above P01 grant.

Hideho Okada, MD, PhD—associate professor of neurological surgery and a leading researcher in brain tumor vaccine research—reports that at least two major NIH grants to develop safe and effective immunotherapy strategies for malignant CNS tumors represent successful outcomes of past Copeland funds to his group. According to Dr. Okada, critical preliminary data—often using expensive animal models—have been generated with Copeland funds. He strongly believes that his current success in funding is largely owing to the generous and continued support from the Pittsburgh Foundation through the Copeland fund.

These examples dramatically illustrate how the Copeland fund has been a highly successful program for driving innovative research to benefit patients suffering from intracranial diseases.
The Walter L. Copeland Laboratory serves as the primary facility for research and development within the Department of Neurological Surgery. Located on the ninth floor of Scaife Hall, the laboratory was dedicated on November 29, 2001 by L. Dade Lunsford MD.

The laboratory is under the direction of C. Edward Dixon, PhD, and houses several research disciplines and core facilities which provide resources and services for a wide range of neurosurgery faculty, residents, visiting fellows, and students. Core services in the areas of biochemistry, histology, and immunohistochemistry are offered in this facility.

Brain tumor, brain trauma, and neuroanatomical research are the primary initiatives being conducted in the laboratory. Much of this work is funded by The Walter L. Copeland Fund of The Pittsburgh Foundation, a fund that has provided resources for research at the University of Pittsburgh since 1961.

Brain tumor research conducted in the Copeland Laboratory range from the molecular assessment of tumor properties to the development of in vivo tumor models which undergo various therapeutic regimes. These therapies include the use of immunologic agents, neural stem cells, or radiation. Some studies utilize dendritic cells to enhance the activity of therapeutic immunity while others involve the use of neural stem cells to enhance tumor killing by genetically engineering transplanted cells for the delivery of therapeutic agents. Radiation therapy research aims to limit or prevent damage to normal brain while enhancing the effects of radiation on neoplastic tissue. In addition to therapeutic advances, molecular studies targeted at unraveling gene expression changes in angiogenesis are also under way.

Several facets of The Brain Trauma Research Center (BTRC), directed by Dr. Dixon are housed within the Copeland Laboratory. The BTRC is dedicated to improving outcome following severe head injury. In vivo models of brain trauma have been established and are targeting therapies that are aimed at outcome improvement through drug therapy and by understanding the mechanisms of secondary injury.

The use of stem cell therapies in the treatment of brain injury is studied in The Neural Enhancement Laboratory which is under the direction of Elizabeth Tyler-Kabara, MD, PhD, and is located in the Copeland Laboratory.

The laboratory for Clinical Neurotrauma Research is also located in the Copeland Laboratory. Led by David Okonkwo, MD, PhD, clinical brain injury research studies novel brain monitoring and biomarkers as well as therapeutic modalities like hypothermia and cerebral blood flow monitoring, both of which were pioneered at The University of Pittsburgh in the Department of Neurological Surgery.

Neuroanatomical research is also conducted in the Copeland Laboratory. Residents and visiting fellows train in neuroanatomy and the development of minimally invasive endoNeurosurgical approaches to the brain. New routes to various brain locations are developed using in vitro models. New MRI techniques for presurgical planning are being developed and the effects of endoscopic endoPort surgery on white matter tracts is also being investigated.

A medical school course is taught in the Copeland Laboratory. Directed by Dr. Tyler-Kabara, this course focuses on teaching neuroanatomy and various surgical approaches to the brain to fourth year medical students.

The Copeland Laboratory also houses the Spine Biomechanics Research Laboratory, a facility for performing in vitro biomechanical testing of spinal systems and spinal pathology. The laboratory, under the direction of Adam S. Kanter, MD, tests and designs new spinal implants.

The Walter Copeland Lab is housed in Scaife Hall at the University of Pittsburgh School of Medicine.
The training of future physician scientists is vital in the fight to cure neurological disorders. The need to train scientists well-schooled in basic science, clinical research and academic medicine has long been viewed as essential in the research community.

In 1964, the NIH’s National Institute of General Medical Sciences established the Medical Scientist Training Program (MSTP), offering exceptionally talented individuals an opportunity to undertake a physician-scientist training program tailored to their specific research interests, hopefully motivating them to undertake careers in biomedical research and academic medicine.

The Department of Neurological Surgery—in conjunction with graduate programs at the University of Pittsburgh and Carnegie Mellon University—currently sponsors two students, James Bales and Samuel Shin, enrolled in the program.

Both students—working in the research laboratory of C. Edward Dixon, PhD, professor of neurological surgery and vice chairman of research for the department—have projects that have benefited significantly from the Copeland Foundation Fund.

Bales, a graduate of the neuroscience and psychology programs at Washington State University, is involved in research examining the effects of traumatic brain injury (TBI) on adenosine A2A/dopamine D2 receptor dimmers. Funded by the Copeland Foundation, the project’s findings were recently presented at the National Society of Neuroscience conference.

