

Laura Belvisi graduated in Chemistry cum laude at the University of Milano in 1990 and received the PhD in Chemical Sciences from the same University in 1994, after a three-year program on structure-activity relationships studies.

After a post-doctoral fellowship, she became Researcher of Organic Chemistry at the University of Milano in 1998 and Associate Professor of Organic Chemistry in 2015.

From 2001 to 2011 she was the scientific director of the Molecular Modeling Laboratory at the Interdipartimental Center for bio-molecular Studies and Industrial applications (CISI, originally funded by MIUR as a Center of Excellence) of the University of Milano.

Since 2013 she is collaborating to the organization of a Franco-Italian double master degree between the Strasbourg, Paris-Diderot and degli Studi di Milano Universities in the field of molecular modeling and drug design.

Her major research interests are focused on the application of a broad range of computational modelling techniques for the design and the study of structural and functional mimics of biomolecules, such as peptides and carbohydrates, which play a key role in the function of biological systems and in the etiology of many pathologic processes.

Her research relies on the integrated use of molecular mechanics, computer simulations and docking calculations with experimental information (X-ray, NMR) and is aimed at defining structure and dynamics of peptidomimetics, glycomimetics and their complexes with the target protein. In particular, she gained experience in the field of peptidomimetic modulators of protein-protein interactions involving apoptosis proteins or adhesion molecules, such as some integrin subtypes essential for tumor angiogenesis.

She contributed to the field by designing and investigating cyclic peptidomimetic integrin ligands displaying nanomolar affinity toward several integrins relevant in cancer biology, and by taking part to their exploitation as targeting agents for tumor-directed delivery of diagnostics or therapeutics, and as probes to interrogate the signaling pathways downstream of integrins.

She has participated as associated investigator to various cooperative research programs of the Italian Ministry of University and Research (PRIN and FIRB projects) and to various funded cooperative projects of the European Union. She is currently participating to the PRIN2015 project "Tumor-targeting peptidomimetics: synthesis and bio-medical applications" (2017-2020) and to the H2020 ITN Networks MagicBullet (2015-2018) and PhD4GlycoDrug (2017-2021).

She has co-authored more than 80 articles in peer reviewed international journals and 4 patents.

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