

Compound found in common wart treatment shows promise as leukemia therapy

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A new potential leukemia therapy targets only cancer cells, while leaving healthy cells alone. Many current chemotherapy treatments affect cancer cells and healthy cells, causing significant side effects, such as fatigue, hair loss, nausea, anxiety and depression. This research is being presented at the 2011 American Association of Pharmaceutical Scientists (AAPS) Annual Meeting and Exposition in Washington, D.C., Oct. 23 - 27.

Leukemia is a cancer of the blood and bone marrow, the spongy center of bones where blood cells are formed. According to the <u>Leukemia</u> and Lymphoma Society, an estimated 43,050 people were diagnosed with leukemia in the U.S. in 2010.

Lead researcher and AAPS fellow, Peter A. Crooks, Ph.D., and his colleagues from the University of Arkansas for Medical Sciences have developed a potent compound that only impacts cancer cells, and starts killing them as early as four hours after treatment begins.

"This is one of the most potent and selective compounds I have ever seen during my more than 30-year career," said Crooks.

The molecules used to create this anti-leukemic agent are structurally similar to the compound found in many gout treatments and over-the-counter products used to treat warts, which also prevent cell growth. This agent is able to reach <u>cancer cells</u> before they mature, so catching the disease in its early stages will eradicate it quickly. This is especially vital



for treating acute myeloid leukemia, which progresses rapidly without treatment.

"It's good to get excited in the early stages of research when you discover a treatment that could potentially be as outstanding as this," said Crooks. "However, the next phase is to test the treatment in animal models and pinpoint the most effective delivery method."

Provided by American Association of Pharmaceutical Scientists

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