

## 'News' of Chardonnay and Gouais Blanc?

17 Dec 2009 by Jos Vouillamoz

*Botanist José Vouillamoz, pictured here, a native of French-speaking Switzerland who spent some time with Carole Meredith at Davis, is one of the world's best-informed experts on vine identification and parentage through his studies of DNA analysis. Julia and I are delighted to be working with José on our new book about grape varieties. Here he comments on the recent stories about Gouais Blanc and Chardonnay.*

It was rather surprising to say the least to see [decanter.com's story](#) about the 'news' that Gouais Blanc (pictured below, photo courtesy of JV) is the mother of Chardonnay. Virtually all of this has been known since 1999.

The first surprise was to see that the authors of the paper cited are all new to grape genetics. The second surprise was that no one from INRA Montpellier and UC Davis, the authors of the 1999 paper about Pinot x Gouais, was involved in this study.

The only real 'news' added by this paper is the determination of which of Pinot or Gouais Blanc is the mother in each cross. Gouais Blanc turns out to be the mother of Aligoté, Auxerrois, Bachet, Chardonnay, Franc Noir, Gamay Noir, Melon, Romorantin and Sacy, while Pinot is the mother of Aubin Vert, Knipperlé and Roublot. We already knew the parentage; just not which was the mother.

Using maternally inherited chloroplast DNA markers, this is easy to do for any parentage. It has already been done for Cabernet Sauvignon, for example - although this is not mentioned by the authors. It might indeed be interesting to know the mother of a given cross, because grape varieties might inherit rather more of genetic traits from the mother. However, for grapes we still have no idea which traits are exclusively maternally inherited. The authors simply say that maternal inheritance is 'potentially determining important characteristics of the offspring'. This is true for human beings as well: we all inherit our mitochondrias (organelles having their own DNA, found within each cell) from our mother, but many people resemble their father more...