

## Avviso di Seminario Lunedì 11 Marzo 2024

ore 9:00-12:30 e 14:00-17:00

nell'aula 1 del Polo Universitario di San Miniato

### 1<sup>st</sup> Mini Symposium on Light-Controlled Photoresponsive Proteins

The aim of the present symposium is to provide insights into the rich and diverse rhodopsin-based photoreceptors world. A series of presentations spanning from spectroscopy to computational studies will give an integrated perspective on the state of the art and future applications of this versatile class of light-responsive proteins.

***New light on the primary event in vision***

(Prof. Massimo Olivucci)

***Reaction dynamics in unusual microbial rhodopsins***

(Prof. John Kennis)

***Spectroscopic studies of primate red and green cone pigments to reveal spectral tuning mechanism***

(MSc student Sayaka Ohashi)

***Identification of proton transfer reactions in a primate blue sensitive pigment using infrared spectroscopy***

(MSc student Yosuke Mizuno)

***Theory of Photochemical Efficiency in Vertebrate and Invertebrate Visual Photoreceptors***

(Dr. Xuchun Yang)

***Structural complexity and dynamics in GPCRs revealed by vibrational spectroscopy***

(Prof. Kota Katayama)

***Picosecond Quantum-Classical Dynamics reveals that the Coexistence of Light-Induced Microbial and Animal Chromophore Rotatory Motion Modulates the Isomerization Quantum Yield of Heliorhodopsin***

(PhD student Riccardo Palombo)

***Structural basis of proton-selective transport in viral heliorhodopsin, V2HeR3***

(PhD student Ritsu Mizutori)

***Spectroscopic studies of the photoreaction process of the light-sensitive GPCRs, jellyfish rhodopsin***

(MSc student Shino Inukai)

***Fluorescence enhancement and spectral tuning; Archeal rhodopsins as a test case***

(Dr. Leonardo Barneschi)

#### Organizing Committee

Prof. Massimo Olivucci

Dr. Leonardo Barneschi

Riccardo Palombo

Jacopo D'Ascenzi

Il Direttore del Dipartimento di Biotecnologie, Chimica e Farmacia

Prof.ssa Agnese Magnani

Il Coordinatore del Dottorato in Scienze Chimiche e Farmaceutiche

Prof. Maurizio Taddei

Il Responsabile

Prof. Massimo Olivucci

*Il seminario fa parte dell'attività didattica del Dottorato di Ricerca in  
Chemical and Pharmaceutical Sciences*