**Junior Post-Doc position in OncoImmunology**

**IL4 induced gene 1 and tumor escape in melanoma: An emerging biomarker for prognosis and for the resistance to immunotherapy**

**PROJET/RESEARCH PROJECT**

Enzymes catabolizing essential or semi-essential amino acid play a crucial role in immunosuppression at the tumor site. Among those, **IL4-induced gene 1** (IL4I1), a phenylalanine oxidase expressed in the TME of most solid cancer types, inhibits T lymphocytes. We have evidenced its role in tumor escape in **experimental murine models of mela** **noma**. We have also detected IL4I1 expression *in situ* in most of **human primary cutaneous melanoma** that may be relevant to predict prognosis. Interestingly, the proportion of IL4I1+ cells correlates negatively with the presence of cytotoxic CD8+ T cells and positively with the presence of regulatory T cells. Collectively, our findings strengthen the rationale for therapeutic targeting of IL4I1 as key immune regulators.

The project aims at elucidating the IL4I1-dependent-protumoral mechanisms using various mouse models we set-up and melanoma biopsies from patients treated or not by immune checkpoint inhibitors. This project relies on multiple up-to-date technical approaches such as **cell sorting**, **laser microdissection**, ***in situ* tissue analysis** and **RNA-seq analyses**, combined with ***in vivo* monitoring of melanoma development** after adoptive transfer, functional neutralization or depletion of IL4I1+ cells.

We invite applications from highly motivated junior candidates (i.e. <2 years of post-doctoral experience). The candidate should have a strong background in **Immunology & cancer biology**. Prior experience in laser microdissection, **RNA sequencing** and good knowledge of **bioinformatic** and statistical tools is required. Excellent time management, organisational abilities and proficient communication skills are essential.

**STRUCTURE D’ACCUEIL / LOCATION**

Our group is part of the team “Dendritic cells and B cells in their microenvironment during viral infections and cancer” in the Institut Cochin, one of the largest French Biomedical Research center (38 research teams and 10 state-of the art core facilities). The group and host institute will provide a stimulating and interactive environment.

*Group website:* https://www.institutcochin.fr/departments/3i/team-hosmalin/group-armelle-prevost-blondel?set\_language=en

**CONTRAT / FINANCIAL SUPPORT**

Type: **CDD Funding INCa** Organization: **INSERM**

Beginning: **expected in January 2019** Length of contract: **2 years (possibility of extension)**

Applicants should send their full CV (including publication record), a letter of motivation and the name of 2-3 references, to **Armelle Blondel** : armelle.blondel@inserm.fr

