

September 2017

Novartis Institutes for Biomedical Research

6 month internship proposal in Basel, Switzerland – iBIO computational biologist

Immune-related diseases are characterized by dysregulation of the homeostatic balance within the tissue microenvironment where resident immune cells become pathogenic. To better understand these pathophysiological changes and identify novel therapeutic strategies to fix them, our project is aiming at better defining the subsets of immune cell populations that contribute to immune diseases in specific human tissues. The clinical relevance of a well-defined immune landscape to successfully treat cancer patients with immune checkpoint inhibitors strongly supports to extend the concept beyond immuno-oncology. Our experimental approaches will first focus on the transcriptomic characterization of immune cell subsets isolated from biopsies of healthy as well as auto-immune and inflammatory disease tissues.

We are seeking for a talented post-graduate bioinformatics intern to support the analysis of mRNA expression data from human tissues as well as isolated immune cell populations. In parallel, computational deconvolution methods will be applied to identify and quantify tissue immune cell fractions from human transcriptomics databases build from tissues with diverse cellular components. The selected candidate will be integrated in a global group of bioinformatics experts and work in close collaboration with the lab scientists conducting the experimental work. A first internship experience in an immunology project is requested.