A TALE OF TWO NEUROSCIENTISTS

A DEEP PERSONAL FRIENDSHIP AND SHARED INTEREST IN NEUROSCIENCE LED TWO LONGSTANDING CHAIRS THROUGH TWO DECADES OF COLLABORATION AND THE MERGER OF THEIR DEPARTMENTS.

Along the bays and beaches of the Long Island shorelines, a vibrant mix of land and sea creatures captivated the attention of a little boy so deeply that he knew by the age of seven he would one day be a biologist. A couple of hours to the north, in a town east of Hartford, Conn., the son of a widowed Irish maid grew to be an accomplished athlete who loved coaching children in basketball and other sports. Some forty years later, their paths would cross in Burlington, Vt., when they began laying the foundation for what would, in 2012, become the Department of Neurological Sciences at the University of Vermont.

Animals still figured prominently in the mind — and career — of Rodney Parsons, Ph.D., when he arrived at UVM in 1967. Fresh from a National Institutes of Health (NIH) postdoctoral fellowship at Columbia College of Physicians and Surgeons, coming to Vermont was a kind of homecoming for the Middlebury College alumnus and his wife. He'd followed through on his early interest, and received a biology degree, and then moved clear across the country to Stanford for graduate school before returning to his native New York. "We built our two departments together with common interests. We thought of it as a mechanism to increase recruitments, to build bridges."

— Rodney Parsons, Ph.D.

Things changed, administratively, in 1979, when Parsons became the chair of the then-Department of Anatomy. While medical, physical therapy, and neuroscience students already had an anatomy course, he designed, with Alpert’s permission, an eight-credit, two-semester integrated anatomy and physiology course to teach non-medical, non-physical therapy students, including those enrolled in the two-year nursing program, and medical technology and graduate technology programs. Physiology and Anatomy and Neurobiology faculty each taught half the course. Parsons and Steven Freedman, Ph.D., had previously co-designed the integrated medical student neuroscience course used at the College until the launch of the Vermont Integrated Curriculum in the early 2000s.

There was only limited research in the anatomy department back in the seventies," says Parsons, and there were only about five faculty and one-and-a-half administrative staff in the department when he became chair. It was then that he began to build the theme of neuroscience, changing the department name to Anatomy and Neurobiology. Originally he promised then-Dean William Lugelshuhl, M.D.,...
that he’d serve in the chair’s position for five years. His first recuit was the late Bruce Fonda, M.S., a lecturer in anatomy and neurobiology who was trained by longtime anatomist Dallas Bouley, who was set to retire after 50 years’ service. Also among Parsons’ early hires was Jerome Fieker, Ph.D., his former postdoctoral fellow. Over the next two years, Parsons hired nearly twenty more faculty members, many of whom remain in the department today. Among them was Cynthia Forehand, Ph.D., professor of neurological sciences and current interim dean of the Graduate College, who took on responsibility for increasing the scope of the medical student neuroscience course after Freedman’s departure from UVM.

Parsons chaired the search committees that brought former Chair of Neurology Robert Hamill, M.D., to the College in 1993. Parsons’ wife had recently passed away, and the two became close friends, with Parsons often serving as Hamill’s “chef” during his Burlington visits. They had much in common, including the loss of their fathers in early childhood, but Hamill’s path to UVM was longer, and originated from an unexpected starting point.

“I wasn’t even going to go to college,” says Hamill, whose family had emigrated from Ireland before his birth. His father later became ill and passed away while Hamill was still a boy. He and his mother, who worked as a maid near their home in Manchester, Conn., were what he describes as poor. But despite his financial disadvantages, Hamill had two good things for him: he was a skilled athlete, and he was bright. Despite his mother’s urgings to encourage him to play sports, Hamill was setting his mind on medicine.

At Wake Forest, Hamill fell in love with both his wife — whom he married his second year — and with neuroscience and neurology. He spent three years in the Navy after medical school, then completed a two-year residency in internal medicine at Strong Memorial Hospital in Rochester, N.Y., a three-year neurology residency, and a four-year NIH research fellowship in developmental neurobiology led him to New York City, where he studied with world-class clinical and basic science mentors at Cornell, and honed his research expertise in Parkinson’s disease.

The Hamill family moved to Rochester, N.Y., in 1980, where he served as a professor of neurology at the University of Rochester. A clinician, teacher and researcher, he ran the Alzheimer’s Center and headed the neurogenontology division, as well as neurology at Monroe Community Hospital. He had built a research group of about 20 people and enjoyed functioning as their “coach,” heading back to his original career aspirations at Springfield in the early 1990s, he reached a turning point in his career; he’d been asked to run the University’s Center on Aging, and colleagues were submitting his name for chair positions at other universities. Then he received a letter from UVM. With his deep love of his native New England, the offer from UVM, which included service leadership at the then Medical Center Hospital of Vermont, was the only one he seriously considered.

