# Tomatoes and Grapes: berry fruits with a (bright) biotech future?

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**Abstract (250 words)**

Tomatoes and Grapes are berries that are genetically related and therefore at least partially their developmental pathways leading to a fleshy fruit should share some of the components. In a sense knowledge obtained from the model plant tomato could be useful for grape and conversely the more amenable tomato can be used to test some hypothesis that would be difficult to obtain in grape. Research in my lab and other labs have led to a better understanding of the molecular genetics mechanisms underlying fruit development and ripening in tomato and more specifically those related to metabolite accumulation that may lead to changes in fruit nutritional and flavor composition. This research has involved the use of genetic variability in natural population, but also biparental population and genetically engineered lines that are easy to develop in tomato tomato but not in grape. NGTs also can be easily implemented in tomato to not only speed up the gene-to-trait but also develop new tomato varieties. I will present some of this results and challenges including a short update on the current status of European NGT legislation proposal.