

**Title:**

PCR based detection of methylation changes

**Target Audience:**

New comers and advanced PCR users of PCR based technologies for methylation changes detection.

**Entrance Qualifications:**

Basic PCR knowledge.

**Description:**

The main objective of the course is to become gain overview and familiar with the use of PCR based technologies for the locus specific methylation changes detection.

Specifically, during theoretical part of the course we will address:

- the pre-PCR sample preparation necessary for the subsequent use of PCR,
- types of the primers used for methylation changes detection
- detection technologies used in combination with PCR for methylation detection
- instrumentation for the experimental set up
- troubleshooting of PCR based methylation detection experiment

Practical part of the course will include:

- design of the PCR assay
- set up of the methylation detection based on one of the PCR technologies (MS-HRM)
- analysis of the results of the experiment

Time table: [theoretical](#) and [practical – hands on](#)

9:00 – 10:30	<a href="#">Introduction to PCR based methylation detection technologies</a>
10:30 – 10:45	Coffee brake
10:45 – 12:00	<a href="#">Hands-on set up of PCR for MS-HRM methylation detection experiment</a>
12:00 – 12:45	Lunch break
12:45 – 14:00	<a href="#">Primer design for methylation detection</a>
14:00 – 15:00	<a href="#">Primer design – practical exercise (computer required)</a>
15:00 – 15:15	Coffee brake
15:15 – 16:00	<a href="#">Analysis of the results of hands on experiment</a>
16:00 – 17:00	<a href="#">Optimization of PCR protocols for methylation detection</a>
17:00 – 17:15	Q&A