

## Postdoctoral position available, starting in January 2025

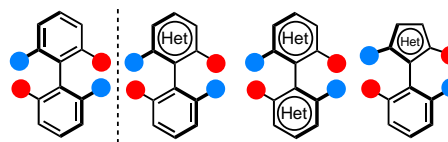
A postdoctoral position in organic synthesis is available for **12 months** at the “Institut des Sciences Moléculaires de Marseille” (iSm2 – UMR CNRS 7313 – Équipe StÉRÉO) and will be funded by the “Initiative d’Excellence d’Aix-Marseille Université A\*MIDEX” **Keys words: enantioselective synthesis; atropisomerism; boron chemistry**

**Het-NBA project:** Atropisomers can be defined as a subclass of conformers which can be isolated as separate chemical species, and which arise from restricted rotation about a single bond. Among them, biaryl and heterobiaryl atropisomers are the most common ones and many synthetic approaches are available.<sup>1</sup> Non-biaryl atropisomers constitutes another family of these axially chiral molecules with less synthetic approaches and consequently are less represented in the literature (see adjacent scheme b).<sup>2</sup> Within this family, the highly challenging enantioselective construction of even less common heteroatom-linked atropisomeric structures such as **diaryl-amine, -ether, -sulfide, and borane** still constitutes a daunting challenge of modern organic synthesis.<sup>3</sup>

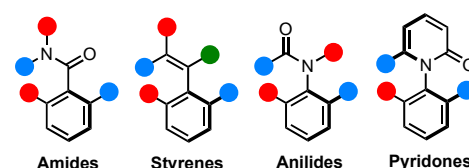
Therefore, the discovery of new configurationally stable heteroatom-linked atropisomeric scaffolds as well as innovative methodologies to control their configuration are needed. In this project, we wish to tackle this important synthetic challenge by **aiming at the atroposelective synthesis of various classes of heteroatom-linked non-biaryl atropisomers displaying either a stereogenic C–N, C–O, C–B bond.**

**Postdoctoral profile:** The position requires a solid training in organic synthesis. The skills required for this research are the classical skills of an organic chemist. We will look for a rigorous, motivated and enthusiastic candidate with excellent knowledge in synthetic organic chemistry research. An experience enantioselective synthesis and or boron chemistry will be a plus. The position will be entirely dedicated to this project and hence be 100% funded by the AMIDEX. **Candidates should send:** • a CV with a list of publications and communications • the contact of at least two referees. **Gross salary:** 2400 €/month. Applications can be sent to [olivier.chuzel@univ-amu.fr](mailto:olivier.chuzel@univ-amu.fr), [gaelle.chouraqui@univ-amu.fr](mailto:gaelle.chouraqui@univ-amu.fr) and [damien.bonne@univ-amu.fr](mailto:damien.bonne@univ-amu.fr)

a) Biaryl and heterobiaryl atropisomers - Many examples



b) Non-biaryl atropisomers - Less represented



c) Our targets



[1] J. K. Cheng, S.-H. Xiang, S. Li, L. Ye, B. Tan, *Chem. Rev.* **2021**, *121*, 4805.

[2] E. Kumarasamy, R. Raghunathan, M. P. Sibi, J. Sivaguru, *Chem. Rev.* **2015**, *115*, 11239.

[3] A. Naghim, J. Rodriguez, O. Chuzel, G. Chouraqui, D. Bonne, *Angew. Chem. Int. Ed.* **2024**, e202407767.