

International Winter School

Genome integrity and genome organization in physiology and pathology

December 18-22, 2023

Preliminary program

December 18th Lucchesi Room (CU005) 09.30-10.00 Opening and registration

Nuclear Integrity and chromatin organization

Discussant: Romina Burla, IBPM-CNR Rome

10.00-11.30 **Wenting Zhao**, School of Chemistry, Chemical Engineering and Biotechnology, NTU Singapore (online)

Engineered membrane deformation and guided reorganization of cellular machinery to study the mechanical properties of cells

11.30-13.00 **Fred Bernard**, *Jacques Monod Institute, Paris, France* Nucleus migration within Drosophila oocyte



14.00-15.30 *Barbara Peruzzi IRCCS Children Hospital Bambino Gesù, Rome, Italy*Evaluation of nuclear dysmorphism, nuclear lamins and their interactors in pathologies through advanced confocal microscopy techniques

15.30-17.00 **Jeremy Carlton**, *King's College, London, UK* The ESCRT machinery at nuclear envelope: Closing holes and expanding roles

December 19th Monesi Room (CU0015)

Chromatin organization in development

Discussant: Chiara Mozzetta, IBPM-CNR Rome

10.00-11.30 *Philippe Collas, Department of Molecular Medicine, University of Oslo, Norway* 3D matters: epigenetic and chromatin conformation changes at multiple scales during adipocyte differentiation

11.30-13.00 *Fulvio Chiacchiera*, Department of Cellular, Computational and Integrative Biology, University of Trento

Role of chromatin-associated complexes during liver regeneration and tumor formation

14.00-15.30 **Daniela Palacios** Cattolica University of Rome Epitranscriptomics in muscle development and disease

15.30-17.00 **Matthieu Boulard,** *European Molecular Biology Laboratory EMBL, Rome* Sweet gene regulation in the mammalian embryo

December 20th Monesi Room (CU0015)



Genome Stability in mouse model of diseases

Discussant: Eleonora Centofante, Department of Biology and Biotechnology, "Charles Darwin", Sapienza University of Rome

10.00-11.30 *Jamie Hackett*, European Molecular Biology Laboratory EMBL, Rome What do chromatin modifications do? Epigenome editing to dissect function in health and disease?

11.30-13.00 *Monica Ballarino* Department of Biology and Biotechnology, "Charles Darwin", Sapienza, University of Rome

Myogenesis and long non-coding RNAs: a chromatin affair

14.00-15.30 *Marina Vietri, Institute for Cancer Research, University of Oslo, Norway* Nuclear envelope dynamics at ruptured micronuclei

15.30-17.00 *Rafal Czapiewski University of Edinburgh, UK (online)* Nuclear envelope controls genetic spacetime - focus on genome organization and function.

December 21thClassical Art Museum (CU003)

10.00-13.00 International Poster Session

14.00-17.00 Italian Poster Session



17.30 Best Poster Awards get together drink and music (Serra Room, CU022)

December, 22th Serra Room (CU022)

10.00-13.00: Exam

14.00-17.00: Course evaluation

Scientific coordination: Isabella Saggio Scientific committee: Isabella Saggio

Chiara Mozzetta Romina Burla

Eleonora Centofante