

Tomato-soy diet reduces cancer

By Tina Moore

Lantern staff writer

A diet rich in tomato products and components in soy may help reduce the risk of cancer, said an Ohio State researcher.

Now researchers wonder if combining tomato and soy into one product could enhance their positive effect.

Steve Schwartz, professor of food science and technology, will be teaming with other OSU professors to develop and test a new product that contains both soy and tomatoes.

Tomatoes contain the chemical compound lycopene that is not only responsible for giving them their red pigment, but is also believed to reduce the risk of prostate and breast cancer, Schwartz said.

"Studies have shown that consumption of soy products promotes the health of the prostate, mammary, skeletal and neuronal tissues," said Mark Failla, professor and chair of

the department of human nutrition.

Failla's research will simulate the digestion of the combined tomato and soy test foods and examine how well the product is absorbed in the body. This will be done using invitro model systems that will ease the screening of the newly developed foods to determine if the compounds remain stable throughout digestion, he said.

"There is little information about how the processing and mixing of different foods will affect the absorption of the bioactive substances in tomato and soy," Failla said. "This information will be useful for deciding which foods will be subsequently tested in the controlled human studies."

The challenge is marketing soy, said Josh Bomser, assistant professor of food science and technology and co-investigator in the study.

"Soy isn't very well accepted in the western diet," Bomser said. "It is becoming more commercially acceptable, but it remains to be seen mainly in the Asian diet."

Tomato products are quite prevalent in the western diet, so adding soy to a sauce may be the best way to have it accepted by the western diet, Bomser said.

"Our goal is to bring these two foods together into a product that is healthy and that can be used in the clinical trials involving humans," said Dr. Steven Clinton, director of cancer prevention and control at the Comprehensive Cancer Center.

Clinton will be testing the product on people in clinical trials in the third year of the study.

They will first be testing healthy volunteers interested in eating a tomato and soy product, Clinton said. The volunteers will consume the product in single meals, and researchers will collect blood samples to determine how well it absorbs into the blood.

"If all goes well with that part of the study, then we will begin testing on people who are at risk for cancer," Clinton said.