

Job offer / Title: Master internship in synthetic organic chemistry

Work place: Faculty of Science and Technology - Lorraine University.
VANDOEUVRE-LES-NANCY / FRANCE.

Publication date: 09 January 2019.

Hours: 154 h monthly (average: 7.7 h weekly).

Salary indication: 577.50 euros monthly, according to salary scales issued by the french ministry of research.

Project description:

Flavonoids are natural polyphenol molecules that are very well-known for their antioxidant activities. However, flavonoids and derivatives can also show strong interactions with metabolism related bioprocesses, especially upon therapeutical treatments. For this reason, the feasibility study of combined treatment using classical pharmaceuticals and flavonoids are primarily relevant. That work will focus on the combined use of anti-cancer agents and flavonoids to figure out whether we are able to reach some synergistic effect. Biological testings will be held by czech partners: group of Iva BOUSOVA - PhD at the Charles University in Prague / Hradec Kralove.

Nude flavonoids and synthetic derivatives will be studied. Indeed, it is believed that lipid conjugation of flavonoids could help increase their bioactivities. The choice of the flavonoid and lipidic structures has been oriented, respectively, towards naringenin and terpenes.

Indeed, terpenes might play a double biological role, first supporting a direct pharmacological molecular action and second helping reach a more efficient formulation of the conjugate. Structurally speaking, terpenes are made of an association of several isoprenyl units (isoprene = C_5H_8) to each other. The length of the terpenes is directly related to their lipophilicity, which is involved in biological activity.

During that project, we are planning to perform the chemical conjugation of naringenin to several terpenic derivatives, in order to make a collection of compounds showing a wide range of lipophilicity. Thus we would be able to eventually draw structure / activity relationships for the synthetic derivatives.

Application:

Please send a CV and a cover letter (at most 1 page) explaining why you decided to apply to that internship offer to: Hubert CHAPUIS -PhD, hubert.chapuis@univ-lorraine.fr. The recruitment process will last until the position is filled with a suitable candidate.

For further information: +33687407122 (available on whatsapp). French, english and czech speaking.
Website: <http://lermab.univ-lorraine.fr/membres/chapuis-hubert>

