

## **Black Raspberries Battle Leukemia**

Oregon Black Raspberries are again working in the front lines of the battle against cancer. Looking more like a medicinal superfruit than ever, black raspberries are flexing their muscles against leukemia, one of the deadliest forms of cancers.

Scientists at the University of Pittsburgh report that a naturally occurring extract from black raspberries killed leukemia cells in cultures while sparing healthy cells. Xiao-Ming Yin, MD, Ph.D, associate professor in the Department of pathology also a member of the Comprehensive Cancer Center and associate director of pathology at Presbyterian-Shadyside Hospital has found that cyaniding – 3- rutinoid (C-3-R), a water soluble flavonoid is a potent anti-carcinogen.

The C-3-R was tested on several cell lines of human leukemia and repeated using cell cultures of lymphoma, another immune system based cancer. The scientist found that when applied at low doses, C-3-R killed half the cancer cells within 18 hours of treatment. When applied at higher doses, the black raspberry extract killed all cancer cells present within 18 hours. These results were repeated on differing leukemia cancer cells with identical results.’

“Current treatment for leukemia, such as chemotherapy and radiation, often damage healthy cells and tissues and can produce unwanted side-effects for many years afterward” said the study author, Dr. Yin. “So there is an intensive search for more targeted therapies for leukemia worldwide”.

When Yin and his colleagues treated healthy human blood cells with C-3-R they found no apparent toxic effects on these cells.

“If we can reproduce these anticancer effects in animal studies,” Dr. Yin added, “ this will present a very promising approach for treating a variety of human leukemias and, perhaps lymphomas as well.”

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