



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

DIPARTIMENTO
DI FARMACIA
E BIOTECNOLOGIE

AVVISO DI SEMINARIO

Il giorno **7 Febbraio 2025**
alle ore **15.00**

Dr Luigi Scietti

Coordinator of the Biochemistry and Structural Biology Unit (BSU) at the European
Institute of Oncology (IEO) in Milan

(ospite di Prof Anna Maria Porcelli)

terrà un seminario in lingua inglese dal titolo:

Studying life at the atomic detail: a structural biology perspective

Area tematica: Structural Biology

in presenza:

Aula 1, via Belmeloro 6, Bologna BO

e in streaming:

<https://teams.microsoft.com/l/meetup-join/19%3aN09c0NlyEssBnF7ObCyDOQwkgDWM1qdd9f7F2nJV9fw1%40thread.tacv2/1631519544944?context=%7b%22id%22%3a%22e99647dc-1b08-454a-bf8c-699181b389ab%22%2c%22id%22%3a%225a941351-ef41-4aa4-8771-fa50a6d62ca1%22%7d>

Il seminario è organizzato nell'ambito del Corso del Dottorato in BCM.
Collegli e studenti sono cordialmente invitati

ABSTRACT

The integration of structural biology in the study of complex biological processes can provide profound insights in the molecular mechanisms underlying human health and disease. In this talk, I will describe how high-resolution molecular structures allowed to understand the catalytic mechanisms of collagen modifying enzymes that are key for connective tissue integrity and pathogenesis. In particular, I will dissect how a concerted enzymatic action allows the generation of the collagen glucosyl-galactosyl hydroxylysine, one of the most widely conserved post-translational modifications. Additionally, I will present the latest developments and approaches in the Biochemistry and Structural Biology Unit (BSU) at the European Institute of Oncology to study macromolecular complexes involved in oncogenesis. Overall, I will provide a flavor into modern structural biology approaches, showing their potential to unravel complex molecular mechanisms critical for health and disease.

BIOGRAPHICAL SKETCH

Luigi Scietti is the coordinator of the Biochemistry and Structural Biology Unit (BSU) at the European Institute of Oncology (IEO) in Milan.

In 2012, after completing his studies in Molecular Biology and Genetics at the University of Pavia (with an experimental thesis in Prof. A. Mattevi's lab), he moved to Novartis Vaccines (now GSK) in Siena for a PhD in Molecular and Cellular Biology. There, he combined protein microarray technology with biochemistry and biophysics to investigate the molecular mechanisms mediating pathogen recognition and evasion. He then joined the Prof. F. Forneris' Armenise-Harvard laboratory of structural biology in Pavia in 2016 for a PostDoc. In this lab, he set the grounds for a new research line focusing on collagen modifying enzyme. His research activity yielded (among the others) the first three-dimensional structure of a human collagen lysyl-hydroxylase (LH3). In 2021 he joined IEO as coordinator of the Biochemistry and Structural Biology Unit (BSU).

Luigi's activities allowed the set-up of the CryoEM pipelines at IEO and are now focussed in importing and implementing the latest technologies in protein production and integrative protein structure determination.