

# InnaSCo-FrontInov Joint symposium II

## Innate sensors & inflammation

2023, September 5<sup>th</sup>-7<sup>th</sup>

Lyon, France

### Program

InnaSCo symposium: September 5<sup>th</sup>-6<sup>th</sup>

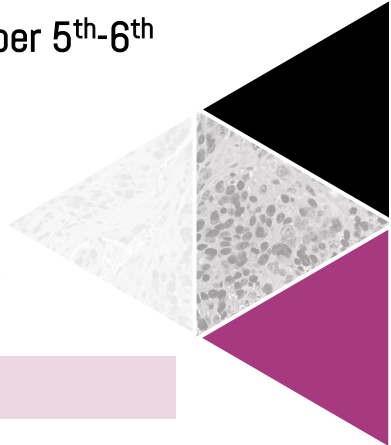
**Innate Sensors 2023**



FrontInov symposium: September 7<sup>th</sup>

**Precision medicine approaches to inflammatory pathologies:  
from AI driven discovery to model systems**





## Program

### September 5<sup>th</sup>

12h30-13h20 **Registration**

13h20-13h30 **Welcoming address**, Thomas Henry, CIRI, Lyon, Fr

#### SESSION 1: Inflammasomes (Chairs: Etienne Meunier, Bénédicte Py)

13h30-14h00 **Franklin Zhong**, Skin Research Institute, Singapore   
NLRP1 inflammasome

14h00-14h30 **Matthias Geyer**, Institute of Structural Biology, Bonn, Germany  
Selective Inhibition of NOD-like Receptors

14h30-14h45 **Flora Magnotti**, CIRI, Lyon, France  
Mutations in the B30.2 and the central helical scaffold domains of pyrin differentially affect inflammasome activation

14h45-15h00 **Zhang Zhirong**, IGBMC, Strasbourg, France  
Distinct changes in endosomal composition promote NLRP3 inflammasome activation

15h00-15h15 **Léana Gorse**, IPBS, Toulouse, France  
The NLRP1 inflammasome drives the necrotic and inflammatory responses to the emerging sea toxin Portimine

15h15-15h30 **Bénédicte Py**, CIRI, Lyon, France  
Functional diversity of NLRP3 gain-of-function mutants associated with CAPS autoinflammation

15h30-16h00 Coffee break

#### SESSION 2: Type I IFNs/Innate Sensors and Viral infections (Chairs: Marlene Dreux, Caroline Goujon)

16h00-16h30 **Karim Majzoub**, IGMM, Montpellier, France  
Deltavirus infection in human and animal cells

16h30-17h00 **Achille Broggi**, CIML, Marseille, France  
IFN- $\lambda$  control of mucosal repair

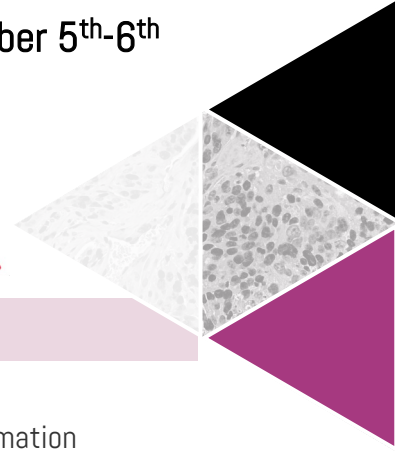
17h00-17h15 **Antoine Rebendenne**, IRIM, Montpellier, France  
SNX-BAR proteins 5 and 6 are required for NCOA7-AS antiviral activity against influenza A virus

17h15-17h30 **Hanane Chamma**, IGMM, Montpellier, France  
Regulation of cGAS-dependent inflammation by Mecp2

17h30-17h45 **Ella Hartenian**, Univ. Lausanne, Switzerland  
NINJ1 inhibits viral entry in a cell death-independent manner

17h45-17h55 **Poster Teaser #1**

17h55-19h55 POSTER SESSION 1 (Inflammasomes, Innate immunity & Cancer) Wine & Cheese



September 6<sup>th</sup>

8h30-Welcoming Coffee

**SESSION 3: Innate Sensors & bacterial infections (chairs: Laurent Boyer, Orane Visvikis)**

08h45-09h30 **Petr Broz**, UNIL, Epalinges, Switzerland

Pyroptosis, a Lytic Cell Death Coordinating Host Defense and Inflammation

09h30-10h00 **Cécile Arrieumerlou**, Cochin Institute, Paris, France

Spatio-temporal dynamics of ADP-heptose sensing during *S. flexneri* infection

10h00-10h15 **Cédric Torre**, Centre Scientifique de Monaco & C3M, Nice, France

CNF1 toxin-triggered trained immunity relies on NLRP3 inflammasome activation

10h15-10h30 **Stephen Leon Icaza**, IPBS, Toulouse, France


Airway organoids to confirm therapeutic approach targeting *Pseudomonas aeruginosa* LasB protease in cystic fibrosis patient

