Two post-doctoral positions in natural product chemistry

1- Understanding and mimicking natural product complexity

- Offer description: post-doctoral fellowship (15 to 18 months) starting early 2023.
- Location: BioCIS, Université Paris-Saclay, Orsay, France.
- Project: it will associate bio-inspired total synthesis of complex natural products, quantum mechanics-based biosynthetic pathway evaluation and anticipation of molecular complexity with integrated workflows of hyphenated analytical and chemoinformatics tools (in close collaboration with the following offer).[1]
- Required skills:, organic synthesis, LC-MS, NMR, DFT calculations, experience in (or high motivation to learn) chemoinformatics (especially from mass spectrometry data), independence and initiative.
- Contacts: Pr Mehdi Beniddir (mehdi.beniddir@universite-paris-saclay.fr), Pr Erwan Poupon (erwan.poupon@universite-paris-saclay.fr).

2- Anticipating natural product complexity : *in silico* metabolic network

- Offer description : post-doctoral fellowship (12 months) starting early 2023
- Location : UMR8038 CiTCoM, Université Paris Cité, Paris, France
- Project : In its current state, MetWork[2] relies on expert knowledge for the modification of metabolites and it is the responsibility of the user to define and select the chemical transformations. The post-doctoral researcher will improve the current methodology by using biochemical reactions and metabolic pathways knowledge to define the transformations used by MetWork to propose new metabolites. (in close collaboration with the first offer).
- Required skills : Python programming, bioinformatics, cheminformatics
- Contacts : Dr Grégory Genta-Jouve (gregory.jenta-jouve@cnrs.fr)

[1] Key references in relation with the project : (a) https://doi.org/10.1021/acs.orglett.2c00108 (b) https://doi.org/10.1039/D1NP00023C

[2] https://academic.oup.com/bioinformatics/article/35/10/1795/5116145