



The historic investment in research through the American Recovery and Reinvestment Act is funding promising science that is improving health, while contributing to the economy. View more stories at www.sfn.org/recovery.

PARKINSON'S DISEASE:

“Center for Gene Environment in Parkinson’s Disease”

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Supported by the National Institute of Environment Health Sciences, National Institutes of Health

GRANT DESCRIPTION

This research explores the interplay between genetic variations and environmental factors such as exposure to agricultural pesticides in causing the neurodegenerative disorder Parkinson’s disease that affects approximately 2 in 100 people over the age of 65. This research uses information from studies in patients with the disease to generate animal models to study the mechanisms leading to Parkinson’s disease and develop and test new treatments.

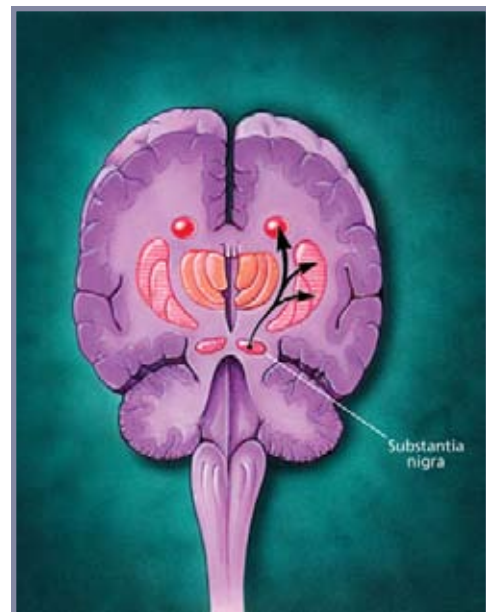
SCIENCE AND HEALTH IMPLICATIONS

Understanding mechanisms is essential to develop treatments to stop or reverse the relentless loss of neurons that leads to increased disability in the patients. No such treatment exists at this time. In addition, the research will help understand risk factors to develop the disorder, which has implication for individuals and for public policies. This particular supplement provided funding for students to be hired for summer research, allowing them a great opportunity to be exposed to laboratory work, and helping guide their career decisions later in life.

RESEARCH IMPACT: IN THEIR WORDS

“My summer experience far surpassed my expectations; I learned more than I could have ever imagined and I’m truly grateful for such a wonderful experience! ...Not only did I learn new lab techniques, but I truly learned what it was like to be involved in a lab... It is very difficult for undergraduates to find opportunities like this where we can grow with and work directly on a project. I’ve already been able to apply my new found knowledge in my classes... after reflecting on all of the new experiences, I plan to pursue pediatric neurology!”

–Testimony from a student hired through the Summer Research Experiences program



Parkinson’s disease occurs when cells located in a small area of the brain known as the substantia nigra become damaged or destroyed and stop producing dopamine, causing slowed movements, rigidity, and tremors. Copyright 2004 Society for Neuroscience. Image credit: Illustrations by Lydia Kibiuk.

The Society for Neuroscience (SfN) is the world’s largest organization of scientists and physicians devoted to advancing understanding of the brain and nervous system. Since its inception in 1969, the Society has grown from 500 members to more than 40,000.