



National Multiple Sclerosis Society awards grant to University of Kansas researcher

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May 14, 2007, LAWRENCE — Teruna Siahaan, professor of pharmaceutical chemistry at the University of Kansas, has won a research grant from the National Multiple Sclerosis Society. Siahaan will use the award to investigate experimental treatments for Multiple Sclerosis involving a promising compound of his own discovery.

“We’re thrilled that Dr. Siahaan has joined the movement to a world free of MS,” said Kay Julian, president of the Mid America Chapter of the National Multiple Sclerosis Society. “Research by scientists like Dr. Siahaan will one day find the cause and the cure for multiple sclerosis, a debilitating disease that affects more than 400,000 individuals nationwide.”

It is believed that MS affects the central nervous system, consisting of the brain, spinal cord and optic nerves. In patients with MS, the immune system mistakenly attacks myelin, a fatty tissue that insulates nerve fibers and helps them to conduct electrical impulses.

“How the myelin sheath gets destroyed is the focus of our work,” said Siahaan. “We’re trying to change the mind of the immune system’s attackers. Instead of attacking myelin cells, we want the attackers to be tolerant of the cells.”

The \$217,595 grant will support Siahaan’s work on a compound called PLP-BPI, which contains myelin proteins and molecules that stop immune cells from damaging the nervous system. Siahaan developed PLP-BPI himself.

“It’s actually a piece of protein we form using an automated synthesizer in our lab,” said Siahaan of the new compound.

Siahaan has shown that PLP-BPI halts the progress of EAE, a disease similar to MS that affects mice.

“We induce the mice to get EAE and then we challenge them with a very small amount of the molecule that we’ve discovered,” said Siahaan. “We basically suppress the progression of the disease compared with animals that get injected with the control molecule.”

With the National Multiple Sclerosis Society grant, Siahaan will examine the effects of PLP-BPI on mice already suffering the onset of EAE symptoms. He will also attempt to shed light on the compound’s mechanism for fighting the disease. Eventually, the grant-funded work could lead to therapies for people with MS.

“If we can, we’ll move to humans in the future with clinical trials,” said Siahaan. “First, we’ll look at the stability of the molecule and its side effects. Because it has to be safe.

A committee of more than 70 eminent scientists who peer review hundreds of research proposals each year awarded the grant to Siahaan.

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