



# Laboratory of Molecular PhysioMedicine

## 6 Teams

Transport and Metabolism

Ion Channels and Biomineralization

Osteoimmunology

Innovative approaches in Transplantation

Immunometabolism

->Coming soon

International Biology group



LIFE AND  
HEALTH SCIENCES  
GRADUATE SCHOOL AND RESEARCH



UNIVERSITÉ  
CÔTE D'AZUR



**6 teams and >50 persons in 2024**

## Direction committee

Maxim Artyomov, Saïd Bendahhou, Claudine Blin-Wakkach, Laurent Counillon, Stoyan Ivanov, Antoine Sicard, Noëlle Viard

### Team 1

#### TRANSPORT AND METABOLISM (Director: L. Counillon)

Marc Cougnon, MCU UCA  
Laurent Counillon, PR HC UCA  
Didier Pisani, CRCN CNRS  
Mallorie Poët, CRCN CNRS  
Emmanuel Van Obberghen, PU-PH  
Gisèle Jarretou, IE CNRS  
Denis Doyen, MD-PhD  
Romain Carcy PhD student  
Hajar Ouahmi, PhD Student FRM  
(co-supervised Team 4)  
1 ANR Post doc to be recruited  
1 ANR PhD student to be recruited

### Team 2

#### ION CHANNELS AND BIOMINERALIZATION (Director: S. Bendahhou)

Jacques Barhanin, DRCE CNRS  
Saïd Bendahhou, DR2 CNRS  
Christophe Duranton, DR2 CNRS  
George Leftheriotis, PU-PH  
Isabelle Rubera, CRCN CNRS  
Laëtitia Clotaire, PhD student Cifre  
Mete Kayatekin, PhD student Labex  
1 ANR Technician to be recruited  
1 ANR PhD to be recruited

### Team 3

#### OSTEOIMMUNOLOGY, NICHES AND INFLAMMATION (Director: C. Blin-Wakkach)

Julie Bernardor, MCU-PH  
Claudine Blin-Wakkach, DR2 Inserm  
Matthieu Rouleau, CRCN Inserm  
Abdelilah Wakkach, DR2 CNRS  
Adrien Mahler, IE CDD ANR  
Maria Materozzi, postdoc ERANet  
Julia Halper, PhDUCA  
Ghada Beldi, PhD student ANR  
Valeriia Rezapova, PhD student UCA  
(co-supervised Team 6)  
Camille Girolet PhD student

### Team 4 (ATIP-Avenir)

#### INNOVATIVE MOLECULAR AND CELLULAR THERAPIES IN NEPHROLOGY AND TRANSPLANTATION (Director: A. Sicard)

Antoine Sicard, PH (Nice CHU)  
Filippo Massa, Postdoc CNRS  
Scarlette Cassal, AI CDD CNRS  
Alexis Charbinat, IE CDD CHU  
Marion Cremoni, PhD student  
Alexandre Gerard, PhD student  
Hajar Ouahmi, PhD Student FRM  
(co-supervised Team 1)

### Team 5

#### IMMUNOMETABOLISM (Director: S. Ivanov)

Stoyan Ivanov (CRCN INSERM)  
Adeline Bertola, CRCN INSERM  
Rodolphe Guinamard, CRCN CNRS  
Zakarya Caillot, AI CDD  
Bastien Dolfi, PhD student UCA  
Fairouz Zair, PhD student ANR  
Alexandre Gallerand Post Doc IDEX  
Alexia Castiglione AI ANR

## (Associated International Laboratory with Washington University, USA)

### COMPUTATIONAL SYSTEMS IMMUNOLOGY GROUP

(Director Maxim Artyomov)

Maxim Artyomov (Associate Prof.); Valeriia Rezapova, PhD student UCA (co-supervised Team 3)

### Functional Team (Responsible: Noëlle Viard)

Administrative officer: Noëlle Viard, AI CNRS  
Accounting: To be recruited, BIATTS UCA  
Animal care: Majlinda Topi, TCN CNRS  
Prevention & Safety (AP) : Gisèle Jarretou, IE CNRS  
Purchasing: Didier Pisani, CRCN CNRS  
Washing & Sterilization: Jean-Bernard Lévêque, ATRF CNRS

### Common Services

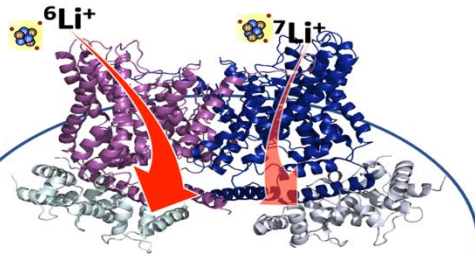
Cell culture: Matthieu Rouleau, CRCN Inserm  
Communication: Claudine Blin-Wakkach, DR2 Inserm  
Computer safety: Saïd Bendahhou, DR2 CNRS  
Training: Noëlle Viard, AI CNRS  
Valorization: Mallorie Poët, CRCN CNRS

# Main Achievements during the Previous Contract

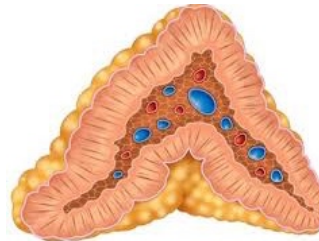
**Total workforce from 27 in 2018 to 45 in 2022 and Growing**  
**Funding from ~600 k€/year by 2018 to > 3M€ in 2022 and Growing**

**3 to 6 teams including 1 ATIP/Avenir team led by a clinician**

## Some of our Important discoveries



**Membrane proteins fractionate isotopes that differ by one neutron (iScience 2023)**



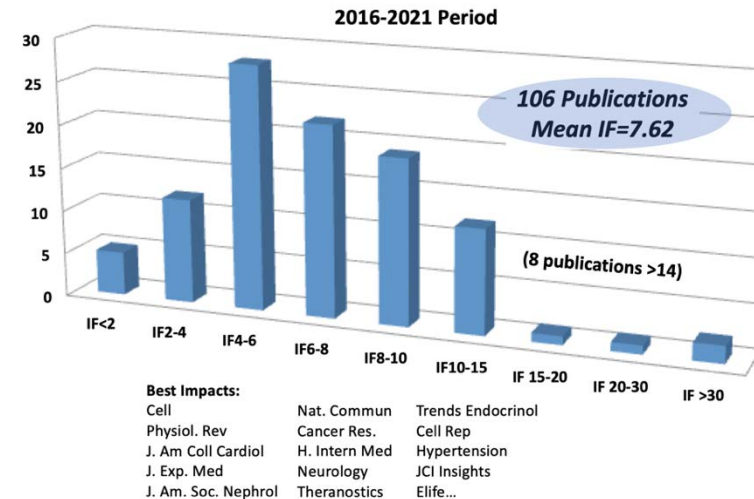
**Macrophage sex dimorphism in Adrenal gland (Cell Rep. 2022)**



**COVID vaccination in transplanted patients (Ebiomedicine Lancet 2022)**



**Specific targeting of inflammatory osteoclastogenesis reduces bone loss in osteoporosis (elife 2023)**



- **Establish our Computational international Group (at present a world leader in the field based in USA) as a strong and Durable team in LP2M and UNiCA**
- **Continue to increase our ratio of high impact studies and publications with more high risk high benefit progress**
- **Increase our international funding (ERC and others)**
- **Recruit permanent researchers and technicians.**
- **Keep the Unit within a human size to maximize the interactivity (70-80 persons max)**
- **We need to solve a critical space issue but this is in progress**