

*Cecile Hoover Counts Calories
In Rats' Diets To Discover—*

A Better Diet for You

by Lois Kobout



Rat experiments like Cecile Hoover, Helen Clark and Janice Foth (left to right above) are performing are the key to better human nutrition.

ADHESIVE tape is as much a part of Cecile Hoover as her dark curly hair and patient smile. When questioned about the tape on her thumb she admits that her rats bite the hand that feeds them.

Miss Hoover, a research associate in foods and nutrition, force-feeds dozens and dozens of albino rats twice a day at 8 a.m. and 8 p.m. Using a syringe and catheter, she squirts specific amounts of controlled diets down the throats of her rats. Bites and scratches result the first time she feeds them, but after this, it means "food," and they look forward to it, she says.

32-Day Diet Controlled

Through her research Miss Hoover intends to discover the effect of certain foods and diets on humans. Her rats play an important part in this scientific ob-

jective, for she feeds them a controlled diet for 32 days, adding a certain amount of methionine (an amino acid) to each of the diets.

Although Miss Hoover has not completely determined the results of her rat experiments, she feels that methionine added to protein-free and low-fat-content diets improves the animals to near-normal. She also feels that adding methionine to a low-calorie diet seems to improve the rats noticeably. When applied to human beings, this would mean that people in a starving, wounded or burned condition might be saved through the healing effects of methionine.

Miss Hoover feeds protein-free diets with a high or low fat content to her rats for a period of 32 days. Some rats are also fed protein-free diets but in addition they are given only 25 percent of the normal amount of calories. Each rat is given a certain amount of methionine so that its effect can be studied in all instances.

Internal Studies Follow

At the end of the 32-day diet, the rats are given an electric shock. Although 110 volts of electricity are shot through the animal, he is not killed. He is merely stunned into unconsciousness which permits Miss Hoover to carry on her experiments. She removes some of the rat's blood and internal organs, and compares them to blood and organs of rats which have been fed normal diets. This way she can see the harmful effects of fat-free, protein-free diets, and also determine the related effect of methionine.

Due to her excellent research, Miss Hoover has already been honored by scientific societies — Sigma Delta Epsilon, graduate women in science; Iota Sigma Pi, graduate women in chemistry; Alpha Kappa Mu, honorary scientific society; and Beta Sigma Chi, honorary women in chemistry. She has had papers published in national research magazines.

She became a youthful doctor of philosophy this March. She received her Bachelor of Science degree at Tuskegee Institute, Alabama, and was awarded a Swift and Co. fellowship to obtain her master's degree. Now she continues her research at Iowa State College as a fellow of the General Education Board by the Rockefeller Foundation.