Another ongoing project for Bales, also supported by the Copeland Foundation, examines the contribution of TBI-induced alterations in dopamine signaling mechanisms on cognitive deficits. Bales has found a specific injury-induced alteration in the phosphorylation state of the protein DARPP-32, a phosphoprotein that plays a central role in nearly all dopamine mediated events. He recently presented his findings at the National Neurotrauma Society meeting.

Shin, a bioengineering graduate from the University of California, San Diego, has worked with Dr. Dixon on a project looking at the effects of traumatic brain injury on dopaminergic deficits and the dysregulation of α-synuclein, a protein commonly found in Lewy bodies, hallmarks of Parkinson’s Disease. Previous studies have described the role of α-synuclein on regulation of dopaminergic neurons. Thus, loss of α-synuclein homeostasis can lead to dopaminergic dysfunction.

Based on these ideas, Shin developed a follow-up study—supported by Copeland Foundation Fund. In his study, Shin has discovered an upregulation of α-synuclein after TBI in rat frontal cortex and striatum and a corresponding deficit in dopamine synthesis and release, which may be the mechanism of TBI leading to neurodegenerative diseases like Parkinson’s Disease.

Shin was able to complete a significant portion of his PhD project through this support, and these findings will be presented at this year’s National Neurotrauma Society and Society for Neuroscience meetings.

Student, residents, and fellows are the innovators of future neurosurgical research. The above examples clearly illustrate the impact that support from the Copeland Foundation Fund can have on training the next generation of clinician scientists.

Recent donations to our department

Brain Injury Neurosurgery Fund
- Up to $1,000: Mr. & Mrs. Robert Michael Hernandez
- Center Image-Guided Neurosurgery
- Up to $1,000 - $5,000: Colgate-Palmolive Company
- Bradley P. Samuelson
- Valerie J. Stabile
- Up to $1,000: Georgia Alcorn
- Mr. & Mrs. Jim Bozzelli
- Dr. & Mrs. Richard W. Hertzberg
- JESPA
  - Faculty: Michael B. Horowitz, MD
- Up to $1,000: Anthony Halli
  - Faculty: David O. Okonkwo, MD, PhD
- Up to $1,000: Zoll Circulation
  - Gamma Knife
- Up to $1,000: Lori K. Woodbury
- Peter J. Janetta Chair
- Up to $1,000: Robert W. Coffin
- Mr. & Mrs. Henry M. Zachs

Jannetta Neurological Surgery Fund
- Up to $1,000: Mr. & Mrs. Richard A. Dunn

Minimally Invasive endoNeurosurgical Fund
- Up to $1,000: Robert J. Heitzman
- Mr. & Mrs. Paul Meyer Singer

Minimally Invasive endoNeurosurgical Research Development Fund
- Up to $1,000: Dr. & Mrs. Richard W. Hertzberg
  - Mrs. Elizabeth G. Graham & William L. Graham, MD
  - Mr. & Mrs. Alfred H. Speers

Neurosurgical Endowment Fund
- Up to $1,000: David J. Bissonette

For more information on donating to the Department of Neurological Surgery, please contact James Olsen of the University of Pittsburgh/UPMC Medical and Health Sciences Foundation at (412)-647-7781.
North American Gamma Knife Consortium Formed

The North America Gamma Knife Consortium—a group of academic and clinical centers of excellence across the continent performing brain stereotactic radiosurgery using the Leksell Gamma Knife—was recently formed to pool information to help improve outcomes. The University of Pittsburgh Center for Image-Guided Neurosurgery, under the direction of L. Dade Lunsford, MD, and Douglas Kondziolka, MD, is serving as the coordinating center for this group.

The primary goal of the NAGKC—a non-profit scientific, educational, and research entity—is to facilitate retrospective and prospective clinical trials and outcomes analysis that evaluate the role of Gamma Knife radiosurgery in a wide spectrum of clinical indications. Because individual centers may evaluate only a small number of patients with rare conditions, pooling of information is critical to evaluate and to improve outcomes.

The organizations comprising the NAGKC represent some of the leading neurological surgeons, radiation oncologists, medical physicists and researchers from leading academic medical facilities in the United States and Canada. Since its inception, the NAGKC has activated a number of retrospective clinical trials, worked on development of a database management program, and begun the process of developing prospective multi-center clinical trials in order to increase the scientific knowledge base and levels of evidence related to the use of the Leksell Gamma Knife.

All consortium research efforts will be directed to the improvement of public health and patient outcomes by increasing the quantity and quality of knowledge related to the treatment of a wide variety of brain and head and neck indications for which stereotactic radiosurgery is an appropriate technology. Results of NAGKC-conducted studies will be published in medical journals and otherwise made publicly available for the use of medical professionals.

For more information on the NAGKC, please visit the group’s website at www.nagkc.pitt.edu, or call (412) 647-6781.

Maroon Named to National Fitness Hall of Fame

Joseph Maroon, MD, was inducted into the National Fitness Hall of Fame, March 14. Dr. Maroon—co-developer of the ImPACT™ neurocognitive computer based test now the standard of care in professional and amateur athletics, and an avid triathlete—was honored for his contributions to sports medicine and for his own athletic and fitness pursuits.

