

## Holding the Promise of a Treatment for Obesity?

Lipin is a protein that controls how the body produces and uses fat. A lack of lipin causes a loss of body fat, whereas excess lipin promotes extra body fat.

Based on these findings, Professor George Carman and his team have looked for ways to control fat production in cells. Their work holds the potential of treating conditions such as obesity or the loss of fat experienced by HIV patients.

One of the first breakthroughs for Professor Carman's team was the discovery that lipin is an enzyme required for the formation of fats called triglycerides. Triglycerides come from fats in foods or are made in the body from other sources, such as carbohydrates. Calories that are eaten but not immediately used are converted to triglycerides and transported to fat cells to be stored.

To regulate the body's production of fat, researchers can either target lipin or the gene that produces it.

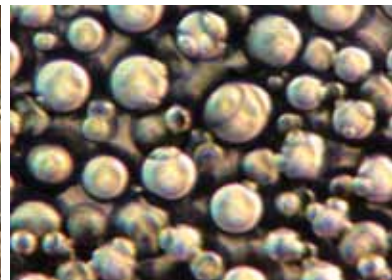
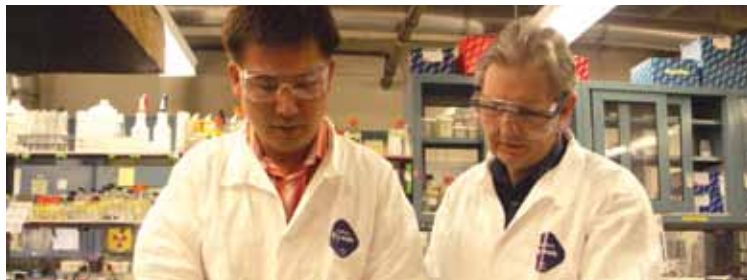
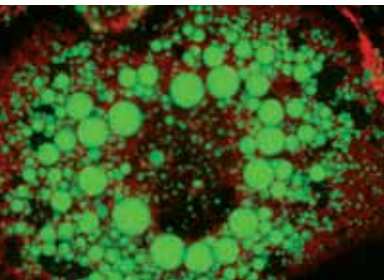
Carman and his team are focusing on the enzyme activity of lipin. Their challenges are to find the exact locations on the molecule where this process occurs, as well as to discover which molecules will effectively impact it. This could lead to a drug treatment for weight-related health problems.

In the United States, obesity now affects one-third of adults, who have a higher risk of type II diabetes and other weight-related diseases, according to the Centers for Disease Control and Prevention. A national health objective is to reduce the prevalence of obesity in adults to less than 15 percent by 2010.

You can make a difference in the fight against obesity by funding Professor Carman's research. Please contact The Office of Development at 732-932-5000, ext. 576 or [development@sebs.rutgers.edu](mailto:development@sebs.rutgers.edu) for more information.

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