

**Aquitaine Region fellowship**

**“Development of new chiral hypervalent iodine reagents applicable to the concise total synthesis of biologically active natural products”**

**Description:** this postdoctoral position in organic synthesis, funded by the Council of the Aquitaine Region, is opened for a 12-month period, starting in January 2016, in the laboratory of Prof. S. Quideau at the University of Bordeaux (ISM, CNRS-UMR 5255). The project will concern the chemistry of hypervalent iodine (iodane)-mediated asymmetric transformations [1-3] and will be specifically aimed at developing new methodologies for the stereocontrolled formation of all-carbon quaternary centers. The postdoctoral fellow will work in tandem with a doctoral student with whom he will be in charge of the synthesis of novel chiral iodine and iodane compounds for their catalytic and/or stoichiometric utilization in carbon-carbon bond-forming reactions. The postdoctoral fellow will then apply these methodologies within the framework of the synthesis of complex natural products.

**Key words:** asymmetric synthesis, hypervalent iodine, green “metal-free” reactions, total synthesis.

**Application:** candidates must hold a doctoral degree in organic chemistry, should have a strong background in asymmetric synthesis, know how to perform multi-step reaction sequences (an experience in natural product synthesis will be appreciated), have the ability to work as part of a team and possess excellent written and oral communication skills.

A detailed curriculum vitae, and 2 letters of recommendation should be sent before **December 1<sup>st</sup>, 2015** to:

Prof. Stéphane Quideau	stephane.quideau@u-bordeaux.fr	05 40 00 30 10
Dr. Philippe Peixoto	philippe.peixoto@u-bordeaux.fr	05 40 00 63 94

**Bibliography:**

- [1] Bosset, C.; Coffinier, R.; Peixoto, P. A.; El Assal, M.; Miqueu, K.; Sotiropoulos, J.-M.; Pouységou, L.; Quideau, S. Asymmetric Hydroxylative Phenol Dearomatization Promoted by Chiral Binaphthyl and Biphenyl Iodanes. *Angew. Chem. Int. Ed.* **2014**, *53*, 9860-9864.
- [2] Quideau, S.; Lyvinec, G.; Marguerit, M.; Bathany, K.; Ozanne-Beaudenon, A.; Buffeteau, T.; Cavagnat, D.; Chénéde, A. Asymmetric Hydroxylative Phenol Dearomatization Via In Situ Generation of Iodanes from Chiral Iodoarenes and *m*-CPBA. *Angew. Chem. Int. Ed.* **2009**, *48*, 4605-4609.
- [3] Pouységou, L.; Deffieux, D.; Quideau, S. Hypervalent Iodine-Mediated Phenol Dearomatization in Natural Products Synthesis. *Tetrahedron* **2010**, *66*, 2235-2261.