



AVVISO DI SEMINARIO

Lunedì 12 settembre 2022 ore 14:00

Dott.ssa Allegra Via*

“Bioinformatics, proteins, teaching and learning, and the ELIXIR research infrastructure: the keywords of a lifetime”

Il seminario si terrà nell’aula A del Dipartimento di Scienze Biochimiche
(edificio CU010)

Gli interessati sono invitati a partecipare

*Vincitrice della procedura selettiva per una posizione RTDB 05/E1-BIO/10,
presso il Dipartimento di Scienze Biochimiche “A. Rossi Fanelli”

Il Direttore
Prof. Fabio Altieri

Bioinformatics, proteins, teaching and learning, and the ELIXIR research infrastructure: the keywords of a lifetime

Bioinformatics and computational approaches to the study of biological macromolecules have always been at the centre of my interests. In this context, my scientific activities have developed in two main areas: the first concerns the study of protein functional sites, including binding sites, protein-ligand interaction sites, recognition sites, structural motifs, and short linear motifs. Research in this field consisted in the identification and analysis of key characteristics of functional sites at the sequence and structural level, in the development of resources and algorithms for the inference and analysis of protein functional sites, as well as in in-depth studies of specific classes of functional sites, such as phosphorylation sites. This research line today includes the study of how protein variants affect the architecture and the physicochemical properties of functional/binding sites of proteins involved in rare diseases, in antibiotic resistance, and in host-pathogen interactions. The second area is of infrastructural nature. In 2014, my research has been complemented by scientific activities within ELIXIR, the European research infrastructure for life-science information. Among the several activities carried out within ELIXIR, training has been playing a key role. In 2015, I created the ELIXIR Italy Training Programme for bioinformatics, and co-founded the ELIXIR Train the Trainer program for Europe. A research line in the field of learning and teaching sciences, as well as curriculum development, has been one of the outcomes of these activities.