



COST is supported by the EU  
Framework Programme Horizon  
2020

## 3<sup>rd</sup> EPI-CATCH CONFERENCE

EPIGENETIC MECHANISMS OF CROP ADAPTATION  
TO CLIMATE CHANGE

**30 MAY – 1 JUNE 2023**

**SOFIA, BULGARIA**



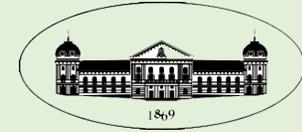
### CONTACT DETAILS

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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 3<sup>rd</sup> 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 3<sup>rd</sup> 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**



**epicatch**

**CA19125**

#### **ORGANISING COMMITTEE**

**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**

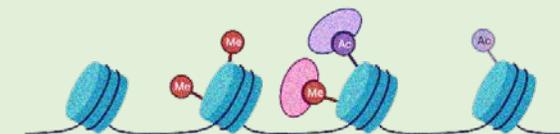
**NAAMA SEGAL - National Center for Mariculture Research, Israel**

**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**



**PROGRAMME**  
**3<sup>rd</sup> EPI-CATCH conference**

<b>Tuesday, 30 May 2023</b>	
<b>13:00-14:00</b>	<b>REGISTRATION</b>
	<b>OPENING of the CONFERENCE</b>
<b>14:00-14:10</b>	<b>Welcome of EPI-CATCH Chair</b>
<b>14:10-14:50</b>	<b>KEYNOTE CONFERENCE SPEAKER</b> <b>Heribert Hirt, KAUST, SAUDI ARABIA,</b> Microbiome-induced epigenetic mechanism of thermotolerance in plants
<b>14:50-18:30</b>	<b>Plant epigenetic responses to environmental stresses</b>
<b>14:50-15:20</b>	<b>Keynote: Isabel Baurle, University of Postdam, Germany,</b> Chromatin-based mechanisms of environmental stress memory
<b>15:20-15:40</b>	<b>Jake Harris, University of Cambridge, UK,</b> Chromatin features of pathogen priming in <i>Arabidopsis thaliana</i>
<b>15:40-16:00</b>	<b>German Martinez, SLU, Sweeden,</b> Epigenetic dynamics in response to biotic stress
<b>16:00-16:20</b>	<b>Conchita Alonso, Estación Biológica de Doñana, CSIC, SPAIN,</b> Plant epigenetics: a contribution to phenotypic variation in changing environment
<b>16:20-16:40</b>	<i>To be selected among submitted abstracts</i>
<b>16:40-17:10</b>	<i>Coffee break and poster viewing</i>
<b>17:10-17:40</b>	<b>Keynote: Martin Crespi, Institute of Plant Sciences Paris Saclay, France,</b> Long non-coding RNAs in epigenetic regulation triggered by the environment
<b>17:40-18:00</b>	<b>Iris Sammarco, Institute of Botany, Czech Academy of Sciences, Czech Republic</b> Understanding the adaptive potential of natural epigenetic variation using wild strawberry plants
<b>18:00-18:20</b>	<b>Stéphane Maury, Université d'Orléans, France,</b> Epigenomics in plant populations
<b>18:20-18:40</b>	Flash talks

<b>Wednesday, 31 May 2023</b>	
<b>09:00-12:50</b>	<b>New concepts and frontiers in epigenetics</b>
<b>09:00-09:30</b>	<b>Michele Morgante, University of Udine, Italy,</b> Plant pan genomes, transposable elements and epigenetic variation
<b>09:30-10:00</b>	<b>Daniel Schubert, Freie Universität Berlin, Germany,</b> Chromatin signatures of stress priming and memory in plants and algae
<b>10:00-10:20</b>	<b>Ferericco Martinelli, University of Florence, Italy,</b> Investigating mechanisms of drought tolerance in chickpea
<b>10:20-10:40</b>	<b>Miroslav Baránek, Mendel University in Brno, Czech Republic,</b> The influence of different stress conditions on DNA methylation and mobilome of grapevine
<b>10:40-11:10</b>	<i>Coffee break and poster viewing</i>
<b>11:10-11:30</b>	<b>Melissa Mageroy, Institute for Bioeconomy Res, Norway,</b> Molecular underpinnings of methyl jasmonate induced resistance in Norway spruce
<b>11:30-11:50</b>	<b>Norbert Hidvégi, University of Debrecen, Hungary,</b> The <i>XTH</i> gene expression changes in tomato and potato under environmental mechanical forces (rainfall, wind and touch)
<b>11:50-12:30</b>	<i>To be selected among submitted abstracts</i>
<b>12:50-14:00</b>	<i>Lunch</i>
<b>14:00-15:50</b>	<b>Planted Cost Action session</b>
<b>14:00-14:20</b>	<b>Eirini Kaiserli, University of Glasgow, UK,</b> Transcriptional regulation of Arabidopsis adaptive responses to light and temperature
<b>14:20-14:40</b>	<b>Filippos A. Aravanopoulos, Aristotle University of Thessaloniki, Greece,</b> How fast is perennial plant adaptation to environmental stress and what role can epigenetics play?
<b>14:40-15:00</b>	
<b>15:00-16:00</b>	Flash talks
<b>16:00-17:30</b>	<b>EPI-CATCH WG meetings (WG1-WG4)</b>
<b>20:00-23:00</b>	<i>SOCIAL DINNER</i>

<b>Thursday, 1 June 2023</b>	
<b>09:00-13:00</b>	<b>Advances and approaches in plant epigenetics for crop improvement</b>
<b>09:00-09:30</b>	<b>Célia Baroux, University of Zurich, Switzerland,</b> Chromatin reprogramming at the somatic-to-reproductive transition - lessons from <i>in situ</i> quantitative imaging
<b>09:30-10:00</b>	<b>Carl Gunnar, NIBIO, Norway,</b> Epigenetic memory in response to temperature conditions during asexual and sexual propagation
<b>10:00-10:30</b>	<b>Aleš Pečinka, UEB, Czech Academy of Sciences, Czech Republic,</b> Towards understanding chromosome organization and epigenetic regulation in barley
<b>10:30-11:00</b>	<i>To be selected among submitted abstracts</i>
<b>11:00-11:30</b>	<i>Coffee break and poster viewing</i>
<b>11:30-12:00</b>	<b>Philippe Gallusci, University of Bordeaux, France,</b> DNA methylation remodelling in grapevine triggered by nutritional and environmental stresses
<b>12:00-12:20</b>	<b>Sotirios Fragkostefanakis, Goethe University Frankfurt am Main, Germany,</b> Transcriptional regulation of heat stress response and thermotolerance in tomato
<b>12:20-12:40</b>	<b>Judit Dobránszki, University of Debrecen, Hungary,</b> DNA methylation and mRNA transcription background of enhanced seedling growth after seed ultrasonication
<b>12:40-13:00</b>	<i>To be selected among submitted abstracts</i>
<b>13:00-13:10</b>	<b>OFFICIAL CLOSING of the CONFERENCE</b>
<b>13:10-14:30</b>	<i>Lunch</i>
<b>14:30-16:30</b>	<b>EPI-CATCH 3<sup>rd</sup> Management Committee Meeting</b>