

aviesan

alliance nationale
pour les sciences de la vie et de la santé

ITMO Cancer

Postdoctoral Research Position available

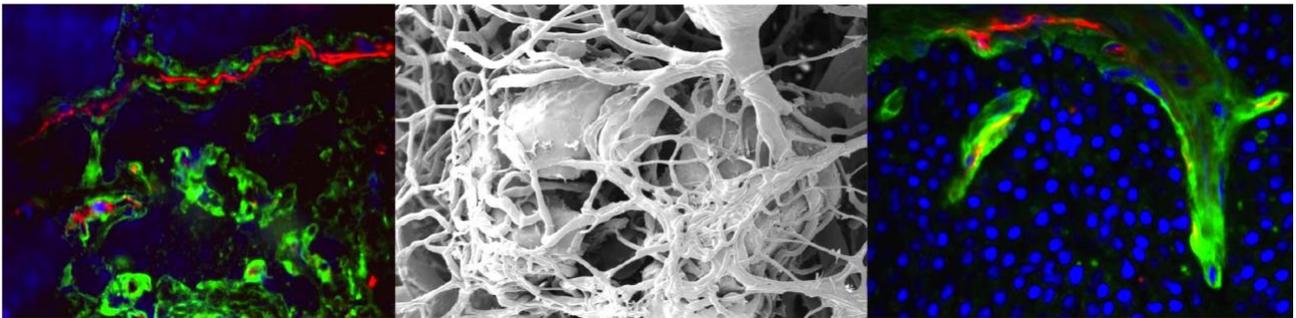
To study the Roles of Radiotherapy on the Tumor Microenvironment

Tumor
Micro
Environment



Inserm

Institut national
de la santé et de la recherche médicale



In the Aviesan ITMO Cancer funded project “**RADIO-3R: Understanding and REFINING the influence of RADIOtherapy on the tumor microenvironment, by applying novel models to REDUCE and REPLACE animal models**” two research laboratories in Strasbourg are collaborating in developing and applying photon and proton irradiation protocols in 3D cell cultures and in tumor mice with the goal to understand the impact of radiotherapy on the tumor microenvironment and to develop surrogates for tumor mouse models. A major goal is to enhance on-target effects of radiotherapy with the future aim to improve immune checkpoint therapy.

A 24 months postdoc position 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 (*Midwood et al., 2016, J Cell Sci*). We have 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*). We showed that tenascin-C orchestrates an immune suppressive microenvironment and established a novel concept that could explain how matrix counteracts immune checkpoint therapy by demonstrating that tenascin-C immobilizes CD8 TIL thus physically separating them from the tumor cells (*Spenlé et al., 2020, Cancer Immun Res, Murdamoothoo et al., 2021 EMBO Mol Med*). In frame of this project the candidate will investigate irradiated tumor mice and tumor organoids in a comprehensive manner by using flow cytometry, tissue staining, gene expression analysis, proteomics and gain and loss of function approaches.

We offer: a highly dynamic and supportive group of colleagues including researchers, postdocs, PhD and master students and technical personnel 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 background in tumor biology, mouse tumor models, immunology 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).