



**Summer School SBI**  
***New genomic techniques in plant science***  
 University of Turin  
 Department of Life Sciences and Systems Biology  
 Viale Mattioli 25, 10125  
 Turin - September 24-26, 2024



## Program

### ***Tuesday September 24, 2024***

- 10.30 - 11.00 Registration
- 11.00-12.45 Theory Part 1: Introduction to genome editing (A. Moglia)
- 12.45-14.00 *Lunch*
- 14.00 -15.00 Theory Part 2: Introduction to genome editing (A. Moglia)
- 15.00-17.00 Theory: *In vitro* cultures and regeneration of plants (I. Perrone)
- 17.00-17.30 *Coffee break*
- 17.30-18.30 On-line seminar W. Busch: "Harnessing Plants to Address Climate Change using Genome Editing and Genetic Engineering"

### ***Wednesday September 25, 2024***

- 9.00-10.45 From theory to practice: Design of guide RNAs (A. Moglia)
- 10.45-11.15 *Coffee break*
- 11.15-13.00 From theory to practice: Systems for the delivery of CRISPR-Cas Virus-Induced Genome Editing (A. Moglia)
- 13.00-14.15 *Lunch*
- 14.15-18.15 From theory to practice: Systems for the delivery of CRISPR-Cas

	<i>Group 1 – 10 people</i>	<i>Group 2 – 10 people</i>
14.15-16.15	Rice stable genetic transformation - Part I (V. Brambilla, L. Mineri)	Use of ribonucleoproteins in protoplasts - Part I (I. Perrone, L. Nerva)
16.15-18.15	Use of ribonucleoproteins in protoplasts - Part I (I. Perrone, L. Nerva)	Rice stable genetic transformation - Part I (V. Brambilla, L. Mineri)

- 19.00           Aperitivo @ Società Canottieri Armida – Viale Virgilio 45, Torino



**Thursday September 26, 2024**

From theory to practice: Systems for the *delivery* of CRISPR-Cas (2 groups)

	<i>Group 1 – 10 people</i>	<i>Group 2 – 10 people</i>
8.30-10.00	Rice stable genetic transformation -Part II (V. Brambilla, L. Mineri)	Use of ribonucleoproteins in protoplasts -Part II (I. Perrone, L. Nerva)

10.00-10.30 - *Coffee break*

From theory to practice: Systems for the *delivery* of CRISPR-Cas (2 groups)

	<i>Group 1 – 10 people</i>	<i>Group 2 – 10 people</i>
10.30-12.00	Use of ribonucleoproteins in protoplasts - Part II (I. Perrone, L. Nerva)	Rice stable genetic transformation - Part II (V. Brambilla, L. Mineri)

12.00-13.00 Seminar by C. Lorenzo - “Using multiplex genome editing to steer yield improvements in maize”

13.00-14.15 *Lunch*

14.15-18.00 From theory to practice: Tools for the identification of mutations induced by genome editing

with Sanger approach (C. Comino)

with Next Generation Sequencing (A. Acquadro, C. Comino)

**Endorsed by:**



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