

The Oregonian

Molecule doesn't tell red wine's whole story

Tuesday, July 31, 2007

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Last week we learned about resveratrol, an antioxidant found in berries, peanuts and grapes as well as wine -- particularly Oregon pinot noir. Scientific studies have found this tiny molecule to be something of a panacea, enabling the body to fight cancer, viruses, inflammation, the effects of aging and other health risks.

It's widely believed resveratrol is responsible for the "French paradox," or the low incidence of heart disease in France, where red wine is an important part of a diet that's also high in saturated fats.

One Oregon winery, Willamette Valley Vineyards, is so sold on the health benefits of resveratrol that it sought, fought for and finally won federal permission to print the resveratrol content of its wines on its back labels.

But how good for your health, really, is that glass of Oregon pinot noir?

Studies rely on "monstrous amounts"

Unfortunately, the medical research that has stirred up the most excitement about resveratrol offers little promise to devoted drinkers.

Most notably, a study published last November found that overweight mice treated with resveratrol enjoyed healthier livers, significantly decreased incidence of diabetes and improved motor function in contrast with overweight mice that did not receive resveratrol.

David Sinclair, a molecular biologist with Harvard Medical School, conducted the study in conjunction with the National Institute on Aging (NIA) and other co-authors. Now, as co-founder of the company Sirtis Pharmaceuticals, Sinclair is preparing to test a new resveratrol-based drug for the treatment of diabetes and a rare form of dementia known as MELAS syndrome; he's hoping the medication will be ready to market by 2012.

But before you begin guzzling pinot noir (or purchase cheap resveratrol supplements from your local nutrition store) to cure your diabetes, Sinclair cautions, "You would need to drink over 1,000 bottles of red wine a day to get the benefits we found." His lab-perfected proprietary formula, Sinclair explains, delivers unprecedented levels of ultra-pure resveratrol directly to the bloodstream. A glass of wine just doesn't do that.

Leroy Creasy, Cornell professor emeritus of horticulture who has been studying resveratrol for more than a decade, agrees Sinclair's work is of little use to wine drinkers. "They are feeding synthetic resveratrol to animals in monstrous amounts," Creasy says of Sinclair and similar resveratrol researchers.

Drink to your health?

Now semi-retired, Creasy continues to experiment with ways to increase resveratrol levels in grapes and wines. He and his wife put his research to use five years ago when they both began to suffer the effects of arthritis. After reading Japanese studies that suggested resveratrol could be an arthritis fighter, Creasy made wine from a super-high-resveratrol crop of grapes he had developed in his own vineyard.

"We drank that wine for almost a year," Creasy recalls. "After six months, we didn't have any more arthritis symptoms." Admittedly, this wasn't a formal scientific analysis. Still, Creasy believes, "You can make wine that's high enough in resveratrol to have significant medical value."

Harvard's Sinclair doesn't disagree. Sinclair says he drinks more red wine than he used to, now that he's aware of its healthful qualities. "The assumption that other people are making is that the only good thing in red wine is resveratrol," he says. "I think it's important to note that red wine is a very complex solution. I'm not studying red wine. I'm studying a single molecule."

Indeed, recent studies have shown red wine contains other components -- such as glucose-based compounds called saponins -- that might be just as beneficial to our health as resveratrol.

If you want resveratrol,

here's what to look for For now, we wine drinkers can gloat that our favorite beverage also appears to make our bodies hum. And it's an added bonus for Oregonians to know we just might be getting additional health benefits from our wines.

Unfortunately, Willamette Valley Vineyards aside, you won't see resveratrol levels published on most wine labels. But Creasy and Willamette Valley Vineyards president Jim Bernau say you can deduce which wines might contain the most resveratrol by doing a little research of your own. Here are some factors that point to a higher-resveratrol wine:

Because they're macerated with their skins, red wines are much higher in resveratrol than whites.

The wine should be a pinot noir from a cool, moist climate such as Oregon's Willamette Valley.

The harvest season should have been relatively cool and damp, with the grapes threatened by rot. Willamette Valley Vineyards reported a record level of resveratrol in its 2004 Whole Cluster Fermented Pinot Noir, made from grapes harvested after unseasonable rainfalls in August and September of 2004.

Note that mass producers of boxed wines and other supermarket standbys employ processes that inadvertently remove resveratrol from wine. (Fortunately, these types of wines are not produced in Oregon.)

A wine made using whole-cluster fermentation may have higher resveratrol levels due to the resveratrol present in grape stems.

Contrary to rumor, Creasy has found no drop in resveratrol levels in wines that have aged or been exposed to oxygen. So you can enjoy that bottle of pinot over a couple of days' time, or else seek out past vintages, such as 2004.

All that said, I recommend simply drinking whichever pinot noirs you like best. Wine's most therapeutic function may simply be its ability to make us happy.

Katherine Cole: 1320 S.W. Broadway, Portland, OR 97201