

Researchers discover gene linked to adult-onset obesity

June 10 2008

Researchers at the University of Minnesota have discovered a gene that may provide a clue as to why obesity rates increase with age. The research was published today in the *Proceedings of the National Academy of Sciences*.

Researchers in the lab of Kevin Wickman, Ph.D., associate professor of pharmacology at the University of Minnesota Medical School, removed a single gene from mice as part of an ongoing study to understand how the brain controls heart function. While some cardiac deficiencies were detected in these mice, the researchers unexpectedly found that these mice exhibited a predisposition to adult-onset obesity.

"This was not an outcome we expected, but now we have an animal model that may provide new insight into human obesity," said Wickman, co-author of the article.

By examining closely where this gene, termed *Girk4*, is expressed in the body, the researchers found particularly high levels in the hypothalamus, a brain region involved in regulating food intake and energy expenditure. Wickman speculated that disruption of normal function in the hypothalamus may underlie the obesity seen in the mutant mice, but he acknowledges that more research is needed to understand where and how this gene works, and consequently, why mice missing this gene develop obesity.

The age-dependence of the obesity seen in this mouse model mimics

human obesity patterns, researchers said. Indeed, the likelihood of people developing obesity more than doubles between the ages of 20 and 60.

"This is a novel finding that may provide important new insight to the underlying cellular mechanisms that influence obesity," said Catherine Kotz, Ph.D., co-author of the article, scientist at the Minneapolis VA Medical Center and adjunct professor in the Department of Food Science and Nutrition at the University of Minnesota.

Source: University of Minnesota

Citation: Researchers discover gene linked to adult-onset obesity (2008, June 10) retrieved 18 April 2024 from <https://medicalxpress.com/news/2008-06-gene-linked-adult-onset-obesity.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.