

DIPARTIMENTO DI BIOTECNOLOGIE MEDICHE DOTTORATO DI RICERCA IN BIOTECNOLOGIE MEDICHE



Structure and function of proteins: Theory and practice

Prof. André Matagne

Laboratory of Enzymology and Protein Folding Centre for Protein Engineering, University of Liège, Belgium

> June 17-21, 10:00-13:00 Polo Didattico Le Scotte – Aula 2

Prof. Luisa Bracci, Head, Department of Medical Biotechnologies Prof. Francesco Iannelli, Coordinator, Doctoral School in Medical Biotechnologies

Organizer: Prof. Jean-Denis Docquier, Department of Medical Biotechnologies (info: jddocquier@unisi.it - 0577/23 3134)

Faculty and programme

Prof. André Matagne
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André Matagne is Full Professor of Enzymology and Protein Folding and Director of the Centre for Protein Engineering. He is the founder of Robotein®, an automated high-throughput biomolecular and biophysical protein analysis platform, part of the European Instruct-ERIC (European Research Infrastructure Consortium for structural biology research) network.

The objective of this course (approx. 10 hours) will be to illustrate how optical methods (UV-visible absorption, fluorescence, infrared and circular dichroism) can be used to study protein folding, dynamics and stability.

The course will include a review of the optical properties of proteins. Then, concrete examples (e.g. β -lactamases, single-domain antibody fragments, lysozymes) will be analysed in detail, on the basis of theoretical background (briefly reviewed during the course) and data found in the literature.