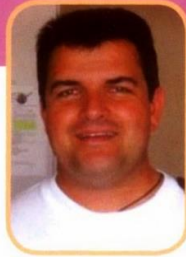


## Third Laureate Applied Research



- **Research Work Title:** Use of Biotechnology for Preserving Rare Fruit Germplasm from Developing Countries.
- **Researcher:** Dr. Pedro Martínez Gómez
- **Nationality:** Spain
- **Field:** Plant Molecular Biology
- **Position:** Scientific Research CSIC, Spain
- **Scientific Affiliation:** Department of Plant Breeding, CEBAS-CSIC, Murcia (Spain)

### Abstract:

The recent sequencing of the complete genome of the peach, together with the availability of new high-throughput genome, transcriptome, proteome and metabolome analysis technologies, offers new possibilities for Prunus breeders in what has been described as the post-genomic era. In this context, new biological challenges and opportunities for the application of these technologies in the development of efficient marker-assisted selection strategies in Prunus breeding include genome resequencing using DNA-Seq, the study of RNA regulation at transcriptional and post-transcriptional levels using tiling microarray and RNA-Seq, protein and metabolite identification and annotation, and standardization of phenotype evaluation. Additional biological opportunities include the high level of synteny among Prunus genomes. Finally, the existence of biases presents another important biological challenge in attaining knowledge from these new high-throughput omics disciplines.



### Biography:

Dr. Pedro Martínez-Gómez has a Degree in Agricultural Sciences (University of Lleida, Spain. 1994), a Master of Science in Plant Breeding (International Centre for Advanced Agronomic Studies, Zaragoza, Spain. 1996) and a PhD in Fruit Genetics and Breeding (University of Murcia, Spain. 1998). During his Pre-doctoral period as PhD student in the Department of Plant Breeding at CEBAS-CSIC of Murcia he worked in apricot breeding for sharka resistance. After this period, he spent three years as Post Graduate Research in the Department of Pomology at the University of California-Davis working on peach and almond breeding and biotechnology. Later Dr. Martínez-Gómez starts a tenure track process of four year at CEBAS-CSIC leading a new laboratory for molecular markers application to fruit breeding. At this moment, he is working as Full Researcher, permanent position obtained in 2005, and in 2008 he ascended into full Scientific Research. He continues his work in Prunus Breeding and Biotechnology