

**PhD position  
in organic synthesis and enantioselective catalysis,  
starting in September 2018**

A PhD position in organic synthesis and enantioselective catalysis is available for **36 months** at the “Institut des Sciences Moléculaires de Marseille” (iSm2 – UMR CNRS 7313 – Équipe STeRÉO), with funding by Aix Marseille Université’s Excellence Initiative.

**Keys words:** Organic Synthesis, Enantioselective Catalysis, Chirality, Atropisomers, Dearomatization.

**Project:** Arylic atropisomers are a class of compounds that exist as two enantiomers because of hindered rotation about the single bond to one of their substituents. Currently many research programs aim to prepare and study the interesting properties of these molecules. Based on our experience in the synthesis of arylc atropisomers using a central-to-axial chirality conversion strategy, we now wish to study their behaviour in dearomatization reactions.

**Bibliography:**

- O. Quinero, C. Bressy, X. Bugaut [Organocatalytic Enantioselective Construction of Polyaromatic Architectures](#), *Angew. Chem. Int. Ed.* **2014**, *53*, 10861-10863.
- O. Quinero, M. Jean, N. Vanthuyne, C. Roussel, D. Bonne, T. Constantieux, C. Bressy, X. Bugaut, J. Rodriguez [Combining Organocatalysis with Conversion of Chirality: Atroposelective Hantzsch-Type Synthesis of 4-Arylpyridines](#), *Angew. Chem. Int. Ed.* **2016**, *55*, 1401-1405.

**Applicant profile:** A master’s degree in chemistry with specialization in organic synthesis obtained with honors is absolutely required for this project. The applicant should already have gained lab experience in the preparation and the purification of organic compounds using standard techniques (chromatography, recrystallization, distillation), and a good knowledge in structural determination ( $^1\text{H}$ ,  $^{13}\text{C}$  and 2D NMR). We will look for a rigorous, motivated and enthusiastic candidate, with good communication skills and willingness to work in close interaction with their colleagues in an international research group. An experience abroad would be a plus.

**Salary:** 1770 €/month of gross salary, equivalent to 1420 €/month of net salary + the possibility to apply for teaching activities (fluent French speaking required).

**Applications by e-mail ([xavier.bugaut@univ-amu.fr](mailto:xavier.bugaut@univ-amu.fr)) should include:**

- a CV including the contact of at least one referee;
- a motivation letter;
- Master’s degree grades.

For details about our research group, see: <http://ism2.univ-amu.fr/en-gb/user/2232>.