**Immunity and Cancer**

**TEAM LEADER**
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**LABORATORY**
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**TYPE OF COLLABORATION**
Collaborative projects
Expertise
Training for master and PhD
Immunological databases from lymphoma patients

**RESEARCH AREAS & OBJECTIVES**
- Alterations of innate immunity associated to cancers
- Molecules of immune co-signaling and co-stimulation
- Role of the immune system in the microenvironment of lymphoproliferations
- Acquired immunodeficiencies related to cancer
- PI-3K signaling pathway
- Immunomonitoring of biotherapies in cancerology

**EXPERTISE**
**Biological targets and in vitro / in vivo / ex vivo models**

**Targets**
- Co-signaling molecules and innate immunity
- Innate immunity and cancer

**Models**
- Ex-vivo cultures
- Immunodeficient mice
- KO and KI models

**Blood and tissue biomarkers**
Co-signaling molecules and lymphomas

**Early pharmacodynamic signs of activity**
Co-stimulation of T-cells and phosphatidyl-inositol 3'-kinase (PI-3K) signaling pathway

**Tools, processes and platforms in connection with clinical research**
- Immunohistochemistry
- Generation of monoclonal antibodies
- IBiSA platform of cancers immunomonitoring
- Advanced Flow cytometry
- Regional platform of somatic molecular oncogenetics

**PLATFORMS & TECHNICAL RESOURCES**
- Cancer immunomonitoring: Phase I studies
- Preclinical models
- Works on patients samples
- Polychromatic flow cytometry
- IHC

**R&D OFFER**
- Collaborative projects
- Expertise in immunology related to cancer
- Setup of immunomonitoring projects
- Training for master and PhD including “Master Pro” of flow cytometry
- Access to immunological databases from lymphoma patients
- ADCC NK assay in *in vitro* cell models of lymphoma patients
- Immune biomarkers analysis (flow cytometry)

**KEY WORDS**
Co-signaling molecules, Microenvironment, Innate immunity, Immunodeficiency related to cancer