**Immunology and Oncogenesis of Lymphoid Tumors**

**TEAM LEADER**
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**LABORATORY**
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**TYPE OF COLLABORATION**
Collaborative research
Access to databases

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**RESEARCH AREAS & OBJECTIVES**

**Research areas**
- Oncogenesis of peripheral T-cell lymphomas
- Immunoregulation by the immunosuppressive enzyme IL4I1
- Identification of diagnostic, prognostic and predictive biomarkers in lymphomas

**Objectives**
The team’s objectives are to:
- describe oncogenic events that transform normal lymphocytes to tumour cells to improve lymphoma diagnosis and treatment,
- understand the mechanisms responsible of the decreased anti-cancer immune responses mediated by IL4I1.

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**EXPERTISE**

**Biological targets and in vitro / in vivo / ex vivo models**
- Molecular alterations in lymphoma entities, especially in epigenetic regulators and in cell signalling (especially TCR and co stimulatory signalling) in T-cell lymphomas
- Immunomodulatory effect of IL4I1

**Models:**
- KO IL4I1 and double KO IL4I1/IDO mice
- Numerous lymphoma cell lines

**Blood and tissue biomarkers**
- Mutations identification: allele specific PCR, High-Resolution DNA Melting (HRM), Next Generation Sequencing
- Gene expression: RT PCR, microarray, RT MLPA
- Cytogenetic studies: aCGH, FISH
- In situ protein expression: immunohistochemistry allowing the analysis of markers on the tumor cell and on the microenvironnement, in particular IL4I1 (monoclonal antibody developed by the group)

**Tools, processes and platforms in connection with clinical research**
- Biological resources:
  - TENOMIC collection: more than 800 T-cell lymphoma with multiples annotations and molecular data
  - LYSAP-P
  - Mondor Biobank
- Imaging platform (IHC, FISH, TMAs, scanning and image analysis related to LYSAP-P platform)
- Clinical resources:
  - LYSAP
  - CLIP², allowing development of early phase clinical trial

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**PLATFORMS & TECHNICAL RESOURCES**

Microscopy / FISH / Tissue chips / Virtual images / Genomic platform with NGS

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**R&D OFFER**

- In vitro preclinical models
- Access to well annotated and characterized lymphoma collection (more than 800 PTCL in TENOMIC)
- Pathological review, immunohistochemistry, FISH, molecular diagnosis
- Early phase clinical trial

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**KEY WORDS**
Peripheral T-cell lymphomas, Oncogenesis, Lymphoma biomarkers, IL4I1