Research according to a theranostic approach, combining therapy and multimodal imaging, has considerably increased during last decade. Numerous nanometric platforms, for drug loading and controlled release to tumoral zones are considered.

In this context, we are looking for a candidate for a 27 months post-doctoral work, funded by the NANORESISTANCE project (http://www.epos-iasis.com/IAPP/index.html, FP7 - Marie Curie Actions - Industry-Academia Partnerships and Pathways). The project scheme foresees for recruitment at the home institution-UPMC- and subsequent secondments to two industrial partners. The consortium of the project gathered two companies and three academic laboratories, located in Cyprus, Great Britain, Greece and France. The project offers both host-specific and network-wide training opportunities, including both laboratory and complementary skills.

The project is focused on the management of resistance to tyrosine kinase inhibitors using nanometric platforms for drug delivery. The first year of the postdoctoral contract will be located at Université Pierre et Marie Curie (Paris, France) and will be dedicated to the synthesis of magnetic drug delivery systems like magnetic silica core-shell nanoparticles. The next 9 months of the postdoctoral contract will be located in PRO-ACTINA company (Athens, Greece) and will be dedicated to the synthesis of designed inhibitors following, already established, synthetic approaches. These inhibitors will be used for grafting onto nanoparticles' surface. The last 6 months of the postdoctoral contract will be located in EPOS-lasis company (coordinator of the project, Nicosia, Cyprus) and will be dedicated to the development of 3-dimensional tissue constructs and electrospun nanofibers for in situ drug delivery and evaluation of nanoparticulate delivery across barriers in tumors.

The candidate should have a PhD in Chemistry, either in inorganic or organic chemistry, with basic knowledge particularly of polymer science and of cell culture and cell biology techniques. The successful candidate is expected to have more than 4 but less than 10 years research experience and be ready to face the challenges of a multidisciplinary project. Previous experience in synthesis and/or functionalization of nanoparticles and drug delivery modalities will be appreciated.

At the time of selection, the candidate, must not have resided or carried out his/her main activity in the country of the beneficiary home organization (France), for more than 12 months in the 3 years immediately prior to his/her selection under the project. Short stays such as holidays are not taken into account.

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