

Human lung tumors destroy anti-cancer hormone vitamin D

April 20 2009

Human lung tumors have the ability to eliminate Vitamin D, a hormone with anti-cancer activity, a new study from the University of Pittsburgh Cancer Institute (UPCI) suggests. Results of the study are being presented at the 100th annual meeting of the American Association for Cancer Research (AACR), April 18 to 22, in Denver.

"High levels of [Vitamin D](#) help the body produce proteins with anti-tumor activity," explained principal investigator Pamela Hershberger, Ph.D., a research assistant professor in UPCI's Department of Pharmacology and [Chemical Biology](#). "We've discovered that [lung cancer](#) cells make an enzyme called CYP24, which counteracts the positive effects of Vitamin D. To better study it, we developed the first radioactive-free assay that measures the amount of Vitamin D in tissues and blood."

According to Dr. Hershberger, this test is sensitive enough to have clinical potential. "We hope this new assay will help identify the best approaches to maintain therapeutic levels of Vitamin D in tissues," she said.

Lung cancer is the leading cause of [cancer](#) death in the United States in both men and women, killing 160,000 people annually, and remains one of the most difficult cancers to treat. The five-year survival rate remains low, and better treatments are much needed. According to Dr. Hershberger, it is possible that one day Vitamin D could be used as a chemopreventive agent to improve patient outcomes.

Source: University of Pittsburgh Schools of the Health Sciences ([news : web](#))

Citation: Human lung tumors destroy anti-cancer hormone vitamin D (2009, April 20) retrieved 6 May 2024 from

<https://medicalxpress.com/news/2009-04-human-lung-tumors-anti-cancer-hormone.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.