

BIO-286 Cellular Biochemistry and Signaling

Coordinator: Juan Bautista Barroso Albarracín (jbarroso [arroba] ujaen [punto] es)

The Cellular Biochemistry and Signaling research group focuses on the study of antioxidant systems in plants as indicators of performance and productivity of crops in adverse environmental situations. In addition, research conducted in the study of nitric oxide in the fields of plant biotechnology and agri-food have allowed for notable advances in the development of bioformulations that protect olive trees from infections caused by fungal pathogens such as verticillium wilt, and in the characterization of nitrated fatty acids with powerful anti-inflammatory and heart-healthy properties in extra virgin olive oil from Jaén province.

Research lines

- Implications for cardiovascular health processes of nitrated fatty acids / nitrolipids in olive oil
- Antioxidant mechanisms for cellular health in plants: indicators of performance and production
- Biochemical and molecular characterization of enzymatic antioxidants
- NADP characterization - Dehydrogenases
- Characterization of nitric oxide synthases in plants
- Molecular signaling mechanisms in plant-pathogen interaction
- Plant peroxiredoxins
- Olive tree in-vitro crops
- Oxidative stress in olive trees
- Control of olive tree verticillium wilt as a phytosanitary bio-indicator
- Metabolism of nitric oxide

Related services and products

- [Trichoderma strain useful in the treatment and/or prevention of infections caused by fungi belonging to the verticillium genus](#)
- [Trichoderma strain useful in the treatment and/or prevention of infections caused by fungi belonging to the verticillium genus](#)
- [Trichoderma strain useful in the treatment and/or prevention of infections caused by plant pathogen microorganisms](#)
- [Trichoderma strain useful in the treatment and/or prevention of infections caused by plant pathogen microorganisms](#)
- [Trichoderma strain useful in the treatment and/or prevention of infections caused by fungi belonging to the verticillium genus](#)
- [Method for diagnosing verticillium wilt in olive trees](#)

Spanish website: <https://bit.ly/2S8H6XA>