Inquiro, the UAB undergraduate science research journal

Volume 2011 | Number 5 Article 6

2011

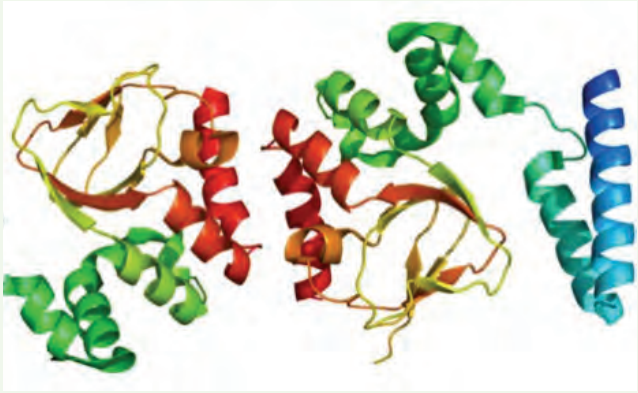
Say Goodbye to Chronic Pain

Sadhvi Batra

Say Goodbye to Chronic Pain

Sadhvi Batra

According to *Science* magazine, researchers at Cambridge University have identified the gene HCN2, which produces a protein associated with the onset of chronic pain. There are currently an estimated 116 million people living with chronic pain in the United States alone, and five percent of the overall global population is affected by this condition. Because it can lead to serious problems like depression, fatigue, anxiety, and loss of mobility, finding a cure for chronic pain in the near future is imperative.



The discovery of HCN2 provides the potential for curing neuropathic chronic pain, pain arising from injury to the nervous system. In the experimental trials following the isolation of HCN2, laboratory mice were bred to be deficient of the HCN2 gene. From these trials, research personnel observed that the mice continued to respond to sudden pain but did not suffer from neuropathic chronic pain.

This finding is critical to the fields of research and medicine, because it illustrates that the manipulation of a single mechanism can lead to the termination of the entire biological response. By removing the gene HCN2, researchers skillfully eradicated chronic pain but still maintained the crucial pain responses necessary for survival.

According to The Academy of Pain Medicine, healthcare costs to cover chronic pain in the United States range from $560 billion to $635 billion annually. Still, current medications are not effective in treating this condition. By isolating the HCN2 gene, researchers provide hope for a future cure for neuropathic chronic pain. This is sure to alleviate the suffering of millions of people.

Sources:

http://www.huffingtonpost.com/2011/09/10/chronic-pain-gene-hcn2_n_956092.html

http://www.painmed.org/patient/facts.html

http://medicalxpress.com/news/2011-09-chronic-pain-genei-dentified.html