



Post-doctoral position Gif-sur-Yvette - FRANCE



Biochemical studies of human glucosamine-6P synthase

A 24 month post-doctoral position is available at the Institute of Natural Products, Gif-sur-Yvette, France. The project offers the opportunity to work at the interface of biochemistry, biophysics and chemistry.

Project : Inhibiting the hexosamine pathway, and in particular the hGfat which is the limiting enzyme, establishes a new and promising therapeutic target for the treatment of diabetes vascular complications. To date, several inhibitors were described for the bacterial or fungal enzyme; these are mainly substrate analogues and none could be developed. The human enzyme was moreover the subject of research programs in at least two industrial groups. The originality of the project resides both in the target, glucosamine-6P human synthase hGfat, and in the various methods implemented in research and evaluation of inhibitors.

Candidate : The position is suited for a highly motivated research fellow with well-developed social skills directed to work in a team. The research project requires strong skills in protein expression/purification/characterization.

During this postdoctoral training period, the molecular bases for the organisation of hGfat will be analyzed by biochemical and biophysical approaches (photolabelling, microcalorimetry for example).

The main goal is to understand the structural bases of the assembly of hGfat into a tetramer, its regulation by the end-product of the pathway UDP-GlcNAc and the mode of action of the low micromolar inhibitors synthesized in the laboratory. The elucidation of the 3D structure of hGfat is one the most challenging objective in the field. The association of motivated specialists in computer assisted drug design, chemists, enzymologists, physico-chemists and physiologists is an important factor to ensure the success of this project.

Start date : January 2009 **Salary :** ~1900-2200 €/month

Applications will be considered until November 30th, 2008.

Send cover letter, CV and addresses of two referees, to :

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