

# Heart drugs show promise for fighting colon cancer

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The leaves of the oriental foxglove plant contain digitoxin, a drug used to treat heart disease. It is in a family of medications that now show promise for fighting colon cancer. Credit: Wikimedia Commons

Scientists in Sweden are reporting for the first time that a group of drugs used to treat heart failure shows promise for fighting colon cancer. The study is in ACS' *Journal of Natural Products*. Colon cancer is the third most common cancer in the United States, with more than 150,000 cases diagnosed in the U.S. each year.

Jenny Felth, Joachim Gullbo, and colleagues note that cardiac glycosides are a family of naturally-derived drugs used to treat [congestive heart failure](#) and abnormal heart rhythms. Scientists have suspected for some time, based on previous research, that these heart drugs may have

promise for fighting many different types of cancer. Despite this, knowledge on effects in [colon cancer](#) or combination effects with other anti-cancer drugs is lacking. But scientists know little about their potential anticancer effects and have not tested these substances against colon cancer.

As part of a larger study to screen and identify natural substances with activity against colon cancer, the scientists picked several cardiac glycosides for further study. They tested five of these heart drugs against laboratory cultures of human colon cancer cells and found that they were all effective, to varying degrees, at killing the [cancer cells](#). The sensitivity, however, was rather low when compared to that of other cancer cell types reported previously. Several of the drugs also showed increased anticancer activity when combined with certain drugs used for standard chemotherapy.

The findings suggest that these heart drugs may affect colon cancer outcome when used alone or in combination with conventional chemotherapy drugs, they say.

**More information:** "Cytotoxic Effects of Cardiac Glycosides in Colon Cancer Cells, Alone and in Combination with Standard Chemotherapeutic Drugs", *Journal of Natural Products*, [pubs.acs.org/stoken/presspac/p ... ll/10.1021/np900210m](https://pubs.acs.org/stoken/presspac/p...ll/10.1021/np900210m)

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