

WI

09



gray matters

THE UNIVERSITY OF UTAH
CLINICAL NEUROSCIENCES CENTER



Unhindered Intellect

Vietnamese Village to Neurosciences Lab:
The Amazing Journey of Dr. Duong Huynh

SEEK | PAGE 4

Imaging on the Cutting Edge

Neuroradiology Fellows
Learn Nuances of
Advanced Technologies

TEACH | PAGE 2

Taming Tremors

Deep Brain
Stimulation Helps
Patients Overcome
Movement Disorders

HEAL | PAGE 6

The Pursuit of Insight: A Lifelong Journey

For Duong Huynh, PhD,
Research Associate Professor

of Neurology at The University of Utah, a remarkable journey began on a fateful day in 1968 in his home country of Vietnam.

AT THE age of 11, Dr. Huynh was hit by a stray bullet and paralyzed from the waist down. Today, his mission is to discover ways to regenerate neurons so that someday others might not share the challenges he faces in his daily life.

“When it happened, doctors explained to me that the reason I could not use my legs or have feeling in half of my body was because the gunshot severed my spinal cord,” Dr. Huynh says. “Ever since, I’ve wondered how a single bullet could do so much harm. When I had the chance to start school again in 1977, I knew I wanted to go into science and learn how the body and neurons work.”

Dr. Huynh’s path through school was far from typical—having completed only the first grade prior to his injury, he began studying at the fifth-grade level at age 19 after becoming a U.S. citizen. Two and a half years later, he had completed high school and begun his collegiate career at California State University, Long Beach. Following his undergraduate curriculum, Dr. Huynh obtained a master’s degree, then a doctorate (PhD) in biochemistry and neurobiology from University of California, Riverside.

Focused on Changing Lives

After being hired as an Assistant Professor in Residence and Research Scientist at the University of California, Los Angeles, Dr. Huynh launched his career investigating Parkinson’s disease.

“My current research focuses on the molecular basis of Parkinson’s disease,” Dr. Huynh says. “That includes how proteins and genetic structures cause Parkinson’s and what role environmental factors play in the development of the disease.”

His comprehensive knowledge of the subject matter and dedication to research most recently led him to the Clinical Neurosciences Center at The University of Utah, where he was reunited with two former colleagues.

“Dr. Huynh and I have been good friends from the time we began working in the Pulst Lab,” says Daniel Scoles, PhD, Associate Professor of Neurology.

“I’ve known him for 14 years, and our personal relationship enhances what we are able to accomplish as researchers. We share ideas all the time.”

Dedication Outside the Lab

The work of the Pulst Lab translates into continual striving to meet new research challenges and discover more information. In his personal life, Dr. Huynh brings equal commitment to another worthy pursuit: improving the quality of life of disabled people in his homeland of Vietnam, where more than 2 million children suffer some form of disability and the need for assistance is significant.

“Many farmers are too poor to purchase wheelchairs and other adaptive equipment for their sons and daughters,” Dr. Huynh says. “After I was injured, I was confined to bed for about two years because I had no wheelchair. I remember the feeling I had when I saw a wheelchair being pushed through the door to my bed, returning freedom and mobility to my life. I see that same expression on the faces of children in Vietnam when we bring assistive devices to them.”

In addition to providing mechanical movement

assistance through a group called Social Assistance Program for Vietnam (SAP-VN), Dr. Huynh helps facilitate corrective orthopedic surgical procedures for children. Since its inception, the program has sponsored more than 6,000 children.

“When I go back to Vietnam and see the smiling faces of children SAP-VN has helped and the successes of those children after corrective surgery or receiving a wheelchair, I am filled with joy,” Dr. Huynh says. “I have seen handicapped children crawl across the dirt ground because they have no other way of getting around. I know we make a tremendous difference.”

For more information on current research at the Clinical Neurosciences Center at The University of Utah, visit www.utahneurosciences.com and select “Research.” ☺





“Dr. Duong Huynh is one of the few neuroscientists who is wheelchair-bound, and he is unrestricted, even unperturbed, by it. He has used his disability as inspiration and motivation to research the molecular biology of Parkinson’s disease. In addition, he has been a model and mentor for Vietnamese students interested in biology and neuroscience.”

—STEFAN PULST, MD, PROFESSOR AND CHAIR OF THE DEPARTMENT OF NEUROLOGY AND MEMBER OF THE BRAIN INSTITUTE AT THE UNIVERSITY OF UTAH

Finding Genes, Creating Hope

Locating genetic markers for conditions ranging from Parkinson’s disease to neurofibromatosis 2 to multiple sclerosis is the aim of the dedicated researchers working in the Pulst Laboratory.

LED BY Stefan Pulst, MD, Professor and Chair of the Department of Neurology for the Clinical Neurosciences Center and member of The Brain Institute at The University of Utah, the Pulst Lab is investigating human neuro-anatomy for clues to possible cures.

“The team I am currently working with is following up on our discovery of the SCA 2 genes with the aim of identifying drugs that target gene expressions,” explains Daniel Scoles, PhD, Associate Professor of Neurology and a researcher at the Clinical Neurosciences Center. “The larger aim is to find answers and

offer treatment or cures to patients with neurofibromatosis 2.”

USING HISTORY TO SHAPE THE FUTURE

As part of their continuing explorations of the SCA 2, SCA 10, and SCA 13 genes, Pulst Lab researchers are utilizing the Utah Population Database—the only resource of its magnitude in the United States for genetic, demographic, and public health studies—to track the genetic epidemiology of Parkinson’s disease. Even at this early stage of

the investigation, researchers’ hopes are high that tracing incidence of this disease through many generations will provide powerful insights.

“Our work is a classic example of bringing leading-edge research from the laboratory to the patient’s bedside,” Dr. Pulst says. “Our goal is to improve lives using the power of science, so it is impossible to stress the importance and value of our work to the future of treating these diseases.”

Visit www.utahneurosciences.com, for more information about these research programs. 