“When I came here, I think there were six of us,” says Hamill, whose new department included, among others, Drs. E. Stanley Emery, M.D., who had been acting chair, Rup Tandan, M.D., recent interim co-chair of neurological sciences Timothy Friis, M.D., Joseph McSherry, M.D., Ph.D., and the late Antonio Gomez. In addition, the late Herbert Martin, M.D., who had retired, was still seeing patients part-time. “There was limited clinical research and there weren’t any NIH grants when I came. UVM was broke.” Hamill’s arrival coincided with the early stages of the founding of what would become Fletcher Allen Health Care, and additional recruitment plans were halted. “Those were some challenging years,” admits Hamill, who would do four months of hospital service each year, and ran the clinics — M.S. and Stroke — and started a Parkinson Clinic to keep the department viable.

The concept for a translational science department grew out of Hamill and Parsons’ close camaraderie. “We built our two departments together as autonomous entities, but the concept of cross-campus neuroscience, and have formed support for the importance of having a translational science program,” he says. While Parsons and Forehand were the Neuroscience COBRE principle investigators, the translational core was run jointly by Hamill, whom combined clinical and basic science background fit the role of combining basic and clinical faculty to talk to each other. As a result, they brought faculty member Margaret Vizaud, Ph.D., and later Felix Ekenstein, Ph.D., on board in Hamill’s department, and Rac Nishi, Ph.D., in Parsons’. “Basic science was small here,” says Parsons, who recognized the value of his and Hamill’s collaboration from both a research, Parative, and educational stance. “Neuroscience became the realm of integrated education. “Neuroscience evolved out of basic science disciplines,” he adds. As the field grew, he recruited to meet converging needs, seeking out researchers who could also teach. Among them were Drs. Gary Mawe, Cynthia Forehand, Diane Jaworski, and Victor May. Ellen Black, Ph.D., had been Parsons’ graduate student and had married to teach anatomy. After Freedman left, Parsons increased the scope of Forehand’s responsibilities to include the College’s neuroscience course.

Hamill’s and Parsons’ translational science-building theme migrated into the curriculum as well. When Hamill arrived, the neurology rotation was an elective, not mandatory. That status shifted when a movement led by graduating medical students pushed for the addition of a neurology clerkship. The development of the Nepal Science course in the Vermont Integrated Curriculum also augmented the role of neurology faculty, and Hamill expanded his faculty, clustering them around the areas of systems neuroscience and neural development to enhance the College’s neuroscience course.

The two chairs’ joint work also had a significant effect on research at the College. “The NIH COBRE grants [Center of Biomedical Research Excellence] have really been instrumental in supporting the core concept of cross-campus neuroscience, and have formed support for the importance of having a translational science program,” he says. While Parsons and Forehand were the Neuroscience COBRE principle investigators, the translational core was run jointly by Hamill, whom combined clinical and basic science background fit the role of combining basic and clinical

WHAT does Rod Parsons as a chair is his outstanding support of his faculty in all aspects of their careers. — Cynthia Forehand, Ph.D.

THE PARSONS FILE
Rodney Parsons, Ph.D.

ACADEMIC APPOINTMENTS
Professor of Neurological Sciences, 2013–present
Professor of Co-Chair, Department of Neurological Sciences, 2012–2013
Professor and Chair, Department of Anatomy and Neurosciences, 2011–2012
Professor of Physiology & Biophysics, 1997–2008
Professor of Neuroscience, 1997–2008
Assistant Professor of Physiology & Biophysics, 1990–1997
Professorial Fellow in Physiology, Columbia University, National Institutes of Health, 1981–1987

EDUCATION
1965 B.S., Ph.D., Physiology, Stanford University, Stanford, California
1984 M.B., M.D., Middlebury College, Middlebury, Vermont
University Scholar, 1910–1911
Director of the COBRE Center for Neuroscience Excellence grant

AWARDS AND HONORS
1980–1984, Jacobs-White Neuroscience Investigator Award
1984 National Institute of Health Postdoctoral Fellowship in Physiology, Columbia University

