UFR de Chimie et de Biologie
UNIVERSITÉ Grenoble Alpes

**Master's degree in Biology – Chemistry-Biology Department**

# Master 2 internship project
# Year 2025-2026

**Laboratory/Institute:** TIMC/IMAG
**Director:** A. Moreau-Gaudry
**Team:** T-RAIG
**Head of the team:** A. Baillet/B. Huard

**Name and status of the scientist in charge of the project:** B. Huard **HDR: yes x**
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**Program of the Master's degree in Biology:**

X Immunology, Microbiology, Infectious Diseases ☐ Structural Biology of Pathogens
☐ Physiology, Epigenetics, Differentiation, Cancer ☐ Neurosciences and Neurobiology

**Title of the project:**

**Targeting of antibody-producing plasma cells in autoimmune diseases**

Objectives (up to 3 lines):

This project aims at identifying tissue-specific targets at the surface of plasma cells infiltrating selected autoimmune tissues.

Abstract (up to 10 lines):

Treatments of autoimmune diseases are rapidly evolving, and new compounds targeting humoral immunity have recently successfully entered the field. However, there is still a complete lack of compounds targeting one of the main effector cells in autoimmunity, the antibody-producing plasma cells. The present project will aim at identifying targets at the surface of plasma cell infiltrating autoimmune tissues including joints (rheumatoid arthritis), thyroids (Hashimoto), livers (autoimmune hepatitis), salivary glands (Sjögren), and bowel (Crohn). Biopsy samples from autoimmune patients will be studied. It is expected to find environment/tissue specific post-translational modifications, which may conduct to disease specific depletion of autoimmune plasma cells.

Methods (up to 3 lines):

Immunohistochemistry
Flow cytometry
Cell culture/transfection

Up to 3 relevant publications of the team:

1-L.Baert, et al., A proliferation-inducing ligand-mediated anti-inflammatory response of astrocytes in multiple sclerosis, *Ann. Neurol.* 2019.

2-L. Baert e al., the number 13 of the family: a proliferation inducing ligand. Current Opinion in Immunology. 2021.

3-L. Baert et al., Differential pathways orchestrate plasma-cell infiltration in liver autoimmunity diseases. *Liver International.* 2025

Requested domains of expertise (up to 5 keywords):

Autoimmunity, antibodies, plasmocytes, inflammation