

National TC Project Bul5/014 2016-2018

Training Course “Advanced methods for mutation detection in plants”

21-24 November 2017, Sofia, Bulgaria

**Target audience: MS and PhD students, young scientists and post-docs,
expected number 15 participants**

Course program

Tuesday, 21 November

Location: Aula of the biological Faculty, Sofia State University

09.00- Registration of the participants

10. 00 Opening lecture “Farming and food for the future”

**JS (Pat) Heslop-Harrison, Department of Genetics and Genome Biology,
University of Leicester, UK**

Panel “Forward genetic approaches”

Location: Joint Genomic Center /AgroBioInstitute.

11.30. Lecture: prof. JS (Pat) Heslop-Harrison Part 1: The plant genome and its components

12.30-13.30 – Lunch break

13.30- 14.30 prof. JS (Pat) Heslop-Harrison:

Part of practical: Chromosomes, genomes, gene organization and cell division

**14.30-18.30 Practical: Identification of DNA polymorphisms in loci related to
abiotic stress response in barley and wheat genomes**

Responsible person: Dr. Elena Todorovska

19.00 Welcome event

Wednesday, 22 November:

Location: Joint Genomic Center /AgroBioInstitute

Panel “Forward genetic approaches”(continuation)

10.00-11.00 Lecture: prof. JS (Pat) Heslop-Harrison Part 2: Maps and markers: from morphology to molecules, and genes to quantitative traits

11.00-11.30 Coffee break

11.30-12.30 prof. JS (Pat) Heslop-Harrison: Part of practical: From sequence to markers

12.30-14.00 Lunch break

**14.00-17.00 Practical (continuation): Identification of DNA polymorphisms in loci related to abiotic stress response in barley and wheat genomes
responsible person: Dr. Elena Todorovska**

Thursday, 23 November

Location: Institute of Plant Physiology and Genetics, Bulgarian Academy of Sciences

09.30-10.30 Lecture: “Using genetic approaches” prof. JS (Pat) Heslop-Harrison Part 3: Identifying, creating and using variability for crop breeding

10.30-11.00 Coffee break

Panel: “Reverse genetic approaches” Location: Institute of Plant Physiology and Genetics

11.00-12.00 Lecture: prof. JS (Pat) Heslop-Harrison Part 4: From DNA data to the farmers field: superdomestication and reaching the Sustainable Development Goals

12.00-13.00 Lunch break

13.00-18.30 Practical: High Resolution Melting analysis (HRM). Principle and applications

Responsible persons: Dr. Georgi Antov, Dr. Irina Boitcheva

19.00 Closing and farewell

Information about the lectures can be obtained via www.molcyt.com and www.molcyt.org

Supplementing Event on Friday, 24 November:

09.00-15.00 Seminar in Genetics (Poster session)

Organizer: Genetics Section of the Union of Scientists in Bulgaria

Supported by the Union of Scientists in Bulgaria, Institute of Plant Physiology and Genetics (Bulgarian Academy of Sciences), Agrobiointitute (Bulgarian Agricultural Academy) and Joint Genomic Center (Sofia State University).

Location: Lobby of the Genetics Department, Sofia State University. More information on <https://www.uni-sofia.bg>