



université
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Ph.D. Thesis - Guichard Group

Organic & Supramolecular Chemistry, CBMN-IECB, Bordeaux, France

We are looking for candidates to apply for a **doctoral funding from the University of Bordeaux** (auditions by the Doctoral School in June) for a project on the synthesis of proteomimetics based on foldamers.

For more information: <https://ed-chimie.u-bordeaux.fr/Doctorat/Offre-de-Theses>

Project: The design and synthesis of bio-inspired oligomers able to fold into predictable and well-defined structures – foldamers – have attracted increasing interest in recent years. The main objective is to understand how to program molecules capable of organizing themselves to form complex architectures and possess functions that can compete with those of proteins (catalysis, recognition of protein surfaces). The objective of this thesis is to design new molecules - multi-stranded artificial β -sheet and hairpin helix type - programmed to fold in a rational way by the formation of intramolecular H bonds, in order to enrich the diversity of accessible structures and allow the development of proteomimetic molecules mimicking the tertiary/quaternary structures of proteins and then mimicking their functions.

Where: This project will be developed in the group of the Prof. Gilles Guichard (<https://www.guichard-iecb.fr/>) at IECB (<http://www.iecb.u-bordeaux.fr/>) which is a dynamic interdisciplinary research center located on the campus of the **University of Bordeaux**, France. The laboratory is perfectly equipped for chemical synthesis and the institute is equipped with technology platforms bringing the state-of-the-art scientific instrumentation and expertise in structural biology and preparative and analytical techniques.

Profile: Candidates must have (or be in the process of obtaining this year) a Master 2 degree (or international equivalent) in Chemistry. They must be highly motivated to do research in foldamer chemistry. A first experience in supramolecular chemistry will be appreciated.

Application: Candidates interested should contact Dr. Christel Dolain (c.dolain@iecb.u-bordeaux.fr) and Dr. Gilles Guichard (g.guichard@iecb.u-bordeaux.fr). The procedure is detailed on the website of the doctoral school <https://ed-chimie.u-bordeaux.fr/Doctorat/Offre-de-Theses>

Application deadline: April 30, 2023