

Low-allergenic wines could stifle sniffles and sneezes in millions of wine drinkers

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Scientists have identified a mysterious culprit that threatens headaches, stuffy noses, skin rash and other allergy symptoms when more than 500 million people worldwide drink wine. The discovery could help winemakers in developing the first low allergenic vintages — reds and whites with less potential to trigger allergy symptoms, they say. The new study appears in ACS' monthly *Journal of Proteome Research*.

Giuseppe Palmisano and colleagues note growing concern about the potential of certain ingredients in red and white to cause allergy-like symptoms that range from stuffed up noses to headaches to difficulty breathing. So-called [wine](#) allergies occur in an estimated 8 percent of people worldwide.

Only 1 percent of those involve sulfites, sulfur-containing substances that winemakers add to wine to prevent spoilage and also occur naturally. But the wine components that trigger allergies in the remaining 7 percent are unclear. Studies suggest that glycoproteins — proteins coated with sugars produced naturally as grapes ferment — may be a culprit. However, scientists knew little about the structure and function of these substances in wine.

Their analysis of Italian Chardonnay uncovered 28 glycoproteins, some identified for the first time. The scientists found that many of the grape glycoproteins had structures similar to known allergens, including proteins that trigger allergic reactions to ragweed and latex. The discovery opens to door to development of wine-making processes that

minimize formation of the culprit glycoproteins and offer consumers low-allergenic wines.

More information: "Glycoproteomic profile in wine: a 'sweet' molecular renaissance", *Journal of Proteome Research*.

Provided by American Chemical Society

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