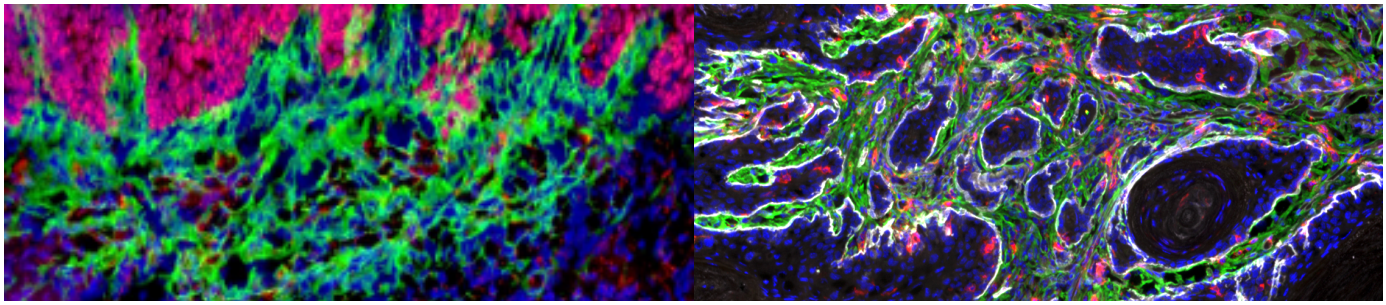
Research Engineer/Postdoc Position available

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 36 months position (research engineer/postdoc) starting in spring 2023 is available in the **Tumor Microenvironment group** of **Gertraud Orend** (INSERM U1109, Strasbourg). This laboratory (**https://orend-tme-group.com**) is specialized in the analysis of the tumor microenvironment with particular emphasis on the extracellular matrix molecule **tenascin-C** (*Yimaz et al., 2022, **J Cell Sci***, *Midwood et al., 2016, **J Cell Sci***). This laboratory has demonstrated pivotal roles of tenascin-C in tumor angiogenesis (*Saupe et al., 2013, Cell Reports, Rupp et al., 2016, **Cell Reports***), metastasis (*Sun et al., 2018, **Cancer Res**, Sun et al., 2019, **Mat Bio***) and tumor immunity (*Deligne 2020, **Cancer Immun Res**, Spenle et al., 2021, **Front Immunol***), and recently showed that tenascin-C orchestrates an immune suppressive tumor microenvironment. The novel concept of **"TIL-Matrix Retention"** where tenascin-C immobilizes tumor infiltrating leukocytes (TIL) could explain how matrix counteracts immune checkpoint therapy (*Spenlé et al., 2020, **Cancer Immun Res**, Murdamoothoo et al., 2021 **EMBO Mol Med***). In frame of this project the candidate will apply novel CAR T cells and the recently published MAREMO peptides (Loustau et al., 2022, ***Mat Bio***).

We offer: a highly dynamic and supportive group of colleagues including researchers, postdocs, PhD and master students and technical support with expertise in extracellular matrix research, murine tumor models and tumor immunity. The salary remuneration follows INSERM guidelines taking into account previous experience.

We search: a highly motivated scientist with strong background in tumor biology, mouse tumor models, immunology, immunohistochemistry and cell culture, 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 three referees to **Gertraud Orend** (gertraud.orend@inserm.fr)