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Abstract category:
Oral presentation.

Title:
Bio-based technologies for production of bioactive molecules.

Abstract:

Pharmaceutical and food industries are interested in medicinal plant bioactive molecules. Pharmaceutical industry manufactures active pharmaceutical substances containing plant secondary metabolites in their composition. With a view to preserving and sustainably exploiting local biological resources, the main objective of our studies is the ***establishment of optimized biotechnological processes for the ex situ production of this bioactive molecules***.

Two models for standard production of plant bioactive molecules were developed:

1- *Datura sp.* hairy root technologies for tropane alkaloids production;
2- Acclimatized whole plant of oregano (*Origanum glandulosum*) for essential oils production.

Why *ex situ* production?

- Produce biologically active molecules at the lowest cost;
- Produce biomolecules of interest of high quality (pure);
- Ensure production throughout the year;
- Produce with a reproductive chromatographic profile (for essential oils, same composition at each production);
- Preserve the biological diversity of local medicinal plants.

Key words:
Datura sp., essential oils, hairy roots, *Origanum glandulosum*, tropane alkaloids.