AMERICAN ASSOCIATION FOR CANCER RESEARCH
Ut Cancrum Vincamus
1907

Cancer Research

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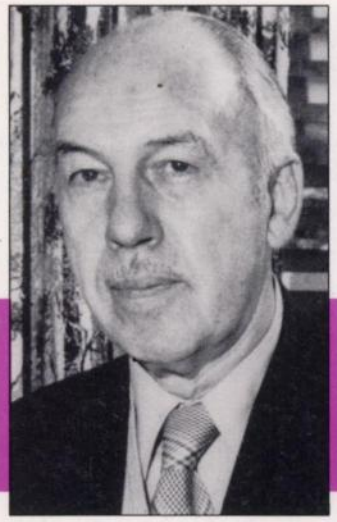
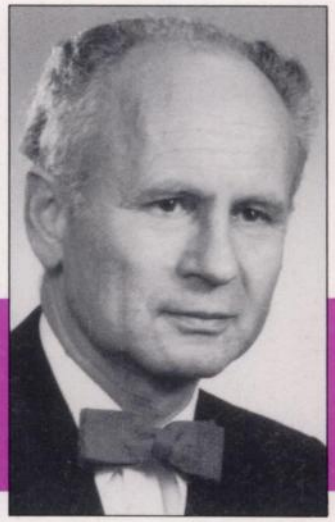
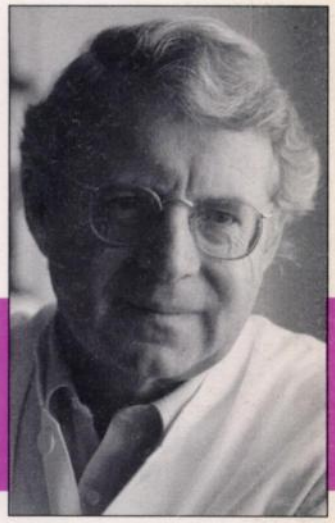
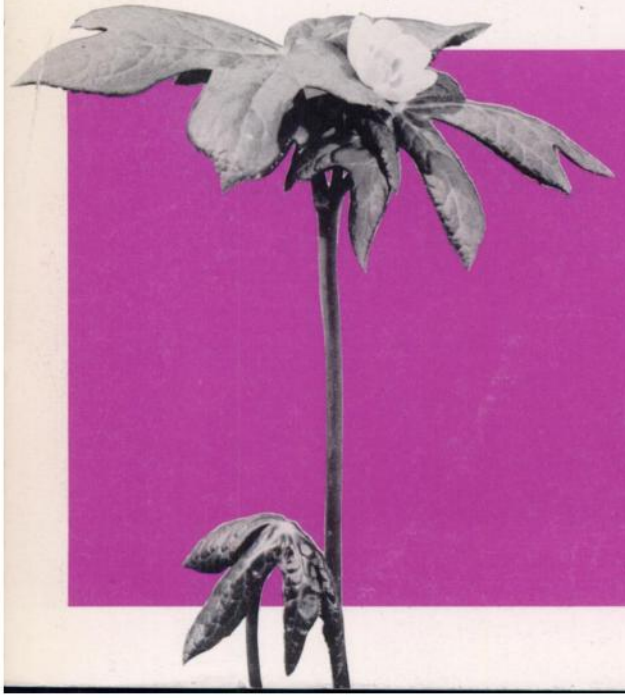
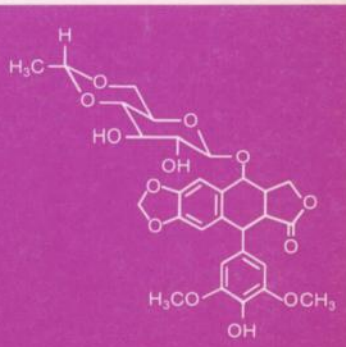
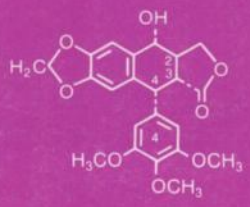






Etoposide





Podophyllotoxin

This space contributed as a public service.

