

SEPTEMBER 24, 1975

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*\*\*\*\*\*Protein's action at nerve  
endings to be studied by  
UTHSCD neurologist.*

DALLAS--A commonplace protein whose activity at nerve endings is still not well understood will be investigated by University of Texas neurologist Dr. Howard Feit under a \$102,057 federal grant.

Dr. Feit, assistant professor of neurology at The UT Health Science Center at Dallas, has received a three-year award to study the protein, called "Tubulin," from the National Institute of Neurological and Communicative Disorders and Stroke.

Knowledge gleaned from the research could help medical scientists better understand senile dementia, a widely prevalent form of mental deterioration that is a major health problem among the aging.

This disorder, resulting in loss of memory, is a primary cause for hospitalization among the elderly. In its victims, an abnormal accumulation of a fibrous protein called the "twisted tubule," is found, Dr. Feit said.

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"The disease process begins at the end of the nerve fibers," he explained, "and we suspect that some aberration in tubulin metabolism occurs at this point to interfere with normal transmission of messages."

Although tubulin is the most abundant protein found in the brain, little actually is known about its precise function at the nerve ending or "synapse," Dr. Feit says.

Using normal tissue from small animals, he will seek to track down those intricate biochemical changes that occur in the tubulin molecule. Scientists believe tubulin may play a part in the process (called "synaptic specificity") whereby one nerve cell knows how to connect with the next. Or it may be the biochemical "glue" that maintains contact between two nerve cells.

"If we can understand biological processes, we can be in a position to recognize abnormalities and understand what happens in disease processes," he explained. "Once a biochemical abnormality is identified, it's possible that a therapeutic agent could be developed to correct that abnormality."

But, he stressed, "we are a long way from that. We don't even understand much about the events that occur normally."

A new member of UT Southwestern Medical School's faculty, Dr. Feit holds M.D. and Ph.D. degrees from Albert Einstein College of Medicine. He was with the University of Colorado School of Medicine in Denver before joining the Dallas school July 1.