

**Company name**

Sanofi

**Project title/description**

We are looking for a highly motivated biochemistry student to join a multidisciplinary team aimed at improving the resolution of small protein structures by cryo-electron microscopy (cryo-EM) and thus enable the use of this technique in the drug design workflow in our company. In this project, the student will develop a protocol to improve the visualization of small proteins (<100 kDa) by cryo-EM. We are going to use antibody fragments that can bind to two different proteins at the same time. The student will be involved in the selection and engineering of these antibodies to adapt them to our target molecule. The target-antibody complexes will be tested biochemically and biophysically. The other part of the antibody will be directed to a large molecule, like a virus. The combination of antibody, virus and target molecule should be sufficient for visualization by cryo-EM. The student will be able to test and collect data on our high-end microscope and analyse the data if they wish. The objective at the end of the project will be to obtain the high-resolution structure of the target protein and to understand its conformational flexibility. The successful candidate will be exposed to a range of experimental methods including molecular biology, biochemistry, structural biology and antibody discovery, and gain valuable insight into the science of drug discovery. Interested students should apply by the 1<sup>st</sup> December, 2020 with a complete and up-to-date CV and a half-page cover / cover letter. Applications should be sent to [chiara.rapisarda@gmail.com](mailto:chiara.rapisarda@gmail.com). If you wish to have more information on the project, do not hesitate to contact me.

**Required qualifications**

M1

**Location**

Vitry sur Seine, Ile-de-France

**Start of the internship**

January, March 2021

**Person to contact:**

Chiara Rapisarda, Lab head in cryo-EM, Sanofi ([chiara.rapisarda@gmail.com](mailto:chiara.rapisarda@gmail.com))

**Application deadline:**

15<sup>th</sup> December 2020

**Link to the company web site , or attached document (if applicable)**

<https://www.sanofi.com/>