10h30-10h45 **Alexandra Boegli**, Univ. Lausanne-Switzerland

The NLRP6 inflammasome sensor senses the disruption of endolysosomal homeostasis

10h45-11h15: Coffee break

**SESSION 4: Innate Immune System & physiology (Chairs: Marie-Cécile Michallet, Thomas Henry)**

11h15-11h45 **Gerard Eberl**, Pasteur Institute Paris, France 

Modulation of hypothalamic functions by microbiota and cytokines

11h45-12h15 **François Leulier**, IGFL, Lyon, France

Microbe-mediated intestinal NOD2 stimulation improves growth of undernourished mice

12h15-12h45 **Nadine Laguette**, IGMM, Montpellier, France

Dissecting the crosstalk between type I interferon responses and DNA repair pathways

12h45-14h15: Lunch

**SESSION 5: Innate Immune System and Cancer (Chairs: Uzma Hasan, Virginie Pétrilli)**

14h15-14h45 **Tanaya Shree**, Stanford University, USA

Using innate immune agonists to achieve therapeutic cancer vaccination

14h45-15h15 **Stuart Rushworth**, Norwich Medical School, UK

Activating macrophage STING pathway in normal and malignant haematopoiesis

15h15-15h45 **Virginie Petrilli**, CRCL, Lyon, France

Non canonical function of NLRP3 in DNA damage response and repair

15h45-16h00 **Antoine Debiesse**, CRCL, Lyon, France

The oncogenic stress is the first immunogenic signal sensed by neutrophils during tumorigenesis

16h00:16h10 **Poster Teaser #2**

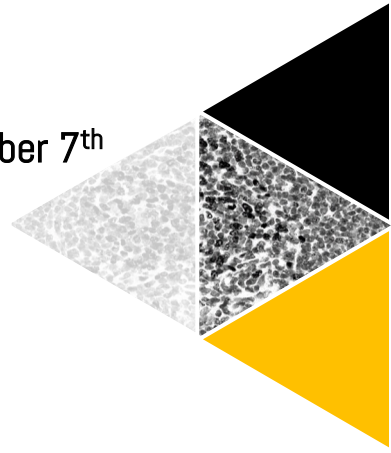
**16h10-18h10 POSTER SESSION 2 (Type I IFNs/Innate sensors & viral infections, innate sensors & bacterial infections, Innate immune system & physiology) With Drinks**

# Frontinov Symposium:

Precision medicine approaches to inflammatory pathologies:  
from AI driven discovery to model systems

2023, September 7<sup>th</sup>

## Program



## September 7<sup>th</sup>

8h30-Welcoming Coffee

### Introduction on the Frontinov Network

8h55-9h00 **Nadine Laguette – Petr Cigler**

### SESSION 6. Novel insight into Precision medicine

Chair: **Christelle Langevin – Dimitris Vlachakis**

09h00-9h45 **Steve Renshaw**, University of Sheffield, UK **KEYNOTE**

Inflammation made clear: zebrafish models of immune cell function.

9h45-10h15 **Anna Kajaste**, SR-Tiget, IT

Nucleic acid sensing and innate immunity in gene engineering

10h15-10h45 **Petr Cigler**, IOCB, CZ

Designing the interface of nanoparticles operating in biological environments

10h45-11h15 **Coffee break**

11h15-11h45 **Wojtek Cypryk**, CMMS, PL

Activation of extracellular vesicles secretion by the non-canonical inflammasome

11h45-12h30 **Sophie Ugolini**, CIML, FR

Neuronal regulation of immunity: new pathways and therapeutic perspectives

12h30-14h00: lunch + Poster session

### SESSION 7 Towards artificial wisdom: AI as a novel decision making partner.

Chair: **Nadine Laguette – Petr Cigler**

14h00-14h30 **Dimitrios Vlachakis**, AUA, GR

Extracellular vesicles, -omics and Inflammation; the paradigm of the study of milk exosomes

14h30-15h00 **Mickael Menager**, Institut Imagine, Paris, FR

Imagine the Medecine of the Future Now

15h00-15h30 **Samuel Bitoun**, Bicêtre hospital, FR

Using AI to diagnose and treat patients with auto-immune diseases

15h30-16h00 **Coffee break**

16h00-16h45 **Franck Augé, Sanofi**, FR **KEYNOTE**

AI/ML and Omics data for Precision Medicine

16h45-16h50 **Closing Address** -Nadine Laguette