SELECTED RECENT PUBLICATIONS
The cardia sympathtic co-transmitter galanin reduces acetylcholine release and vagally mediated autonomic responses to intestinal distension in vitro, Journal of Molecular Cell Cardiology, 2022
Autonomic hyperactivity and sensibility in human a-sympathetic mice, Developmental Neurobiology, 2021
Proteasome with recombinant calcium channel blockers inhibits the Ca2+-PLA2-induced increase in guinea pig noradrenaline release, Journal of Neurochemistry, 2012
Calcium expression in the mouse major plexus ganglion is down-regulated during aging and following ischemic/reperfusion injury, Journal of Molecular Neuroscience, 2022

SELECTED PUBLICATIONS
Predictive of cognitive outcomes in early Parkinson disease patients: The National Institutes of Health exploratory trials in Parkinson disease [NIH-ET-PD] experience, Parkinsonism Related Disorders, 2018
Caffeine and progression of Parkinson’s disease, Clinical Neuropharmacology, 2018
A pilot clinical trial of creatine and minocycline in early Parkinson’s disease — a randomized controlled trial, Clinical Neuropharmacology, 2018

THE HAMILL FILE
Robert Hamill, M.D.

ACADEMIC / CLINICAL APPOINTMENTS
Professor of Neurological Sciences Emeritus, 2013 to present
Professor, Department of Neurological Sciences, 2012–2013
Professor and Chair, Department of Neurology, 1993–2008
Physician Leader — Neurology-in-Chief, Neurology Health Care Service, Fletcher Allen Health Care and University of Vermont Medical Center, Burlington, VT
Professor of Neurology, Neurobiology and Anatomy, and Medicine, University of Vermont School of Medicine and Dentistry, Burlington, VT, 1980–1993

EDUCATION
1964–1967 National Institutes of Health Postdoctoral Fellowship, Middlebury, Vermont

AWARDS AND HONORS
1964–1968 M.D. Bowman Gray School of Medicine, Wake Forest University, Winston-Salem, N.C.
2016–2017 Distinguished University Teaching Scholar, University of Vermont
2019–2020 Distinguished Faculty Research Scholar, University of Vermont
1996–2012: Best Doctors of America
Springfield College Distinguished Alumni Award, 2012

SELECTED RECENT PUBLICATIONS
A Pilot Clinical Trial of Creatine and Minocycline in Early Parkinson’s Disease — A Randomized Controlled Trial, Journal of Neurotrauma, 2008

“WHAT does Rod Parsons as a chair is his outstanding support of his faculty in all aspects of their careers.” — Cynthia Forehand, Ph.D.

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It has been through [Dr. Hamill’s] mentorship and by his example that I have become the neurologist and clinical researcher that I am today.

— James Boyd, M.D.
Assistant Professor of Neurological Sciences

young faculty across the campus,” says Parsons, whose role as chair has been similarly focused. “The greatest thing has been watching people grow and exceed expectations — Cindy Forehand becoming a major support for the institution. Gary Mawe, who has soared. The development of a University-wide graduate program. It’s been very satisfying.”

“What defines Rod Parsons as a chair is his outstanding support of his faculty in all aspects of their careers,” says Forehand. “He supported my development as a scientist through mentoring and reviews of my grant applications and supported and encouraged my interests in education and administration.”

Along with the construction of the research enterprise, Hamill was busy building the clinical arm and, in particular, a community neurology program. Over the years, he developed a close relationship with Neurology Associates of Vermont, a private practice group near campus originally headed by the late Kenneth Ciongoli, M.D. He brought the physicians from the practice into his department and initiated a shared (50/50) faculty position. When Ciongoli became ill, four of Hamill’s faculty members picked up his patients. The department now manages the Associates office.

“The goal is to continue to recruit general neurologists to the community neurology program,” explains Hamill, who adds that the connection provides excellent educational opportunities, allowing students and residents to experience the environment of a private practice. “I’m going emeritus this year,” says Hamill, “and we had four graduates go into neurology — the clerkship, which is now a little over three weeks long, has been a big boost.” Most schools, he adds, only have about two percent going into the field — the clerkship, which is now a little over three weeks long, has been a big boost. Most schools, he adds, only have about two percent going into the field. Indeed, the vision he and Parsons launched more than fifteen years ago has been realized. They engineered a proposal to merge their departments into the Department of Neurological Sciences. It was approved by the UVM Board of Trustees in 2012 and, in May of this year the newly recruited Gregory Holmes, M.D., took the helm. Hamill and Parsons couldn’t be more proud.

“The uniqueness of this department — it spans an educational realm from undergraduates to residents — makes serving as chair challenging,” says Parsons. “We’re glad to leave our legacy in such capable hands.”

At the College of Medicine Commencement in May, Robert Hamill, M.D., standing at left, listened while his emeritus citation was read by his friend and colleague Rodney Parsons, Ph.D., at lectern. Dean Rick Morn observed at right.