WE HAVE ONLY GOOD THINGS TO SAY ABOUT CANCER OF THE COLON.

If detected early, the cure rate for colorectal cancer is very high.

It can be as high as 75%.

Because we now know how to detect it early. And we know how to fight it once we detect it.

There are three simple checkup guidelines for men and women without symptoms.

One, get a digital exam every year. This is recommended for everyone over 40.

Two, get a stool blood test every year if you are over 50.

Three, after two initial negative tests one year apart, get a procto exam every three to five years if you are over 50.

These guidelines are the best protection against colorectal cancer you can have.

If you're not over 50, please give this information to friends and loved ones who are.

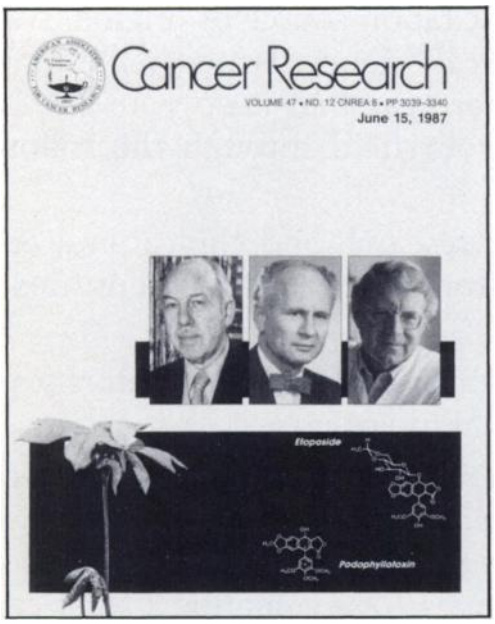
In any case, please help spread the word.

Good news doesn't always travel fast.

AMERICAN CANCER SOCIETY®

Get a checkup. Life is worth it.

COVER LEGEND



Extracts of the roots of two plants of the genus *Podophyllum*, the American mayapple (*P. peltatum*) and Indian podophyllum (*P. emodi*), were used for many centuries as emetics and cathartics. The correct chemical structure of podophyllotoxin was established by Jonathan L. Hartwell of the National Cancer Institute. Podophyllotoxin inhibited several transplantable tumors in mice (J. Natl. Cancer Inst., *14:* 967, 1954) but was evaluated as too toxic for clinical use in patients with cancer.

Sandoz, Ltd. of Basel, Switzerland, undertook the study of the antitumor activity of podophyllotoxin and its glucosides. Hartmann Stähelin, head of the cancer research group, and chemists led by A. von Wartburg introduced two glucosides, teniposide and etoposide (Eur. J. Cancer, *6:* 303, 1970). These compounds had a new mechanism of action, arresting the cell cycle in the late S or in G_2 phase but not inhibiting microtubular assembly (O'Dwyer *et al.*, N. Engl. J. Med., *312:* 692, 1985).

Etoposide was tested clinically in Europe; the first published report was by Nis I. Nissen of the Finsen Institute of Copenhagen (Cancer Chemother. Rep., *56:* 769, 1972). Antitumor responses were observed in lymphomas and shortly thereafter in testicular cancer and small cell cancer of the lung. Etoposide was found to be synergistic with cisplatin and alkylating agents, leading to exploration of chemotherapeutic combinations (N. Engl. J. Med., *312:* 692, 1985).

Pictured are Drs. Hartwell (*left*), Stähelin (*center*), and Nissen (*right*). The *Podophyllum emodi* plant is shown below, with the chemical structures of podophyllotoxin and etoposide.

We are indebted to Drs. Renzo Canetta, Max Taeschler, Nis Nissen, P. J. O'Dwyer, and J. L. Hartwell for information and illustrations.

M. B. S.