Gene sequencing accelerates development of climate change fighting, diseaseresistant cabernet grapes

A new sequencing technology, combined with a new computer algorithm that can yield detailed information about complex genomes of various organisms, has been used to produce a high-quality draft genome sequence of cabernet sauvignon, the world's most popular red wine grape variety, reports a UC Davis genomics expert.

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"The new process provides rapid access to genetic information ... enabling us to identify genetic markers to use in breeding new vines with improved traits," said [lead researcher Dario Cantu].

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"The new genomic information ... will accelerate the development of new disease-resistant wine grape varieties that produce high-quality, flavorful grapes and are better suited to environmental changes," Cantu said.

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Warmer temperatures attributed to climate change are already being recorded in many prime grapegrowing regions of the world. And in California, where the value of grape crops varies widely and is heavily influenced by local climate, it is especially important that new varieties be able thrive despite warming temperatures.

"In a worsening climate, drought and heat stress will be particularly relevant for high-quality viticultural areas such as Napa and Sonoma," Cantu said.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis. Read full, original post: Genomics Breakthrough Paves Way for Climate-Tolerant Wine Grape Varieties