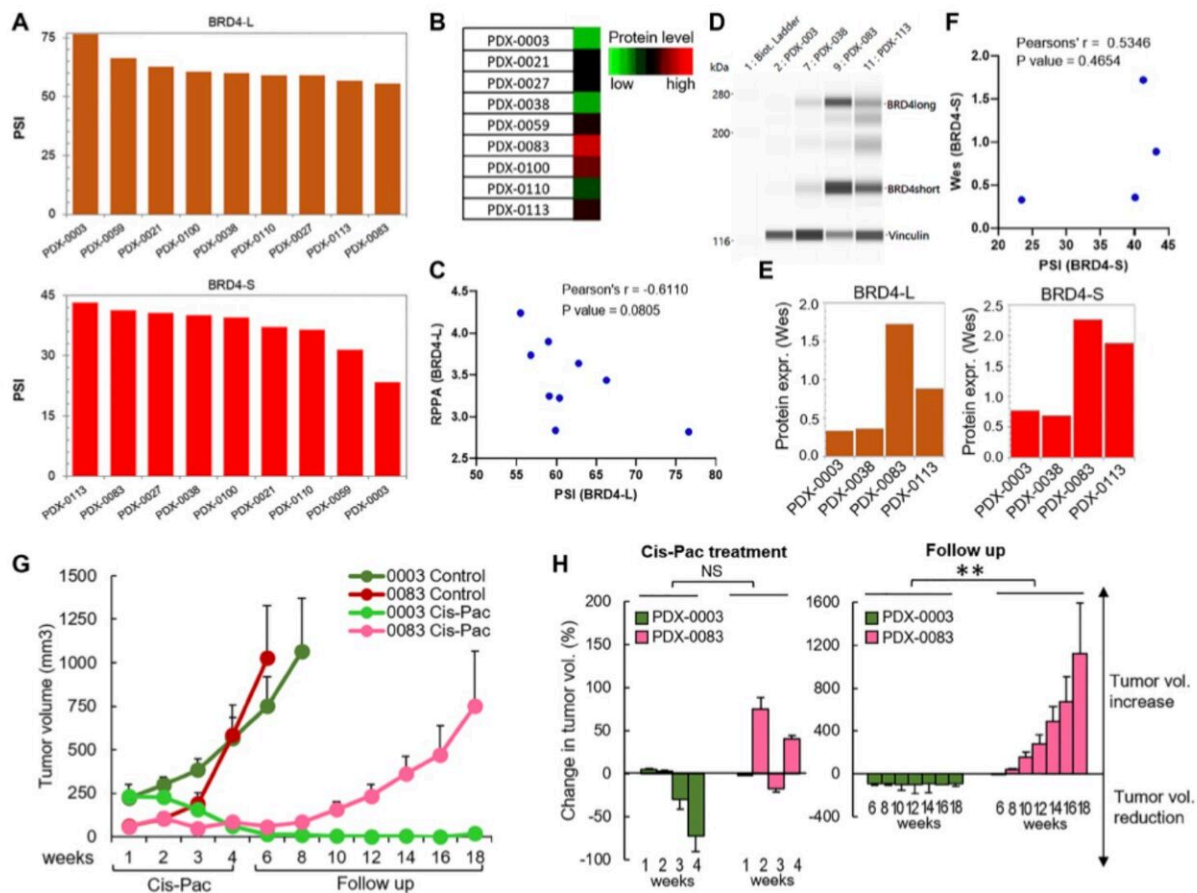


Increased BRD4-L and BRD4-S promotes chemotherapy resistance in ovarian carcinoma: Study

September 13 2023



Patient-derived xenografts with high expression of BRD4-L and BRD4-S are resistant to cisplatin/paclitaxel chemotherapy. Credit: *Genes & Cancer* (2023). DOI: 10.18632/genesandcancer.233

A new [research paper](#) titled "Increased expression of BRD4 isoforms long (BRD4-L) and short (BRD4-S) promotes chemotherapy resistance in high-grade serous ovarian carcinoma" has been published in *Genes & Cancer*.

Chemoresistance in ovarian carcinoma is a puzzling issue that urges understanding of strategies used by [cancer cells](#) to survive DNA damage and to escape cell death. Expanding efforts to understand mechanisms driving chemoresistance and to develop alternative therapies targeting chemoresistant tumors is critical. Amplification of BRD4 is frequently associated with chemoresistant ovarian carcinoma, but little is known about the biological effects of the overexpression of BRD4 isoforms in this malignancy.

In this new study, researchers Ana Luiza Drumond-Bock, Luyao Wang, Lin Wang, Magdalena Cybula, Maria Rostworowska, Michael Kinter, and Magdalena Bieniasz from Oklahoma Medical Research Foundation and Cytovance Biologics described the consequences of BRD4-L and BRD4-S overexpression in ovarian carcinoma shedding a light on a complex regulation of BRD4 isoforms.

They demonstrated that the BRD4-L transcript expression is required to generate both isoforms, BRD4-L and BRD4-S. The researchers showed that the BRD4-S mRNA expression positively correlated with BRD4-S protein levels, while BRD4-L isoform showed negative correlation between mRNA and protein levels.

"Moreover, we demonstrated that an overexpression of BRD4 isoforms is associated with chemoresistance in [ovarian cancer](#)," the researchers explain.

More information: Drumond-Bock Ana Luiza et al, Increased expression of BRD4 isoforms long (BRD4-L) and short (BRD4-S)

promotes chemotherapy resistance in high-grade serous ovarian carcinoma, *Genes & Cancer* (2023). [DOI: 10.18632/genesandcancer.233](https://doi.org/10.18632/genesandcancer.233)

Provided by Impact Journals LLC

Citation: Increased BRD4-L and BRD4-S promotes chemotherapy resistance in ovarian carcinoma: Study (2023, September 13) retrieved 13 May 2024 from <https://medicalxpress.com/news/2023-09-brd4-l-brd4-s-chemotherapy-resistance-ovarian.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.