



**POSTDOCTORAL FELLOWSHIP**  
**EA 6295 NMNS Nanomedicines and nanoprobes- Pierre Fabre Laboratories**  
**One year from may 2018**

The team: EA6295 NMNS federates complementary skills for developing and studying biocompatible nanosystems as vectors for active molecules and/or contrast agents for imaging. The research activities are centered around two main themes: theranostics of cancers and dermatology/cosmetics. Thanks to the multidisciplinary of the team, nanosystems can be studied all the way from their synthesis and complete characterization through to *in vitro* and *in vivo* testing. Novel bioanalytical approaches are developed in order to establish relationships between biological activities of the nanosystems and/or bio-active molecules and their physico-chemical properties.

The context: The post-doctoral fellowship is part of a project led by NMNS and Pierre Fabre laboratories (Toulouse, France). Pierre Fabre is the 2nd largest dermo-cosmetics laboratory in the world and the 2nd largest private French pharmaceutical group. Pierre Fabre owns subsidiaries and offices in 47 countries, enjoys distribution agreements in over 130 countries and counts more than 13,000 employees worldwide. Pierre Fabre's portfolio represents a continuum of activities spanning from prescription drugs and consumer health care products to dermo-cosmetics. In 2016, Pierre Fabre dedicated almost 180 million euros to R&D, shared between oncology, the central nervous system, consumer health care, dermatology and dermo-cosmetics.

The project: The fellow will work on the development of nanosystems able to modulate the penetration and distribution of an innovative active pharmaceutical ingredient into the skin, in order to set its potential efficiency against a specific skin disease. The mission of the fellow will include polymer chemical modification, nanosystems preparation and characterization. With the help of the permanent researchers of the team, the fellow will participate in the evaluation of the systems stability in pharmaceutical forms as well as of their *in vitro* toxicity. The interactions with the permanent researchers of the team will allow the fellow to acquire new skills in the domains of formulation, analytical chemistry and biology. The fellow will also be able to participate to the supervision of the young researchers in the lab (interns and PhD student).

The profile: The candidate has skills in polymer chemistry and organic chemistry to be able to chemically modify different types of polymers (synthetic polymers, polysaccharides, lipids). He/she knows about the techniques used to characterize polymers. An experience in the preparation and characterization of nanosystems is necessary. The candidate must be autonomous in all the aspects of the research: lab work but also written and oral reports (English).

In addition, following expertise will give extra points for final selection:

- At least 2 years of post-doctoral research work (public or private)
- Knowledge about the different nanosystems preparation: nanoprecipitation, emulsion/solvent evaporation or diffusion...
- Ability to exploit different analytical techniques like UV-visible, FT-IR, HPLC, DLS.

The base net monthly salary will be 2300€ and can be discussed as function of the post-doctoral experience of the candidate.

Please send CV and names of two potential referees to:

Dr. Emilie Munnier

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