



UNIVERSITÀ
di VERONA

Scuola di Dottorato
di SCIENZE NATURALI ED INGEGNERISTICHE

Corso di Dottorato in Biotecnologie

“Chemical ligation approaches for protein synthesis and modification”

May 31st, 2019 - h. 11.00

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Abstract

Chemical synthesis of proteins by ligation approaches is unanimously recognized as a key strategy in protein preparation and modification, ensuring a limitless and surgically precise modification of protein covalent structure. The chemical ligation approach consists in the preparation of a polypeptide chain by sequentially joining short and unprotected peptide segments. To this aim, chemical ligation exploits chemo-selective reactions between two mutually reactive functional groups placed at respectively the C- and N- terminus of two contiguous peptide segments. Depending on the functional groups involved we can obtain, at the junction site, an amide bond (native chemical ligation) or a non-peptide bond. In this way a tailor - made protein endowed, in principle, with any specific property, can be obtained. With this weapon in their hands, scientists started to investigate sophisticated biological problems and to develop finest applications. Selected examples from our laboratory work will be presented from the preparation of site-selective double labeling proteins for folding studies to the synthesis of all-D protein for mirror-image phage display peptide library applications.

The lecture will take place at **11.00 – Aula D – Cà Vignal – Strada Le Grazie, 15**

Local organization and contact:

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For each hour of seminar, 1 CFU (provided for the specific activities of PhD Program in Biotechnology) will be recognized to students attending the event.

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