The National Fitness Hall of Fame and Museum was founded in Chicago in 2005 to honor those who have made exceptional contributions to physical fitness and sports medicine in the United States. Previous honorees include Dr. Kenneth Cooper, founder of the aerobics movement; Arnold Schwarzenegger; Jack LaLanne, pioneer in physical fitness; and Bill Pearl, former Mr. Universe.

In the News

• On April 7, Hideho Okada, MD, PhD, was featured on the KDKA-TV (Pittsburgh) Evening News, and in the Pittsburgh Post-Gazette discussing his research to develop a cancer vaccine.

• Dr. Maroon was interviewed on HBO’s Real Sports with Bryant Gumbel, January 19, and on ESPN’s Outside the Lines, Super Bowl Sunday, February 7, regarding concussions in the National Football League. Dr. Maroon, longtime team neurosurgeon for the Pittsburgh Steelers, serves on the NFL’s Mild Traumatic Brain Injury Committee.

Dr. Maroon, also appeared on the KDKA-TV Evening News, February 15, discussing Resveratrol, a natural substance that may help lead to a healthier and longer life.

• Dr. Kondziolka was featured in a January 17 Pittsburgh Post-Gazette article examining how deep brain stimulation may help patients suffering from chronic depression.

• Elizabeth Tyler-Kabara, MD, PhD, Paul Gardner, MD, and Carl Snyderman, MD, were featured on the KDKA-TV Evening News, December 16, in a segment discussing how their pioneering endonasal surgery helped save the life of a five-year-old girl.

• Matt El-Kadi, MD, PhD, was featured on the cover of the greater Pittsburgh fall 2009 edition of MD News magazine.

New Research Projects

• “Peptide Based Vaccine Therapy for Childhood Malignant Gliomas.” PI: Ian Pollack, MD, $628,726, NIH/NCI.

• “Determining Genetic and Biomarker Predictors of DCI and Long Term Outcomes after aSAH.” PI: Paula Sherwood, RN, PhD, CNRN, $14,383, NIH.

Prominent Appearances

• Dr. Gardner, served as a visiting professor at the University of Louisville, January 28; Memorial Sloan Kettering Cancer Center, March 29; and McMaster University, April 23.

• Dr. Gerszten served as the keynote speaker for the second Indian Conference of Radiosurgery held in New Delhi, India, February 27-28.

• Dr. Maroon served as a visiting professor at the Cleveland Clinic, April 13-14.

Congratulations

• Dr. Gerszten was conferred tenure by the University of Pittsburgh in January.

• Dr. El-Kadi was named Vice-Chairman, UPMC Passavant Neurosurgery.

• Dr. Okada was named to the council of American Society for Clinical Investigation, an honor society of physician-scientists.

• Donna Rall, coder 1, and Marianna Hegedus, operations manager—both of the Mercy Division—recently passed the American Association of Professional Coders exam and are now certified professional coders.

Welcome

• Carol Fogel, secretary for Pedro Aguilar, MD.

Personal Congratulations

• Matthew Maserati, MD, and wife Megan had a baby girl (Natalia Sophia) on December 7, 2009.
Robert M. Friedlander appointed chair at Department of Neurological Surgery

Robert M. Friedlander, MD—currently professor of neurosurgery at Harvard Medical School and vice-chairman of neurosurgery and associate director of cerebrovascular surgery at Brigham and Women’s Hospital in Boston—has been appointed chairman at the University of Pittsburgh Department of Neurological Surgery.

As a sign of his prominence as a clinician and scientist, Dr. Friedlander, 44, is one of a very select group of authors to have been invited by the New England Journal of Medicine to write both a basic science review (mechanisms of neuronal cell death), as well as a clinical review (management of AVMs). Clinically, Dr. Friedlander focuses on the operative management of complex cerebrovascular disorders and brain tumors. Dr. Friedlander’s major research interests lie in the study of the mechanistic pathways of the caspase apoptosis gene family. As co-director of Brigham and Women’s Neuroscience Research Center, his work includes the evaluation of treatment strategies for neurodegenerative diseases (Huntington’s and ALS), stroke, brain trauma, and spinal cord injury through the modulation of the caspase-family apoptotic pathways.

Dr. Friedlander’s research has received significant media attention including major work published in Nature, Science, and Nature Medicine.

His work has also been recognized through many academic awards, including the Neurosurgery Resident Award from the Congress of Neurological Surgeons, the Bayer Cerebrovascular Award from the Joint Section of Cerebrovascular Surgery, the International Charcot Prize for Motor Neuron Diseases, and the Award from the Academy of Neurological Surgeons. In 2006, he was elected as a member of the prestigious America Society for Clinical Investigation.

Dr. Friedlander will assume his new position at the University of Pittsburgh on June 1. •

Robert M. Friedlander—currently with the Harvard Medical School—has been appointed chair at the University of Pittsburgh Department of Neurological Surgery.