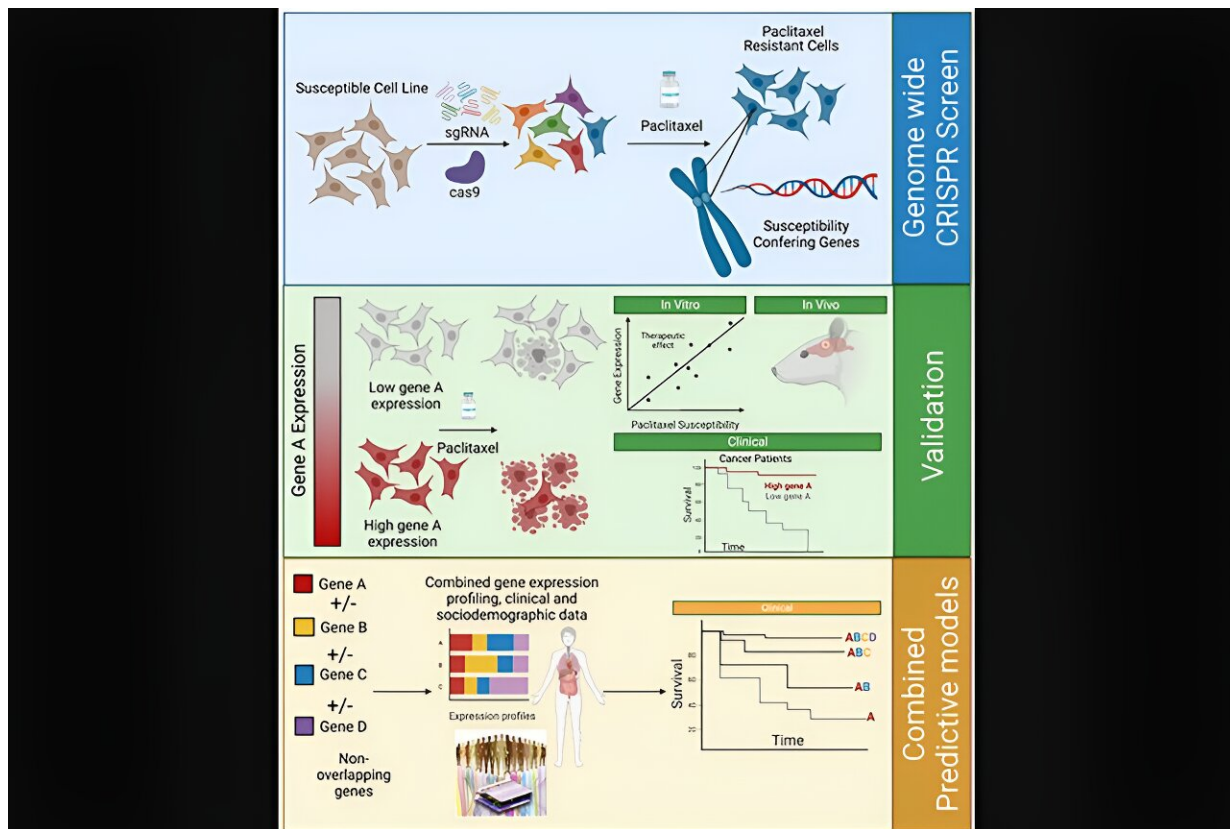


# Combining causal and correlative approaches to discover response biomarkers to paclitaxel

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From genome-wide CRISPR screen to the creation of combined predicting models. Credit: *Oncotarget* (2024). DOI: 10.18632/oncotarget.28549

A new research perspective titled "Combining causal and correlative approaches to discover biomarkers of response to paclitaxel" has been

[published](#) in *Oncotarget*.

Researchers Alberto Moscona-Nissan, Karl J. Habashy, Victor A. Arrieta, Adam M. Sonabend, and Crismita Dmello from Universidad Panamericana School of Medicine, Northwestern University and Universidad Nacional Autónoma de México recently discovered a putative paclitaxel response predictive biomarker for [glioblastoma](#) and breast cancer using the whole genome CRISPR knockout screen. The biomarker candidate was validated in two independent [breast cancer](#) patient cohorts that received taxane treatment.

"To further evaluate the potential application of this [biomarker](#) in the clinic for patients with glioblastoma, a prospective validation in cohorts of patients with glioblastoma is essential and will be performed as part of our ongoing phase II clinical trial," the researchers write.

The validation of novel biomarkers of susceptibility to therapy is critical to elucidate the efficacy signal of therapeutic agents. This is especially important in the context of glioblastoma, where therapeutic benefit is variable and unpredictable, leading to negative trials, yet the outcome of subset of patients has outperformed expectations.

"Precision and personalized medicine can lead to a transition from a stochastic treatment response into predictable scenarios. Further identification of predictive biomarkers, validation, and study of combinations as predictive models is critical to generate a greater impact that can be translated to the bedside of patients," the researchers conclude.

**More information:** Alberto Moscona-Nissan et al, Combining causal and correlative approaches to discover biomarkers of response to paclitaxel, *Oncotarget* (2024). [DOI: 10.18632/oncotarget.28549](https://doi.org/10.18632/oncotarget.28549)

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