

3-year POST-DOCTORAL POSITION IN TUMOR IMMUNOLOGY

Léon Bérard Center, Cancer Research Center Lyon, France

Open position: Post-doctoral fellow in Tumor immunology

Location: Cancer Research Center of Lyon (CRCL), UMR INSERM 1052 CNRS 5286, Centre Léon Bérard (CLB), Lyon, France

Date posted: September 2021

Application deadline: December 2021

Start date: As soon as possible, the position is available immediately.

Context:

The research team of Dr. Christophe Caux ("Cancer Immune Surveillance and Therapeutic Targeting (CISTAR)" (<https://www.crcl.fr/en/teri-department/cancer-immune-surveillance-and-therapeutic-targeting>) is seeking a degree-qualified post-doctoral fellow. The Caux team is exploring the mechanisms of immune-surveillance and immune escape in breast, ovarian and colon tumors, with the ultimate objective to identify targets to restore efficient therapeutic anti-tumor immunity. The team is tightly connected to the CLB translational research structure and the Laboratory for Immunotherapy of Cancer of Lyon (LICL) for immuno-monitoring of clinical trials.

The team has acquired evidence of Dendritic Cell (DC) subsets and Natural Killer (NK) cell dysfunction in breast tumor. Based on this observation, and preliminary data in colon tumors, the candidate will decipher the role of NK and DC subsets, as well as their crosstalk, in the context of colon carcinoma at different stages of the disease (adenomas - adenocarcinomas) in patients.

The project will be developed under the supervision of Dr Clélia Coutzac (MD, PhD) in close interaction with Dr Nathalie Bendriss-Vermare (Expertise in NK/pDC, PhD, CRCN INSERM), Dr Jenny Valladeau-Guilemond (Expertise in cDC/pDC, PhD, CRCN INSERM) and Dr Marie-Cécile Michallet (Expertise in neutrophils and Colorectal cancer immunity, PhD, CRCN CNRS) within the CISTAR team.

Scientific background for the research program:

The candidate will focus on colon carcinoma and use unbiased system biology and biologically-driven approaches in human, to identify important mechanisms of functional alteration of the NK/DC subsets crosstalk in two different cohorts of patients:

- The Colon-IM cohort, including patients with localized colorectal adenocarcinomas compared to healthy tissues and adenomas.

- The IMHOTEP cohort, including patients with localized MSI colorectal cancer. Biological samples will be harvested before (biopsy) and after (surgery) anti-PD-1 monoclonal antibody treatment.

Approaches and methodologies will include:

- Biological investigation on fresh immune cells (DC and NK cells) isolated from human tumors,
- scRNAseq,
- Spatial analysis of the immune contexture through Multi-ImmunoFluorescence and analysis on clinical outcome on large retrospective cohorts.

Profile:

The applicant must have a Ph.D. in Immunology. A documented positive experience in studying human DC or NK cells will be a plus. Excellent communication skills, and team spirit are essential.

Technical skills and abilities:

- Experience in multiparametric flow cytometry
- Experience in analysis of next generation sequencing techniques will be a plus
- Strong motivation, autonomy, and excellent team working skills
- High standards of integrity, accuracy, and great rigor are essential
- Good proficiency in English is mandatory

Please submit your application (CV, letter of motivation, and contact details of 2 references) by E-mail to both:

clelia.coutzac@lyon.unicancer.fr
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