



**Aquitaine –Karnataka collaboration
Scientific Project for Pre-PhD student exchange**

Scientific Proposal

Project Title	Total Synthesis of Rhazinal using Free-Radical Processes	
Scientific domain	Organic Chemistry	
Summary (ca. 10 lines)	The aim of this project is the development of a new total synthesis of alkaloids of the Rhazinilam family (see below) isolated from <i>Kopsia arborea</i> which are known to inhibit tubulin polymerization and are thus considered as potent antitumor agents as they mimic the cellular effects of paclitaxel [®] . The key-step of the strategy will be a new free-radical multicomponent reaction developed in this laboratory.	
Student profile wished	Students having an interest in organic chemistry as well as free-radical processes.	
Supervisor Name	Prof. Yannick LANDAIS	
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Institute/laboratory/industry (full address)	Institute of Molecular Sciences (ISM)	
Director Name Institute/laboratory/industry	Prof. Philippe GARRIGUES	
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Timing & duration for project (give approximate ranges)	4-6 months	
Representative References	1. Baudoin, O.; Guénard, D.; Guéritte, F. <i>Mini-Rev. Org. Chem.</i> 2004 , <i>1</i> , 333. 2. V. Liautard, Y. Landais, <i>Free-radical Multicomponent Processes in Multicomponent Reactions</i> , Eds. Zhu, J., Wang, Q., Wang, M. X., Wiley, 2nd Edition. 2015 , pp 401.	

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