BIO-258 Gene Transcription and Expression in Eukaryotes

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The Bio-258 group is engaged in analyzing the gene transcription and expression in eukaryotes and their research focuses on two major lines: olive groves and transcriptional machinery in eukaryotes.

Our studies focus on '-omic' approaches (genomic, transcriptomic and proteomic) with various objectives, such as:

- To acquire more in-depth knowledge of the olive tree genome.
- To increase the number of sequenced genomes in olive tree varieties throughout the Mediterranean Arc and to create the first database on multi-varietal genetic information on olive trees.
- To establish -through transcriptomic and genomic analysis- the genetic basis for olive tree tolerance to verticillium wilt.
- To identify and characterize new proteins in the transcriptional machinery that coordinate the mRNA synthesis and maturation required for synthesizing proteins and regulating gene expression.
- To embark on new studies aimed at establishing the interconnection between proteins of the transcriptional machinery-molecular signaling pathways-cell cycle, allowing us to establish a functional relationship with tumor processes and take the leap to new biomedical approaches.

Website of the group

The Gene Transcription and Expression in Eukaryotes research group's Web

Research lines

- Olive tree gene research
- Analysis and transcriptional regulation in yeasts
- Analysis of development in olive trees
- Response to stress in olive trees
- Analysis and purification of protein complexes

Related services and products

- Vector designed for destroying latent viruses in the treatment of human immunodeficiency virus type 1 (HIV-1) through gene therapy
- Method for diagnosing verticillium wilt in olive trees
- Detection of gene mutations
- Genomic studies
- Molecular analyses for diagnostic use
- Transcript quantification
- Analysis of protein-protein interactions
- Protein overproduction
- Analysis of gene expression
- Development of markers for genetic improvement

- Specialization courses in Gene Transcription and Expression in Eukaryotes

Spanish website: https://bit.ly/2rMUQff