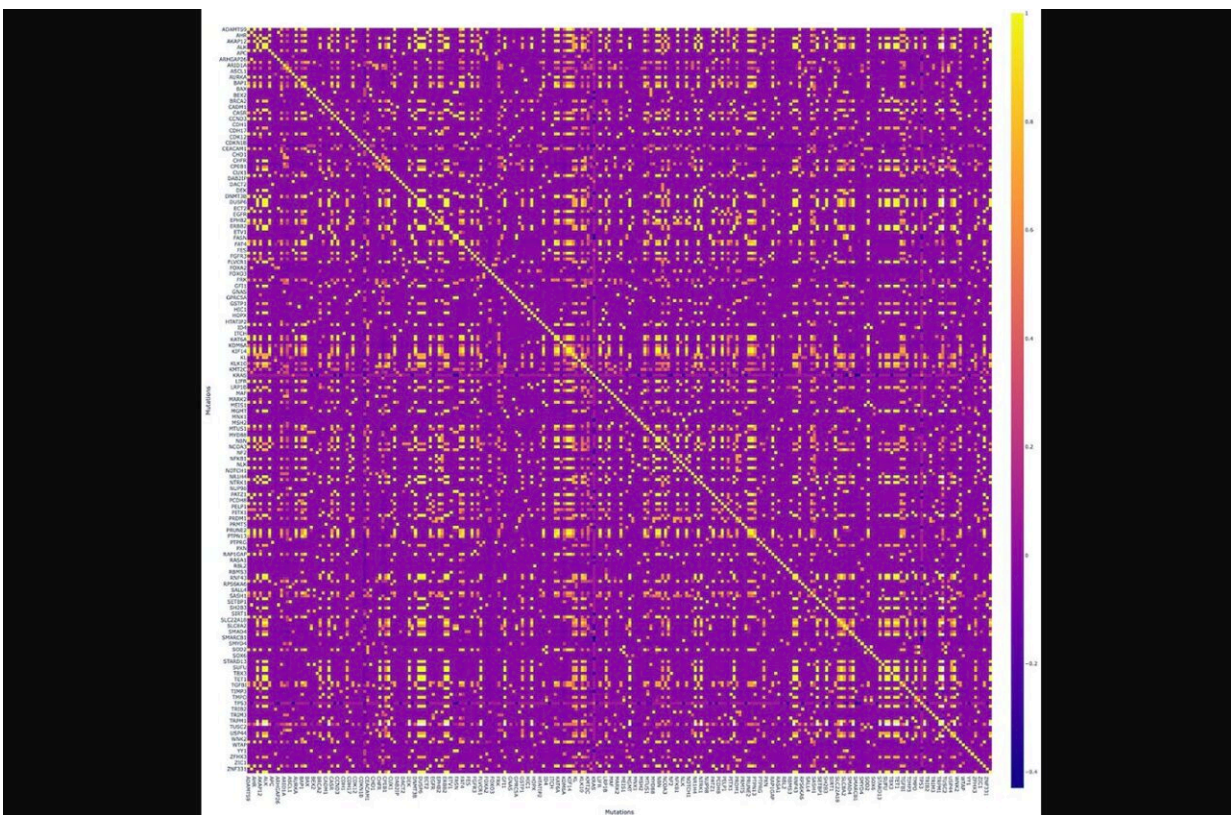


Genetic and therapeutic landscapes in cohort of pancreatic adenocarcinomas using NGS and machine learning

February 14 2024



Correlation matrix with numerous significant positive correlations. Credit: *Oncotarget* (2024). DOI: 10.18632/oncotarget.28512

A new research paper titled "Genetic and therapeutic landscapes in

cohort of pancreatic adenocarcinomas: next-generation sequencing and machine learning for full tumor exome analysis" has been [published](#) in *Oncotarget*.

About 7% of all cancer deaths are caused by [pancreatic cancer](#) (PCa). PCa is known for its lowest survival rates among all oncological diseases and heterogenic molecular profile. Enormous amount of genetic changes, including [somatic mutations](#), exceeds the limits of routine clinical genetic laboratory tests and further stagnates the development of personalized treatments.

In this new study, researchers aimed to build a mutational landscape of PCa in the Russian population based on full exome [next-generation sequencing](#) (NGS) of the limited group of patients.

"Applying a machine learning model on full exome individual data, we received personalized recommendations for targeted treatment options for each clinical case and summarized them in the unique therapeutic landscape," the researchers explain.

More information: P.A. Shatalov et al, Genetic and therapeutic landscapes in cohort of pancreatic adenocarcinomas: next-generation sequencing and machine learning for full tumor exome analysis, *Oncotarget* (2024). [DOI: 10.18632/oncotarget.28512](https://doi.org/10.18632/oncotarget.28512)

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