

THE POWER OF PRODUCE

Researchers unlock secrets 'From Crops to the Clinic to the Consumer'

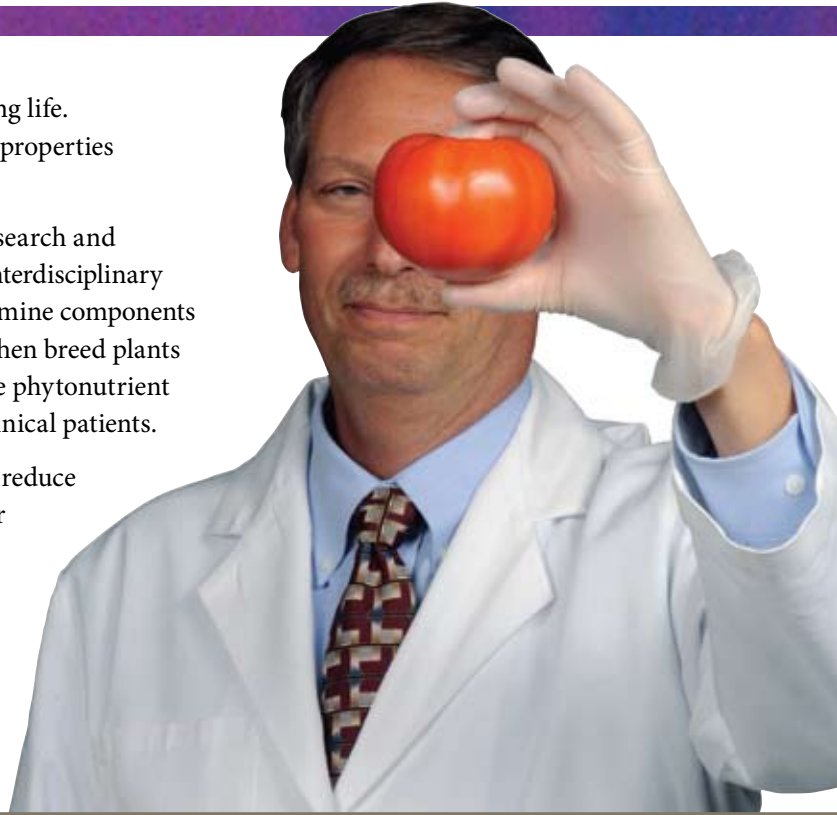
Steve Schwartz believes the right foods can enhance and prolong life. Tomatoes, berries, soy — these foods and more have beneficial properties that researchers are just beginning to discover.

Schwartz leads the Center for Advanced Functional Foods Research and Entrepreneurship (CAFFRE), an umbrella organization for an interdisciplinary group of Ohio State University researchers. The researchers examine components of plants that promote health — called phytonutrients — and then breed plants to boost the phytonutrient content; create products to promote phytonutrient effectiveness; then test the products in the laboratory and in clinical patients.

"If we're successful, people could actually change their diet and reduce their risk of developing chronic illnesses over their lifetimes, or perhaps slow the development of a disease after it strikes," Schwartz said.

More information: <http://fst.osu.edu/caffre/>

Steve Schwartz, Food Science and Technology ▶

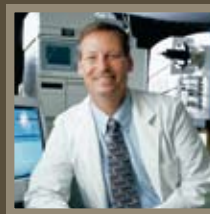


"If we can develop a tomato product that, when consumed in modest amounts, reduces prostate-cancer risk by even 10 percent, we are talking about preventing 22,000 cases per year in the United States."

— Dr. Steve Clinton, medical oncologist with the James Cancer Hospital and CAFFRE partner

CAFFRE scientists have uncovered disease-fighting properties in soy (heart disease), tomatoes (prostate cancer), broccoli (bladder cancer), and black raspberries (colon, esophageal, and oral cancer). CAFFRE-designed products being tested in clinical settings include:

- Soy-tomato juice, rich in lycopene and other phytochemicals that improved participants' blood lipid levels and antioxidant status in pilot clinical trials
- Black raspberry lozenges, being tested for effectiveness against tumors in patients diagnosed with oral cancer
- High-protein soy bread, examined for its role in promoting heart health



As a young scientist, Steve Schwartz was fascinated by how food can affect health — good and bad. But, while food toxicology held some interest, "I decided that I'd rather look at the positive." It turned out to be a good choice. Schwartz, along with Mark Failla in human nutrition and Steve Clinton in the College of Medicine, have assembled a unique team of food scientists, plant breeders, nutritionists, oncologists, and other researchers to unlock the secrets of health-promoting food components. In 2007, Schwartz was named a fellow in the American Association for the Advancement of Science for his contributions in food chemistry and health, particularly antioxidants and other components related to chronic disease, oxidative stress, bioavailability, and cancer.

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