Offer type: job

Contract: Temporary

Salary range: ≥ 35,000 and < 45,000€ annual gross

Employer: Commissariat à l'Energie Atomique et aux Energies Alternatives

Workplace: Saclay - FRANCE

Skill area: Biology, Medicine, Health **- Biomolecules, pharmacology, therapeutics** - Chemistry

Application deadline: 03/01/2013. (extended)

SIMOPRO, Section of Molecular Protein Engineering, headquartered in Gif/Yvette nearby Paris, is a CEA leading research-focused Section headed by Dr. V. Dive in the field of protein/peptides engineering for diagnosis and therapeutic applications. SIMOPRO belongs to LERMIT laboratory of excellence on therapeutic innovation (www.labex-lermit.fr).

Mission:
POSTDOCTORAL POSITION in SIMOPRO/CEA:
Design and synthesis of MMP-12-specific probes as novel tracers for imaging of vascular inflammation in atherosclerosis.

Who we are:
The team of Vincent Dive has a long-standing expertise on the development of zinc-metalloproteinase inhibitors and probes through the exploitation of the phosphinic peptide chemistry. Our group has identified highly potent inhibitors able to selectively interact with MMP-12 (see Devel *et al.* 2006, 2010 and 2012). MMP-12 is a zinc Matrix MetalloProtease also called macrophage elastase that is secreted by macrophage and over expressed in various pathologies such as atherosclerosis. We recently demonstrated in a mice model of atherosclerosis with established plaques, that RXP470.1, one of our highly selective inhibitor, fully blocked further plaque growth and prevent plaque rupture (Johnson et al. ATVB 2011).

The position:
In the frame of the National Institutes of Health (NIH) funding, a post-doctoral position is available (24 months, open January 2013) for developing specific matrix metalloproteinase 12 probes. Based on the structure of highly selective MMP-12 inhibitors such as RP470.1 mentioned above, our aim is to design

novel MMP-12-specific tracers for imaging vessel wall inflammation in atherosclerosis. Bioavailability and targeting properties of such tracers will be evaluated by fluorescent imaging in different animal models where MMP-12 is over expressed.

Candidates profile:
As a PhD or a post-doctoral fellow you have expertise in organic chemistry and solid phase synthesis. You are familiar with basic biochemistry approaches to perform *in vitro* evaluation of tracers on a set MMPs and other Metalloproteases. You will be also taken to participate in *in vivo* fluorescent imaging experiments. You have a good command of spoken and written English. Age<30 years old.

Applications will be sent to laurent.devel@cea.fr (email subject: in vivo fluorescence imaging) and will comprise a CV, an abstract of scientific researches -max. 2 pages- and 2 letters of recommendation. Only fulfilled application will be considered.