

1st qBio mini-Workshop

Preliminary program

Venue: IFOM - Conference Room, Via Adamello 16, Milan, Italy

Monday February 20

14:00 - 14:30 - Registration

Genome Stability /Evolution 1 - Chair: Alessandra Carbone, CQB - FR

14:30 - 14:35

Introduction: Marco Cosentino Lagomarsino, CQB/IFOM

14:35 - 15:05

Thierry Mora, ENS - FR

Statistical analysis of immune repertoires

15:05 - 15:35

Stefano Casola, IFOM - IT

The B cell antigen receptor as fitness determinant in aggressive MYC-driven lymphomas

15:35 - 16:00

Elodie Laine & Hugues Richard, CQB - FR

The impact of alternative splicing evolution on protein structure and conformational dynamics

16:00 - 16:30 - Coffee break

Genome Stability /Evolution 1 - Chair: Gilles Fischer, CQB - FR

16:30 - 16:35

Matteo Osella, IFOM - IT

Statistical laws in biological bipartite systems: from genome composition to single-cell gene expression.

16:35 - 16:40

Chiara Enrico-Bena, HuGef and PoliTo - IT

Quantitative physiology of cancer cell growth: from proteome partitioning to population responses.

16:40 - 16:45

Yuting Chen, CQB- FR

Genetic code expansion in Mice

16:45 - 16:50

Marco J. Morelli, IIT - IT

Selective regulation of transcription by the transcription factor Myc

16:50 - 16:55

Francesco Ghini, IIT - IT

Modes and Mechanisms of non-coding RNAs in development and cancer

16:55 - 17:00

Aubin Fleiss, CQB - FR

Chromosomal rearrangements and genome evolution in the Saccharomycotina subphylum

17:00 - 17:05

Christoph Feinauer, CQB - FR

Context-Aware Prediction of Pathogenicity of Missense Mutations Involved in Human Disease

17:05 - 17:35

Alessandra Carbone, CQB - FR

Human microRNA structural clusters

17:35 - 18:05

Stefano Campaner, IIT - IT

Transcriptional integration of mechanical and biochemical signals

19:00 - Pizza & beer at "Barrio Alto"

Tuesday February 21

Genome Stability /Evolution 2 - Chair: Paolo Maiuri, IFOM - IT

09:30 - 10:00

Ylli Doksan, IFOM - IT

Chromosome end protection and the response to double strand breaks in the telomeric DNA

10:00 - 10:30

Fabio Iannelli, IFOM - IT

The transcriptional landscape of a damaged genome

10:30 - 11:00

Gilles Fischer, CQB - IT

Genome evolution in yeast: from DNA replication to mutations, and back

11:00 - 11:30 - Coffee break

Genome Folding/Mechanics 1 - Chair: Francesco Ferrari, IFOM - IT

11:30 - 11:35

Marco Gherardi, CQB - FR

How jiggly is a folded chromosome in a crowded environment

11:35 - 11:40

Matteo Cristofalo, UNIMIB - IT

Bacterial chromosome organization: single molecule analysis (Magnetic Tweezers) of the combined role of the bridging protein H-NS and molecular crowding

11:40 - 11:45

Paolo Maiuri, IFOM - IT

Nuclear polarity: does it exist?

11:45 - 11:50

Paolo Maiuri, IFOM - IT

The pre-stressed nucleus

11:50 - 11:55

Gururaj Kidiyoor, IFOM - IT

ATR mediated regulation of nuclear and cellular plasticity

11:55 - 12:00

Vittore Scolari, Pasteur - FR

Out of equilibrium dynamics of a cross-linking polymer: chromatin as a case study

12:00 - 12:30

Daniel Jost, Université Grenoble Alpes - FR

Physical biology of chromatin: understanding the functional role of 3D chromosome folding using polymer physics

12:30 - 13:00

Chiara Lanzaolo, INGM - IT

Nuclear architecture dynamics in biological processes and disease

13:00 -14:15 - Lunch at Campus bar

Genome Folding/Mechanics 2 - Chair: Andrea Ciliberto, IFOM - IT

14:15 - 14:45

Marco Foiani, IFOM - IT

An integrated ATR, ATM and mTOR-mechanical network controlling nuclear plasticity and cell migration

14:45 - 15:15

Beatrice Bodega, INGM - IT

DNA repetitive elements mediate genome folding in health and disease

15:15 - 15:45

Guido Tiana, UNIMI - IT

Physical models highlight a strong correlation between chromosome structure and transcription

15:45 - 16:15

Francesco Ferrari, IFOM - IT

Computational biology solutions for the study of chromatin 3D organization

Free discussion

