





COST is supported by the EU Framework Programme Horizon 2020

3rd EPI-CATCH CONFERENCE

EPIGENETIC MECHANISMS OF CROP ADAPTATION TO CLIMATE CHANGE

30 MAY - 1 JUNE 2023

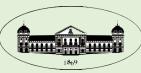
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CONFERENCE VENUE: Bulgarian Academy of Sciences "Prof. Marin Drinov" Hall 15 Noemvri Str., No1 Sofia, 1040, BULGARIA







EPI-CATCH is a COST action with the aim of defining, developing generating and sharing new breaking knowledge and methodologies for the investigation of epigenetic mechanisms underlying plant adaptation to environmental stresses driven by climate change. Our goal is to create a pan-European framework for networking in this under-investigated research field of plant genetics. The 3rd EPI-CATCH Conference is an extraordinary occasion for researchers to disseminate, discuss, connect and update on the latest research in plant epigenetics. The conference will host sessions dealing with:

- 1) epigenetic responses to environmental stresses;
- 2) epigenetic mechanisms driving stress memory, transgenerational effects, adaptation responses;
- 3) methodological approaches for the study of epigenetic diversity and stress responses.

Management Committee meeting will take place at the end of the conference to coordinate the activities over the 3rd year of the Action and resume other events (training schools, workshops, STSMs) organised by EPI-CATCH.

The conference will be held in a hybrid format, combining physical presence and online/remote participation.

EPI-CATCH Working Groups:

- WG1 Plant stress epigenetic responses
- WG2 New frontiers and concepts
- WG3 Methodologies and workflows
- WG4 Dissemination and communication



FEDERICO MARTINELLI - University of Florence, Italy VALYA VASSILEVA - IPPG, Bulgarian Academy of Sciences, Bulgaria MICHAL LIEBERMAN-LAZAROVICH - Volcani Center, Israel STEPHANE MAURY - University of Orléans, France GLORIA PINTO - University of Aveiro, Portugal NAAMA SEGAL - National Center for Mariculture Research, Israel ELENI TANI - Agricultural University of Athens, Greece PILAR TESTILLIANO - CIB Margarita Salas-CSIC, Spain SOTIRIOS FRAGKOSTEFANAKIS - Goethe University Frankfurt, Germany VELIMIR MLADENOV - University of Novi Sad, Serbia



3	PROGRAMME rd EPI-CATCH conference	Wednesda	y, 31 May 2023	Thursday, 1	L June 2023
Tuesday, 30		09:00-17:30	WG2 SESSION. New concepts and frontiers in epigenetics	09:00-13:00	WG3 SESSION. Advances and approaches in plant epigenetics for crop improvement
13:00-14:00	REGISTRATION OPENING of the CONFERENCE	09:00-09:30	Keynote: Michele Morgante, University of Udine, Italy, Plant pan genomes, transposable elements and epigenetic variation	09:00-09:30	Keynote: Célia Baroux, University of Zurich, Switzerland, Chromatin reprogramming at the somatic-to-reproductive transition - lessons from
14:00-14:10	Welcome of EPI-CATCH Chair	09:30-10:00	Keynote: Daniel Schubert, Freie Universität Berlin, Germany, Chromatin signatures of stress priming and memory in plants and algae	09:30-9:50	<i>in situ</i> quantitative imaging Carl Gunnar, NIBIO, Norway, Epigenetic memory in response to temperature conditions
14:10-14:50	KEYNOTE CONFERENCE SPEAKER Heribert Hirt, KAUST, SAUDI ARABIA, Microbiome-induced epigenetic mechanism of thermotolerance in plants	10:00-10:20	Fererico Martinelli, University of Florence, Italy , Investigating mechanisms of drought tolerance in chickpea		during asexual and sexual propagation Sotirios Fragkostefanakis, Goethe University Frankfurt am Main, Germany, Transcriptional
14:50-18:40	WG1 SESSION. Plant epigenetic responses to environmental stresses	10:20-10:40	Miroslav Baránek, Mendel University in Brno, Czech Republic, The influence of different stress conditions on DNA methylation and mobilome of grapevine	09:50-10:10	regulation of heat stress response and thermotolerance in tomato
14:50-15:20	Keynote:IsabelBaurle,UniversityofPostdam,Germany,Chromatin-based	10:40-11:10	Coffee break and poster viewing	10:10-11:00	To be selected among submitted abstracts
	mechanisms of environmental stress memory Jake Harris, University of Cambridge, UK, Chromatin features of pathogen priming in	11:10-11:30	Melissa Mageroy, Institute for Bioeconomy Res, Norway, Molecular underpinnings of methyl	11:00-11:30	Coffee break and poster viewing
15:20-15:40 15:40-16:00	Arabidopsis thaliana German Martinez, SLU, Sweeden, Epigenetic dynamics in response to biotic stress	11:30-11:50	jasmonate induced resistance in Norway spruce Norbert Hidvégi, University of Debrecen, Hungary , The <i>XTH</i> gene expression changes in tomato and potato under environmental mechanical	11:30-12:00	Keynote: Philippe Gallusci, University of Bordeaux, France, DNA methylation remodelling in grapevine triggered by nutritional and environmental stresses
16:00-16:20	Conchita Alonso, Estación Biológica de Doñana, CSIC, SPAIN, Plant epigenetics: a contribution to phenotypic variation in changing environment	11:50-12:50	forces (rainfall, wind and touch) To be selected among submitted abstracts	12:00-12:20	Aleš Pečinka, UEB, Czech Academy of Sciences, Czechia, Towards understanding chromosome organization and epigenetic regulation in barley
16:20-16:40	To be selected among submitted abstracts	12:50-14:00	Lunch		Judit Dobránszki, University of Debrecen, Hungary, DNA methylation and mRNA
16:40-17:10	Coffee break and poster viewing Keynote: Martin Crespi, Institute of Plant	14:00-14:30	Keynote: Alma Balestrazzi, University of Pavia, Italy, Boosting the seed repair response: a reliable solution for climate-ready crops	12:20-12:40	
17:10-17:40	Sciences Paris Saclay, France, Long non- coding RNAs in epigenetic regulation triggered by the environment	14:30-14:50	Eirini Kaiserli, University of Glasgow, UK, Transcriptional regulation of Arabidopsis adaptive responses to light and temperature	12:40-13:00	To be selected among submitted abstracts
17:40-18:00	Iris Sammarco, Institute of Botany, Czech Academy of Sciences, Understanding the adaptive potential of natural epigenetic	14:50-15:10	Filippos A. Aravanopoulos, Aristotle University of Thessaloniki, Greece, How fast is perennial plant	13:00-13:30	EPI-CATCH WG meetings (WG1-WG4)
	variation using wild strawberry plants Stéphane Maury, Université d'Orléans,	14.30-13.10	adaptation to environmental stress and what role can epigenetics play?	13:30-13:40	OFFICIAL CLOSING of the CONFERENCE
18:00-18:20	France, Epigenomics in plant populations	15:10-17:30	Flash talks	12.40 14.40	Lunch
18:20-18:40	Flash talks	17:30-20:00	Sightseeing trip/walk	13:40-14:40	Lunch
19:00-20:30	WELCOME COCKTAIL	20:00-23:00	SOCIAL DINNER	14:40-16:30	EPI-CATCH 3 rd Management Committee Meeting