

Manufactured "waste management enzyme" induces apoptosis in chemotherapy-resistant cancers.

Printed from <https://www.cancerquest.org/newsroom/2011/03/manufactured-waste-management-enzyme-induces-apoptosis-chemotherapy-resistant> on 02/16/2026



Many anti-cancer therapies work by using the body's own pathways to trigger programmed cell death (apoptosis). Many cancers, however, become resistant to anti-cancer drugs by modifying downstream events. Researchers of an article presented in *Cancer Gene Therapy*, however, have created a genetically engineered "waste management enzyme" that triggers apoptosis via a mechanism independent of the normal signaling pathway. This enzyme, a modified version of DNase1, was shown to induce apoptosis in cancer cells resistant to other anti-cancer drugs. The authors suggest that the modified enzyme might be useful in treating drug-resistant cancers.

Source

<http://www.nature.com/cgt/journal/vaop/ncurrent/full/cgt201084a.html>

Learn More

[Learn More](#)