

Introduction to Innovative Tools for Translational Molecular Research

Course Itinerary

| Wednesday June 4, 2025 | |
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| Morning Lectures (CS01) The Need for Personalized Molecular Medicine Moderatore Marco Vinceti | |
| 9:00-9:45 | Massimo Dominici (UniMoRE): Cell and gene therapy: from lab to clinic |
| 9:45-10:30 | Ilenia Mastrolia (UniMoRe): Extracellular vesicles for liquid biopsy in cancer |
| 10:30-10:45 | Coffee Break |
| 10:45-11:30 | Chiara Chiavelli (UniMoRE): CAR-T |
| 11:30-12:15 | Giulia Grisendi (UniMoRE): 3D cultures- Spheroids |
| 12:15-13:00 | Stefano Ratti (UniBO): Whole-body donation: dissecting the key sociological aspects and increasing citizenship awareness |
| 2:30pm-4:30pm | Laboratory Hand-on workshop Profs. Dominici, Chiavelli, Grisendi, Mastrolia |

Laboratory Hands on Workshops

Students will participate in hands-on workshops in the afternoons.

| Thursday June 5, 2025 | |
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| Morning Lectures (CS01) Omics technologies and translational research Moderatore Michele Morgante | |
| 9:00-9:45 | Stefania Bortoluzzi (UniPD): Role of circular RNAs in acute lymphoblastic leukemia, from software tools to functional studies |
| 9:45-10:30 | Silvia Bresolin (UniPD): Characterization of leukemia heterogeneity using a single-cell multiomic approach |
| 10:30-11:15 | Giuseppe Macino (UniRoma): Spatial Transcriptomics interdisciplinary platform for precision medicine |
| 11:15-11:30 | Coffee break |
| 11:30-12:15 | Silvio Bicciato (UniPD): Computational Analysis of Single Cell Spatial Omics Data: Challenges and Opportunities |
| 12:15-13:00 | Giorgia Guaitoli (UniMoRE): Molecular Diagnostics in the Management of Lung Cancer Patients |
| 2:30pm-4:30pm | Laboratory Hands-on workshop Prof. Silvia Bresolin |

| Friday June 6, 2025 | |
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| Pharma Perspectives, AI & Digital Pathology Moderatore Giulio Rastelli | |
| 9:00-9:45 | Giulio Rastelli (UniMoRE): Drug repositioning to identify novel therapeutic approaches |
| 9:45-10:15 | Valentina Serafin (UniMoRE): Advancing patient-specific treatments through the identification of novel drug targets |
| 10:15-11:00 | Sandra Marmioli (UniMoRE): Signaling Molecules in Cancer: Druggable or Undruggable? |
| 11:00-11:15 | Coffee break |
| 11:15-12:00 | Carlo Tacchetti (San Raffaele): Artificial Intelligence in Healthcare: from Cloud to Bedside |
| 12:00-12:45 | Albino Eccher (UniMoRE): New waves in pathology: digitalization and more |
| 12:45-13:15 | Cinzia Del Giovane (UniMoRE): Clinical trial design |
| 2:30pm-4:30pm | Laboratory Hands-on workshop Digital Pathology: Prof. Eccher IHC: Profs. Maraldi, Serafin, Zavatti, Beretti |