

TRAINING SCHOOL ON CRYOPRESERVATION

TRAINERS:

Elena González-Benito (Universidad Politécnica de Madrid, Spain)

Monika Höfer (Julius Kühn-Institut · Institute of Breeding Research on Fruit Crops, Germany)

Terezia Salaj (Institute of Plant Genetics and Biotechnology, Slovakia)

Carolina Sánchez-Romero (Universidad de Malaga, Spain)

DATE: 27 - 30 March 2023

PLACE: Malaga, Spain

ORGANIZER: University of Malaga, Malaga (Spain)

Carolina Sánchez-Romero

E-mail: c.sanchez@uma.es

VENUE: University of Malaga. Campus de Teatinos s/n. 29041 Malaga, Spain



UNIVERSIDAD
DE MÁLAGA

This training school is organized within the framework of the ConservePlants COST Action (CA 18201), with the support of the University of Malaga.

Cryopreservation is the storage of biological material at ultralow temperature (usually that of liquid nitrogen). At this temperature, cellular metabolic processes are stopped and, therefore, cryopreservation allows the safe long-term conservation of plant genetic resources. Cryopreservation is a biotechnological tool, which can constitute a useful complement to germplasm banks, making possible the establishment of safe back-up collections. Furthermore, in non-orthodox seed and vegetatively propagated species, cryopreservation represents the only long-term conservation option.

This training school will introduce fundamental concepts of cryopreservation and provide practical demonstrations of cryopreservation of different organs and tissues. It is open to PhD students, postdoctoral fellows and early career scientists interested in cryopreservation and its application to germplasm *ex situ* conservation. Selected participants will be reimbursed for their travel costs and will receive a partial reimbursement of their daily allowances in the amount of 110 €/day.

APPLICATION: Application will be open from 10 to 20 January 2023 and should be carried out using the form:

<https://docs.google.com/forms/d/e/1FAIpQLScvv->

[wJE9iFK7PW_kF8yvcGanKOotyG4aYvNMsuWs1AVJKLDQ/viewform](https://docs.google.com/forms/d/e/1FAIpQLScvv-wJE9iFK7PW_kF8yvcGanKOotyG4aYvNMsuWs1AVJKLDQ/viewform)

PRELIMINARY AGENDA

Day 1: 27 March 2023

- Welcome and introduction to the workshop
- Lectures: Cryopreservation: Basic aspects and applications
 - Basic principles of cryopreservation
 - Cryopreservation techniques
- Practical demonstration: Preparation of solutions, culture media, cryoware and accessories

Day 2: 28 March 2023

- Lectures: Cryopreservation of seeds
 - Explant structure and characteristics
 - Cryopreservation techniques used
 - Examples of application
- Practical demonstration: Cryopreservation of seeds

Day 3: 29 March 2023

- Lectures: Cryopreservation of shoot tips
 - Explant structure and characteristics
 - Cryopreservation techniques used
 - Examples of application
- Practical demonstration: Cryopreservation of shoot tips

Day 4: 30 March 2023

- Lectures: Cryopreservation of other tissues (spores, pollen, embryogenic tissues)
 - Explant structure and characteristics
 - Cryopreservation techniques used
 - Examples of application
- Practical demonstration: Cryopreservation of embryogenic cultures