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SUMMER SCHOOL

Molecular Basis of Ageing: from mechanisms to diseases

CONFERENCE HALL - PIAZZALE KOLBE 4- UDINE
also offered as Teams streaming to registered remote participants

Speakers and session topics:

September 4th, 2023, Michele Vendruscolo, University of Cambridge, UK
September 5th, 2023, Fabrizio D'Adda di Fagagna, IFOM, CNR, Milan, Italy
September 5th, 2023, Alessandro Vindigni, Washington University, St. Louis, MO, USA
September 6th, 2023, Robert Sobol, Brown University, Providence, RI, USA
September 6th, 2023, Bjoern Schumacher, University of Cologne, Germany

- **Seminar:** Principles of protein structural ensemble determination. Michele Vendruscolo (University of Cambridge)
- **Technology lecture:** Thermodynamic and kinetic approaches for drug discovery to target protein misfolding and aggregation. Michele Vendruscolo (University of Cambridge)
- **Seminar:** DNA replication stress and its implications for cancer and aging. Alessandro Vindigni (Washington University, USA)
- **Technology lecture:** Studying DNA replication fork dynamics genome-wide at single-molecule resolution. Alessandro Vindigni (Washington University, USA)
- **Seminar:** Telomere biology as the driver of aging. Fabrizio D'Adda di Fagagna (IFOM, CNR, Milan, Italy)
- **Technology lecture:** Noncoding RNA detection and functional studies. Fabrizio D'Adda di Fagagna (IFOM, CNR, Milan, Italy)
- **Seminar:** DNA repair in response to endogenous and exogenous genotoxicants and during the ageing process. Robert W. Sobol (Department of Pathology and Laboratory Medicine & Legorreta Cancer Center, Brown University, USA)
- **Technology lecture:** DNA damage analysis in cells and animal models. Robert W. Sobol (Department of Pathology and Laboratory Medicine & Legorreta Cancer Center, Brown University, USA)
- **Seminar:** Genome stability and the biology of aging. Bjoern Schumacher (University of Cologne, Germany)
- **Technology lecture:** Using model organisms and integration of genetics and -omics in aging research. Bjoern Schumacher (University of Cologne, Germany)

Day 1, September 4th, 2023

Time Speaker

13:00-14:00 Registration

14:00-14:15 Opening remarks

14:15-15:45 **Seminar:** Principles of protein structural ensemble determination.

Michele Vendruscolo (University of Cambridge)

15:45-16:30 **Coffee break & Meet the speaker of Day 1**

16:30-18:00 **Technology lecture:**

Thermodynamic and kinetic approaches for drug discovery to target protein misfolding and aggregation.

Michele Vendruscolo (University of Cambridge)

Day 2, September 5th, 2023

Time Speaker

9:00-10:30 **Seminar:** DNA replication stress and its implications for cancer and aging.

Alessandro Vindigni (Washington University, USA).

11:00-12:30 **Seminar:** Telomere biology as the driver of aging.

Fabrizio D'Adda di Fagagna (IFOM, CNR, Milan, Italy)

12:30-13:15 **Coffee break & Meet the speakers of Day 2**

13:15-14:00 **Lunch break**

14:00-15:00 **Technology lecture:** Studying DNA replication fork dynamics genome-wide at single-molecule resolution.

Alessandro Vindigni (Washington University, USA)

15:15-16:15 **Technology lecture:** Noncoding RNA detection and functional studies.

Fabrizio D'Adda di Fagagna (IFOM, CNR, Milan, Italy)

Day 3, September 6th, 2023

Time Speaker

9:00-10:30 **DNA repair in response to endogenous and exogenous genotoxicants and during the ageing process.**

Robert W. Sobol (Department of Pathology and Laboratory Medicine & Legorreta Cancer Center, Brown University, USA)

11:00-12:30 **Seminar:** Genome stability and the biology of aging.

Bjoern Schumacher (University of Cologne, Germany)

12:30-13:15 **Coffee break & Meet the speakers of Day 3**

13:15-14:00 **Lunch break**

14:00-15:00 **Technology lecture:** DNA damage analysis in cells and animal models.

Robert W. Sobol (Department of Pathology and Laboratory Medicine & Legorreta Cancer Center, Brown University, USA)

15:15-16:15 **Technology lecture:** Using model organisms and integration of genetics and -omics in aging research.

Bjoern Schumacher (University of Cologne, Germany)

ORGANISERS

- Alessandra Corazza
- Gaetano Vitale
- Gianluca Tell

PROMOTERS:

- School of Medicine
- Degree Course in Biotechnology
- Phd course of molecular medicine and Phd course of Clinical and traslational medical

FOR FURTHER INFORMATION:

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