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 shoreline, 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.

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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 Luginbuhl, M.D.,
that he’d serve in the chair’s position for five years. His first recruit was the late Bruce Fonda, M.S., a lecturer in anatomy and physiology who had been trained by longtime anatomist Dallas Boushey, who was set to retire after 50 years’ service. Also among Parsons’ early hires was Jerome Fickens, Ph.D., his former postdoctoral fellow. Over the next two years, as other 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 committee 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 he was still a boy. He and his mother, who worked as a maid near their home in Manchester, Conn., were both described as poor. But despite his financial disadvantages, Hamill had two things going for him: he was a skilled athlete, and he was bright. Despite his mother’s urgings to learn a trade, he decided to attend Dartmouth College, where his high school guidance counselor had other plans for him.

“He gave me Middlebury, Williams, Brown, and Worcester Polytechnic,” says Hamill, who told the counselor, “I really can’t go to any of these. I wouldn’t fit in.” The counselor didn’t let up, and through conversation teased out that Hamill would consider a career as a physical education teacher. So he was steered toward Springfield College — the birthplace of basketball, volleyball, exercise physiology and the YMAC. Thanks to scholarships from his hometown and the college, he was able to afford it. “It really was a life-changing experience,” he says. At Springfield, he mastered anatomy and physiology, biomechanics, and — critical to his future path — the brain’s role in movement. After two years, when Parsons had set his sights on graduate school, but one fateful summer afternoon, a friend’s father — a physician — pulled him aside and asked him if he considered medical school. The suggestion clicked, and he switched to pre-med. His senior year, he was accepted to Wake Forest College’s Bowman Gray School of Medicine and, despite more financial stress, the Dean of students at the school arranged for a full scholarship. Hamill was on his way.

At Wake Forest, Hamill fell in love with both his wife — whom he married his second year — and with neurosciences 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 fellowship 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,” halling back to his original career aspirations at Springfield College. 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 change 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 served 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 neurologists and neurosurgeons E. Stanley Enser, 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, M.D. 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 to the Hamill”.

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’s 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 around a common goal: translational research interests,” says Parsons, who recalls the evolution of the idea beginning with, Hamill and John Evans, Ph.D. — then dean of the College of Medicine. “We thought of it as a mechanism to increase recruitments, to build bridges,” Parsons shares. The two knew that heightened competition and the need to do more translational and clinical work supported their concept, and they wanted to develop an opportunity for basic science and clinical faculty to talk to each other. As a result, they brought faculty member Margaret Vizard, Ph.D., and later Felix Eckstein, Ph.D., on board in Hamill’s department, and Rae 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, Parsons, perspective and the realm of integrated education. “Neuroscience evolved out of other basic science disciplines,” he adds. As the field grew, he recruited to meet correlating 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 Parsons helped her 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 Neural 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 Neuroscience core.

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 advancing 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, whose combined clinical-neuroscientific background fit the role perfectly. He told his colleagues, and other neuroscientists, that “I’m proud of what the COBREs have done. They’ve supported a lot of...
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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 supporter for the institution. Gary Mawe, who has soared. /T_h  e 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 administration. “It was approved by the UVM Board of Trustees in 2012 and, in May of this year it was realized. /T_h  ey engineered a proposal under the direction of Rod Parsons.”

Indeed, the vision he and Parsons launched more than fifteen years ago has been realized. "Discussing neuroscience with students and residents, Dr. Hamill has been the single greatest influence in my career development,” says Parsons. “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 Ciorgoli, M.D. He brought the physicians from the practice into his department and initiated a shared (50/50) faculty position. When Ciorgoli 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.

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field of Parkinson’s disease. “I now work for him — it’s a joy,” exclaims Hamill.

That’s a feeling shared by Boyd. “From my first days of residency to today, Dr. Hamill has been the single greatest influence in my career development,” he says. “Discussing neuroscience with students and residents, Dr. Hamill has the excited expression of a child in a toy store. His passion for the field is inspiring and infectious. It has been through his mentorship and by his example that I have become the neurologist and clinical researcher that I am today.”

Now 28 years past his originally committed service as chair, Parsons counts running the Anatomical Donor Program with limited resources (“it was very smart to modernize and transition it to where it is now”) and former student Amy McDermott’s first-ever-in-the-world recording of neuronal synaptic currents from bullfrog sympathetic ganglion cells among his career “highs.”

“The hardest part of my years as chair was when we lost Bruce Fonda,” he admits. “He was a special person, and an amazing teacher. It was a loss for us all.”

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1980

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In 1905, when the College of Medicine completed its third home at the corner of Prospect and Pearl Streets in Burlington, the main lecture room was named Hall A. For the next 63 years, students (such as the members of a class in the 1950s shown below) learned the science of medicine while perched on those rows of steeply-raked wooden seats. When the College moved to the top of the Hill in 1968, the designation of Hall A moved too to a slightly more comfortable assemblage of orange-upholstered seats on the second floor of the Given Building.

Today’s learning environment fits today’s medical curriculum. Students take in lectures as a class in the Sullivan Classroom, and they work in small group environments and in UVM’s cutting-edge Clinical Simulation Laboratory. The settings have changed, but the mission remains the same: inspiring a lifetime of learning in the service of patients. This section of Vermont Medicine, named in honor of that storied hall, serves as a meeting place in print for all former students of the College of Medicine.

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