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Diabetes-obesity clue surfaces

'Blockbuster' finding may result in new test

By Anita Manning
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Scientists have discovered a hormone in the fat cells of mice that blocks the action of insulin and may solve the mystery of why overweight people are more likely to develop the most common form of diabetes.

This "blockbuster" discovery, reported in today's issue of the journal *Nature*, could lead to new tests to identify people at risk for type 2 diabetes and to effective new treatments, says Allen Spiegel, director of the National Institute of Diabetes and Digestive and Kidney Diseases, which financed the research.

About 90% of the more than 16 million diabetics in the USA have type 2, which results from the body's inability to use insulin. The rarer type 1 occurs when the pancreas produces no insulin.

In recent years, experts say, there has been a dramatic increase in the incidence of type 2 diabetes in the USA, linked to the expanding American waistline. An estimated 80% of people with type 2 diabetes are overweight, but scientists haven't understood why obesity leads to diabetes.

A team of researchers found the new hormone while investigating a class of anti-diabetic drugs called thiazolidinediones, or TZDs.

In mice, the researchers found that high levels of the hormone, which they named resistin, correspond to greater insulin resistance.

If further research finds that a high level of resistin in humans is as predictive of diabetes as it is in mice, scientists will try to develop new drugs to block the hormone, says lead researcher Mitchell Lazar, director of the Penn Diabetes Center at the University of Pennsylvania School of Medicine.

Lazar says dramatically high levels of the hormone were found in obese mice, especially those obese from overeating. Whether that will be the same in humans is being investigated, he says.

Robert Sherwin, president of the American Diabetes Association, calls the report important, but says that "only time will tell us how important. Mice are not people. . . . Until we can translate this in (human studies), one has to be cautious."