Program

InnaSCo symposium: September 5th-6th
Innate Sensors 2023

FrontInov symposium: September 7th
Precision medicine approaches to inflammatory pathologies: from AI driven discovery to model systems
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-λ 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
### SESSION 3: Innate Sensors & bacterial infections (chairs: Laurent Boyer, Orane Visvikis)

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Institution</th>
<th>Topic</th>
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<tbody>
<tr>
<td>08h45-09h30</td>
<td>Petr Broz</td>
<td>UNIL, Epalinges, Switzerland</td>
<td>Pyroptosis, a Lytic Cell Death Coordinating Host Defense and Inflammation</td>
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<td>09h30-10h00</td>
<td>Cécile Arrieumerlou</td>
<td>Cochin Institute, Paris, France</td>
<td>Spatio-temporal dynamics of ADP-heptose sensing during <em>S. flexneri</em> infection</td>
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<tr>
<td>10h00-10h15</td>
<td>Cédric Torre</td>
<td>Centre Scientifique de Monaco &amp; C3M, Nice, France</td>
<td>CNF1 toxin-triggered trained immunity relies on NLRP3 inflammasome activation</td>
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<tr>
<td>10h15-10h30</td>
<td>Stephen Leon Icaza</td>
<td>IPBS, Toulouse, France</td>
<td>Airway organoids to confirm therapeutic approach targeting <em>Pseudomonas aeruginosa</em> LasB protease in cystic fibrosis patient</td>
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10h45-11h15: Coffee break

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

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<tbody>
<tr>
<td>11h15-11h45</td>
<td>Gerard Eberl</td>
<td>Pasteur Institute Paris, France</td>
<td>Modulation of hypothalamic functions by microbiota and cytokines</td>
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<tr>
<td>11h45-12h15</td>
<td>François Leulier</td>
<td>IGFL, Lyon, France</td>
<td>Microbe-mediated intestinal NOD2 stimulation improves growth of undernourished mice</td>
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<td>12h15-12h45</td>
<td>Nadine Laguette</td>
<td>IGMM, Montpellier, France</td>
<td>Dissecting the crosstalk between type I interferon responses and DNA repair pathways</td>
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12h45-14h15: Lunch

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

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<tr>
<td>14h15-14h45</td>
<td>Tanaya Shree</td>
<td>Stanford University, USA</td>
<td>Using innate immune agonists to achieve therapeutic cancer vaccination</td>
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<tr>
<td>14h45-15h15</td>
<td>Stuart Rushworth</td>
<td>Norwich Medical School, UK</td>
<td>Activating macrophage STING pathway in normal and malignant haematopoiesis</td>
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<tr>
<td>15h15-15h45</td>
<td>Virginie Pétrilli</td>
<td>CRCL, Lyon, France</td>
<td>Non canonical function of NLRP3 in DNA damage response and repair</td>
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<tr>
<td>15h45-16h00</td>
<td>Antoine Debiesse</td>
<td>CRCL, Lyon, France</td>
<td>The oncogenic stress is the first immunogenic signal sensed by neutrophils during tumorigenesis</td>
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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 7th

Program

September 7th
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  Mickaël 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