

## Using light and chlorophyll to destroy tumors

## May 2 2012

A team of Weizmann Institute of Science researchers is developing an innovative photodynamic approach to destroying tumors. The technique, developed by Prof. Avigdor Scherz of the Department of Plant Sciences and Prof. Yoram Salomon of the Department of Biological Regulation, is based on a non-toxic chemotherapy drug—a water-soluble derivative of the green plant pigment chlorophyll—that is injected into the blood stream or directly into the tumor.

When the drug is illuminated by light in a controlled fashion in the tumor it becomes toxic, destroying tumor blood vessels and cells while having a minimal effect on healthy tissue.

This new, "green" photodynamic material was found to be efficient in curing melanoma with a success rate of 85 percent. It clears from the body faster than the materials used in standard photodynamic therapy, which tend to leave patients with a heightened sensitivity to strong light. This technique is being developed for future therapeutic applications through Yeda.

## Provided by Weizmann Institute of Science

Citation: Using light and chlorophyll to destroy tumors (2012, May 2) retrieved 27 April 2024 from <u>https://medicalxpress.com/news/2012-05-chlorophyll-tumors.html</u>

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.