

Boosting sarcoma cell death

October 5 2017, by Leigh Macmillan

Ewing sarcomas – rare, aggressive childhood cancers – are derived from mesenchymal cells in bone and soft tissues, and children with metastatic disease have poor survival.

In a search for new therapeutic options for Ewing sarcoma, Dai Chung, M.D., and colleagues tested a compound previously identified at Vanderbilt, ML327, that induces the expression of the [cell adhesion protein](#) E-cadherin. E-cadherin, a hallmark of [epithelial cells](#), is often lost as cancer cells become invasive. Its re-expression in epithelial cancers blocks cell invasiveness.

Now, the investigators have demonstrated in Ewing sarcoma cells that ML327 increases E-cadherin and alters the expression of other proteins, consistent with a mesenchymal-to-epithelial transition in the cells. ML327 also increased cell death, and had additive effects with a cell death-inducing ligand called TRAIL that has been tested for Ewing sarcoma.

The findings, reported in the Sept. 16 issue of *Biochemical and Biophysical Research Communications*, support further study of ML327, both alone and in combination with TRAIL-based strategies, in the treatment of sarcomas.

More information: Eric J. Rellinger et al. ML327 induces apoptosis and sensitizes Ewing sarcoma cells to TNF-related apoptosis-inducing ligand, *Biochemical and Biophysical Research Communications* (2017). [DOI: 10.1016/j.bbrc.2017.07.050](https://doi.org/10.1016/j.bbrc.2017.07.050)

Provided by Vanderbilt University

Citation: Boosting sarcoma cell death (2017, October 5) retrieved 4 May 2023 from <https://medicalxpress.com/news/2017-10-boosting-sarcoma-cell-death.html>

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.