

# 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 06/06/2026



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.

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