

## SIGA COURSE

# Analysis of epigenetic marks in plants using Chromatin Immunoprecipitation (ChIP)

Department of Biosciences, University of Milan

12-14 June 2023

## PROGRAMME

### Monday 12 June 2023

**Registration: 10:00-10:30**

#### Practice

11.00-13.00 Prof. Giorgio Perrella (UNIMI); Alessio Baldini (UNIMI), Dr. Irene Luzzi (UNIPD)

- **ChIP Protocol:** Fix and washing and grinding material

13.00-14.00 Lunch

#### Practice

14.00-18.30 Prof. Giorgio Perrella (UNIMI); Alessio Baldini (UNIMI), Dr. Irene Luzzi (UNIPD)

- **ChIP Protocol:** nuclei isolation and chromatin extraction
- **ChIP Protocol:** Sonication and Immunoprecipitation ON

### Tuesday 13 June 2023

#### Practice

9-11 Prof. Giorgio Perrella (UNIMI); Alessio Baldini (UNIMI), Dr. Irene Luzzi (UNIPD)

**ChIP Protocol:** Washing and beads incubation

#### Theory

11-12.30 Prof. Serena Varotto (UNIPD)

- ChIP methodology for studying epigenome dynamics

12.30-14.00 Lunch

#### Practice

14-18 Prof. Giorgio Perrella (UNIMI); Alessio Baldini (UNIMI), Prof. Serena Varotto (UNIPD), Dr. Irene Luzzi (UNIPD)

- **ChIP Protocol:** Washes and ON elution
- **What's next after ChIP?** Control PCR on samples

**Wednesday 14 June 2023**

**Practice**

9-10.30 Prof. Giorgio Perrella (UNIMI); Alessio Baldini (UNIMI), Dr. Irene Luzzi (UNIPD)

- **ChIP Protocol:** Proteinase K treatment, DNA clean up and precipitation
- **What's next after ChIP?** Gel control on PCR samples

**Theory**

10.30-11.30 Prof. Giorgio Perrella (UNIMI)

- **What's next after ChIP?** Data analysis

**Practice**

11.30-12.30 Prof. Giorgio Perrella (UNIMI); Alessio Baldini (UNIMI), Dr. Irene Luzzi (UNIPD)

- **ChIP Protocol:** DNA elution

12.30-13.00 Final remarks