# Project 1

**Daniel Olive, Luc Xerri, Reda Bouabdallah**

**Regulation of the TVg9Vd2 lymphocyte proliferation by the BTLA HVEM interaction: tumor escape mechanism of human B lymphomas**

**Objectives**
The proliferation and functions of the cells of innate and adaptive immunity are regulated by cosignaling molecules belonging to the CD28/B7 and TNF / TNFR families. We previously demonstrated the presence of PD-1 and BTLA on lymphocytes and Vg9Vd2 lymphocytes in the microenvironment of lymphomas. Their ligands are expressed by lymphoma cells. Our study analyses their role in the homeostasis of T lymphocytes and Vg9Vd2 T lymphocytes by PD1 and BTLA.

**Means**
This study is based on the analysis of samples from lymph nodes of patients with lymphoma (Paoli Calmettes institute) and purification techniques of infiltrating cells. We created a panel of monoclonal antibodies that allow us to test the function of these molecules. This study uses techniques of polychromatic flow cytometry combining 11 to 13 markers.

**Partners**
Jude Fitzigibbon (Barts Cancer Institute, London, UK)
Beckman Coulter Immunotech

**Valorisation**
New immunotherapy strategies
### Project 2

**Daniel Olive, Luc Xerri, Reda Bouabdallah**

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<thead>
<tr>
<th><strong>Expression and function of ICOS and ICOSL in non-Hodgkin lymphoma</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Objectives</strong></td>
</tr>
<tr>
<td><strong>Means</strong></td>
</tr>
</tbody>
</table>
| **Partners** | Dominique Leroux (CHU Grenoble)  
Christophe Caux (CRCL, Lyon) |
| **Valorisation** | This work should allow to propose new strategies for immunotherapy in lymphoma.  
Patent INSERM Transfert « Antibodies directed against ICOS and uses thereof” EP11305380. |