## Research Grants for PhD students from the China Scholarship Council

**Information Form (please read the guidelines carefully on the website www-csc.utt.fr)**

**Supervisor's name:** QUENEAU  **Given names:** Yves

**Laboratory:** ICBMS, Laboratory of Organic and Bioorganic Chemistry - CNRS UMR 5246  **Website address:**


**Institution:** INSA LYON, Av A Einstein, 69621 Villeurbanne France  **Website address:**

http://www.insa-lyon.fr

**Scientific competence of the supervisor:**

Multi-step organic synthesis toward biologically active compounds and carbohydrate chemistry. Y. Queneau has strong connections with Chinese Universities (Xiamen, SCUT-Guangzhou, HUST-Wuhan, ECUST and ECNU in Shanghai), has been Co-Chair of several French Chinese Conferences (FC2GChem.org), Guest Editor of Franco-Chinese special issues in Comptes-Rendus Chimie, 2008 and in Science China Chemistry, 2010. He has been invited to teach carbohydrate chemistry in ECUST and HUST and invited lecturer > 35 times in Chinese universities. In 2015, he received the Lu Jiaxi lecture award from the College of Chemistry of the University of Xiamen.

Two major publications in the field proposed for the PhD:


**Website address of the personal page:**

Supervisor's email: yves.queneau@insa-lyon.fr

**Description of the research work proposed for a PhD**

**Title:** Chemistry, structure and properties of cell membrane acyl steroid glycosides.

**Keywords:** Acyl steroid glycosides, ASG, helicobacter pylori infections, age-related membrane dysfunction, liquid crystals, sensors, cholesterol, glycolipids, biomimetic membranes.

**Expected collaborations:**

The work will be conducted mainly in an organic synthesis team and in collaboration with biochemists in Lyon, and in collaboration with specialists of liquid crystalline systems at the University of York, (UK). Therefore the project will provide transdisciplinary education in chemistry and biology, including synthesis, physico-chemical studies, and biochemical investigations within biomimetic membranes.

**Background required from the applicant:**

The candidates must possess a strong background in synthetic organic chemistry. Experience in carbohydrate chemistry and/or at the interface with biology will be appreciated but are not mandatory. A good motivation to learn, communication skills, curiosity, and good team spirit are also among important qualities. Some knowledge of English is also important.

Existence of a PDF file detailing the proposal ("yes" or "no"): yes

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