

Scientist studies benefits of black raspberries for cancer patients

by Julie Johnston

SPH Staff Writer

The black raspberries that appear in forests and backyards throughout Appalachia may eventually save the lives of local people.

Research conducted by Christopher Weghorst, associate professor in SPH's Division of Environmental Health Sciences, will examine the chemopreventive potential of black raspberries to slow or even prevent oral cancer in humans. Cancer is the second-leading cause of death in the United States, and Ohio ranks ninth in the nation for the highest overall cancer mortality.

Weghorst received a four-year, \$960,000 grant from the American Cancer Society to study whether black raspberries and their powerful antioxidants help treat oral cancer among Appalachian populations, who tend to have a higher incidence of oral cancer than other groups.

"Oral cancer is a disease with a very high recurrence rate and a high mortality rate," Weghorst said. "For those patients who have been surgically treated for oral cancer, approximately 20 percent will return within 18 months with another oral cancer developing."

Weghorst's previous research has shown that cancerous mouth tumors in hamsters were reduced by as much as 44 percent when black raspberries were part of their diet.

The new study will be conducted in two phases, first with 60 patients who have been diagnosed with oral cancer and are awaiting surgery at the James Cancer Hospital at The Ohio State University. They will be given 4 grams of black raspberries per day in the form of troches, similar to a small candy. Each troche (pronounced tro-key) is made from freeze-dried raspberries harvested from the same Ohio farm to ensure controlled growing conditions.

This dosage will continue until surgery. Weghorst and fellow researchers will determine whether the black raspberries had any impact on the expression of key genes in the tumors by the time of surgery.

The second phase of the study will examine whether the long-term administration of black raspberries is actually feasible and if so, whether this can prevent the oral cancer from reoccurring. Following surgery, patients will receive black raspberry troches for six months.

Weghorst said patients in the study will keep journals and receive regular phone calls asking whether they have continued to use any form of tobacco and/or alcohol. Patients will be examined by James physicians over the next few years to check for recurrent cancer.



The American Cancer Society presented a check to Chris Weghorst, associate professor in SPH's Division of Environmental Health Sciences, as part of a four-year grant to study the potential of black raspberries to slow or prevent oral cancer in humans.