Postdoc Position available







To study "Restoration of anti-tumor immunity by targeting the extracellular matrix with CAR T cells"



In the INCa PLBIO funded project "Matrix-CAR-Targeting": Restoration of anti-tumor immunity by targeting the extracellular matrix with CAR T cells" three research laboratories (E. Donnadieu, Institut Cochin, Paris, C. Ferrand, EFS, (French Blood Center), Besançon, G. Orend, INSERM U1109, Strasbourg) are collaborating in developing and applying novel tools to target the extracellular matrix for reprogramming the immune suppressive tumor microenvironment including peptides and CAR (chimeric antigen receptor) specific CAR-T cells. Spatial distribution, migration and activation of engineered T cells will be investigated in spheroid cultures, ex vivo tumor tissue slices, and cancer progression models. Tumor immunity, growth and lung metastasis and tumor microenvironment properties will be determined by flow cytometry, tissue staining, cytokine array and RNA seq analysis.

A 18 months position (postdoc) starting in spring 2023 is available in the « Thérapeutique Immuno-Moléculaire des Cancers » (TIMC) teams with Dr Christophe Ferrand (INSERM U1098 Right, Besançon). This laboratory (<u>https://umr-right.com/</u>) is specialized in cell immunotherapy against hematological malignancies and Cancer. Expertise since more 20 years in gene modified T-cells, as CART cells or TgTCR. In the field of CART-cells,

we have develop and demonstrated the proof of concept of a 3rd generation CAR, secured by a suicide gene safety switch (*Warda et al, Cancer Gene ther 2021*) is able to kill CML leukemic cells (*Warda et al, Cancer Res 2019*) and also AML blasts (*Trad et al, JITC 2022*). Based of experience of the French blood center, the works at pre clinical level (*Nicod et al, in press, Neto da Rocha et al, 2022*) performed at the UMR1098 Research team and the local network including Besançon hospital and Hematology department, the next step will be a phase I/II clinical trial in order to demonstrate feasibility of this new cell immunotherapy approach. UMR1098 will bring their experience in gene therapy, vector design; murine models to the Matrix-CAR-Targeting project.

<u>We offer:</u> a highly dynamic and supportive group of colleagues including researchers, postdocs, PhD and master students and technical personnel with expertise in cell and gene therpay, murine tumor models and tumor immunity. The salary remuneration follows INSERM guidelines taking into account previous experience. *

<u>We search</u>: a highly motivated scientist with strong background in tumor biology, mouse tumor models, immunology and cell culture, gene therapy and high team spirit and good English communication skills.

Interested candidates are invited to send their CV together with a motivation letter and the names of 2 referees to Dr Christophe FERRAND (christophe.ferrand@efs.sante.fr)