



NK CELLS IMMUNOMONITORING PLATFORM

Application

- NK cells immunomonitoring during anticancer treatments
- Immune reconstitution monitoring in patients with stem cells transplant
- Interferonopathies

Expertise

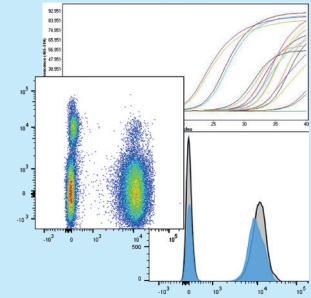
- NK cells function (in vitro stimulation)
- Cell surface, intranuclear and intracytoplasmic markers detection
- Blood, bone marrow and cultured cell samples processing
- Cryoconservation of primary cells
- Flow cytometry
- IFN (type I) signature by RT-QPCR
- Cytokine profiling

Equipment

- Navios (Beckman) 3 lasers
- LightCycler 480 (Roche)
- LSRFortessa™ X-20 (BD) 3 lasers
- Luminex (Bio-Rad)

From fundamental science to clinical trial, the **NK cells immunomonitoring platform** is specialized in the assessment of **human NK cell phenotypes and functionality** in the context of immune disorders such as cancer or viral infections.

Since its creation in 2011 by J. Bienvenu (Pharm D, PhD) and T. Walzer (PhD, Group Leader, CIRI Lyon) with LYric support, the platform has developed protocols based on frozen primary cells to improve reproducibility and to harmonize methods; making immunomonitoring more reliable over time.



Analyze a single cell in a heterogeneous sample : what is on, in, and made by the cell.

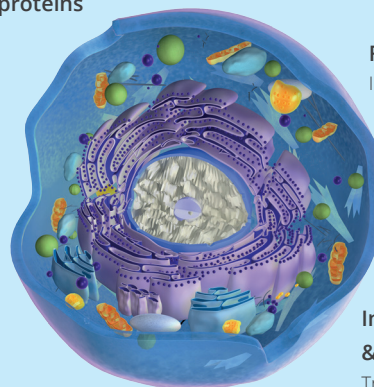


14 markers can be simultaneously monitored by flow cytometry using one of the validated fluorophore panels or with a custom made one.

Phospho-proteins

Cell surface

Lineage
Activation
Inhibition
Exhaustion
Cyto/chemokines Rc



RNA
IFN signature

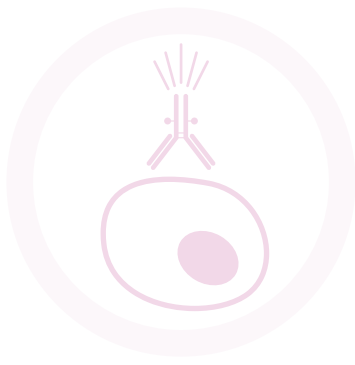
Intranuclear & intracytoplasmic
Transcription factors
Cytokines

Assessment of NK cell function (in vitro stimulation)

ADCC and natural cytotoxicity assays
Ab plate-bound stimulation
Perforin and CD107a testing



Centre International de Recherche en Infectiologie



Access details

- Basic science projects
- Translational projects
- Preclinical projects
- Human samples

D.I.Y.?

There is no free access to platform equipment.

Mention us in your publications!

To allow our platform to pursue its objectives, we need you to mention our work in your publications as follows:

Pateforme des cellules NK, Hospices Civils de Lyon, Centre hospitalier Lyon Sud, Lyon, France

Contacts

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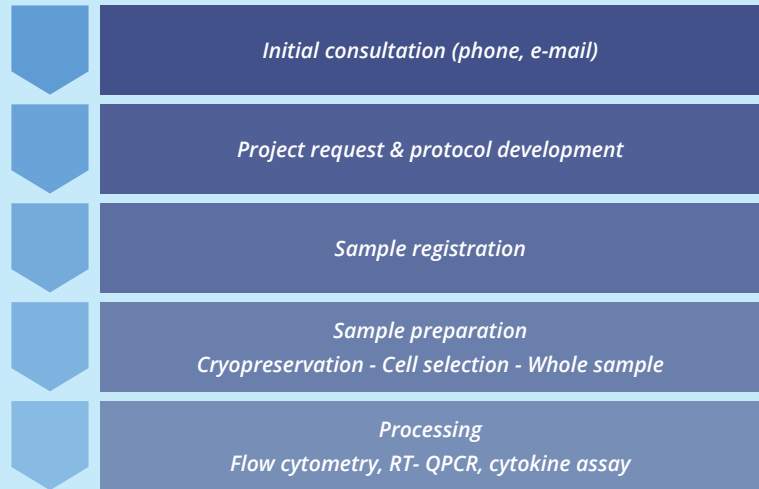
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Project workflow



Sébastien Viel

– PharmD, PhD

After being graduated as a pharmacist, he received his PhD in immunology from the University Claude Bernard Lyon 1 in 2016. He is specialized in human and murine NK cell biology in different context such as cancer or metabolism disorder.



Marine Villard

– PhD

She received her PhD in immunology from the University of Montpellier in 2013. She has acquired a solid experience in immunomonitoring in different context such as autoimmunity and cancer, especially by flow cytometry.



Laurie Besson

During her master degree (Ecole Pratiques des Hautes Etudes, 2016) she acquired a strong knowledge in immunomonitoring of NK cells by flow cytometry in the context of cancer and immune or metabolism disorders.

Submission form and more infos:

www.cancer-research-lyon.com