Center for Biology and Research in Health, Limoges

Post-doctoral position in immunology

CNRS UMR7276
INSERM U1262
Control of Immune response B and Lympholproliferation (CRIBL)
https://www.unilim.fr/cribl/

Team BioPIC (Biology of Plasma Cells, Immunopathology and Cancer)

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Scientific summary:
AL Amyloidosis is an incurable disease caused by the deposition in the organs of insoluble fibrils composed of a monoclonal immunoglobulin (Ig) light chain (LC) produced by proliferating plasma cells. Whether formation of amyloid fibrils in general and AL fibrils in particular have been extensively studied *in vitro*, there is still a lack of reliable experimental *in vivo* models. We have recently uncovered the conditions to trigger AL amyloidosis in mice. This model will help understanding the formation of amyloid fibrils *in vivo* and make the link with *in vitro* studies. It is also an exquisite tool to evaluate new therapeutic strategies in preclinical studies (collaborations with private and academic partners).

Activities:
The applicant will be in charge of the biochemical and immunological characterization of the amyloid fibrils (in vitro and in vivo) and amyloid deposits in tissues (Histopathology, Mass spectrometry, RNAseq, Spatial transcriptomic). He/She will use different systems to produce new Ig LCs and will improve the current mouse model with additional transgenic approaches (Crispr-Cas9 modifications in ES cells).

Candidate profile:
We are seeking a PhD with strong expertise in immunology, antibodies and B cells. Skills in biochemistry of proteins, structural biology, production of recombinant proteins (prokaryotic and eukaryotic) and/or transgenesis (transfection, ES cells) and/or animal experimentation will be appreciated. General knowledges in physiology (heart, kidney) are also expected.

Work Context:

The CRIBL unit (UMR CNRS7276 / INSERM1262) is located in Limoges, France, in a recent and spacious building. It is made up of about 60 people including researchers, students, engineers/technicians and clinicians. The theme of the unit is focused on the B lymphocyte in a normal or pathogenic context (lymphoproliferations). The BioPIC team in which the post-doc will be recruited is made up of around 20 people and is more particularly interested in plasma cells and immunoglobulin deposition diseases. It is backed by the French National reference center for AL amyloidosis. The work will be done in collaboration with several academic and private partners (France, USA, Germany, Italy…)

Information/Contact:
30 months contract (ANR PRC grant). Starting first semester 2022. Gross salary between 2600 and 3000 euros/months upon experience. Applicants are invited to send a copy of PhD diploma, a CV (with list of publications, research experiences and referees) and a cover letter to Christophe Sirac (christophe.sirac@unilim.fr)

References:

- Javaugue et al, Kidney int 2021 doi: 10.1016/j.kint.2021.10.017
- Bridoux et al. Nat Rev Nephrol 2021 doi: 10.1038/s41581-021-00405-7
- Bender et al. Blood 2020 doi: 10.1182/blood.2020005980
- Bender et al. Blood 2020 doi: 10.1182/blood.2019004197
- Sirac et al. Nat Rev Nephrol 2018 doi: 10.1038/nrneph.2018.8
- Srour et al. J Exp Med 2016 doi: 10.1084/jem.20131511