

Scientists identify possible drug target for acute pancreatitis

May 31 2012

Scientists from the Universities of Illinois and California have found that the inflammatory protein interleukin-6 (IL-6) plays a pivotal role in the duration of acute pancreatitis in animal models with this condition. Their report, in the June 2012 issue of the *Journal of Leukocyte Biology*, describes experiments in lean and obese mice that identify the presence of high IL-6 as one of the reasons why the disease is more devastating in obese people.

"The study helps to understand why acute pancreatitis is more prolonged in obese subjects," said Giamila Fantuzzi, Ph.D., the senior researcher of this work, from the Department of Kinesiology and Nutrition at the University of Illinois at Chicago. "Our data indicate that IL-6 participates in prolonging inflammation in obese mice with acute pancreatitis, but also show that this [inflammatory mediator](#) is not the most important factor in determining the severity of the acute response."

To make this discovery, researchers used lean and obese mice that do and do not produce IL-6. They induced [acute pancreatitis](#) in all mice and studied them at different times of the disease. Both groups of the lean mice developed mild disease and then promptly recovered. Both sets of obese mice developed more severe disease at its onset. For the obese mice that did not produce IL-6, the course of the disease was much shorter than in the [obese mice](#) that did produce IL-6. It is also important to note that obesity leads to elevated levels of IL-6 and other inflammatory proteins.

"There is an increasing awareness that obesity and inflammation are connected," said John Wherry, Ph.D., Deputy Editor of the [Journal of Leukocyte Biology](#). "Not only does this new report demonstrate an important set of interactions between obesity, pancreatitis, and inflammation, but it also identifies the inflammatory pathway, IL-6, which could represent an important new [therapeutic target](#) in these settings."

More information: Maria Pini, Davina H. Rhodes, Karla J. Castellanos, Andrew R. Hall, Robert J. Cabay, Rohini Chennuri, Eileen F. Grady, and Giamila Fantuzzi. Role of IL-6 in the resolution of pancreatitis in obese mice. *J. Leukoc Biol.* June 2012 91:957-966; [doi:10.1189/jlb.1211627](https://doi.org/10.1189/jlb.1211627)

Provided by Federation of American Societies for Experimental Biology

Citation: Scientists identify possible drug target for acute pancreatitis (2012, May 31) retrieved 6 May 2024 from <https://medicalxpress.com/news/2012-05-scientists-drug-acute-pancreatitis.html>

<p>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.</p>
--