

Symposium Institut Cochin “Muscle, Exercise and Health”

November 14 & 15, 2024

Amphi Luton, UFR Médecine Cochin  
24, rue du Fg St-Jacques, Paris

**Thursday, November 14<sup>th</sup>**

- 13:00-13:15 Welcome. **Florence Niedergang** (director of Institut Cochin, Paris, France),  
**Florian Britto, Pascal Maire, Benoit Viollet** (organizers)

**Session 1 - Inter-cellular and inter-organ communications in physiopathology**

*Chaired by Catherine Postic, Thierry Launay, Iryna Pirozhkova*

- 13:15-14:00 **Keynote: Bente Pedersen** (University of Copenhagen, Denmark)  
*Exercise as medicine: focus on myokines*
- 14:00-14:30 **Jennifer Arrondeau** (ENMC, UMR 8251, Paris, France)  
*Effect of physical activity on glucose uptake by cancer tumors: “MUSCULOPET study”*
- 14:30-15:00 **Jacob Smith** (University of Barcelona, Spain)  
*Circadian rhythms in muscle-liver crosstalk*
- 15:00-15:30 **Benedicte Chazaud** (INMG, Lyon, France)  
*The regenerative niche for skeletal muscle regeneration after exercise-induced muscle injury*

Break

**Session 2 - From pluripotent stem cells to skeletal muscle adaptation limits**

*Chaired by Athanassia Sotiropoulos, Glenda Comai, Pascal Maire*

- 16:15-17:00 **Keynote: Olivier Pourquié** (Harvard Medical School, USA)  
*Deconstructing human skeletal muscle development in vitro*
- 17:00-17:30 **François Goldwasser** (Hôpital Cochin & Institut Cochin, Paris, France)  
*Host metabolism and antitumour immunotherapy*
- 17:30-18:00 **Angèle Merlet** (Université Saint Etienne, France)  
*Exercise therapy: what effect on physical fitness and skeletal muscle tissue? Example of sickle cell disease and perspectives in other pathologies*
- 18:00-18:30 **Christophe Handschin** (Biozentrum, University of Basel, Switzerland)  
*The multicellular mechanistic underpinnings of exercise adaptation in skeletal muscle*

- 18:30-18:50 Meeting with Olympic athletes

- 19:00-20:30 Cocktail/diner - Cloître Port-Royal

## Friday, November, 15<sup>th</sup>

### Session 3 - Muscle activity, neuromuscular diseases and therapy

Chaired by Anne Houdusse, Isabelle Richard, Benoit Viollet

- 09:00-09:45 **Keynote: Helen Blau** (Baxter Laboratory for Stem Cell Biology, Stanford University School of Medicine, US)  
*Forget the exercise, take a pill*
- 09:45-10:15 **Serge Braun** (AFM-Téléthon, EVRY, France)  
*Gene therapy of neuromuscular diseases and potential impact of muscle exercise on therapeutic efficacy*
- 10:15-10:45 **Olivier Biondi** (Université Evry Paris Saclay, France)  
*Precision exercise in neuromuscular disorders: disease-specific adaptations on mouse models*

Break

### Session 4 - Muscle activity, neuromuscular diseases, and aging

Chaired by Delphine Duprez, Frédéric Relaix, Sabrina Pichon

- 11:15-11:45 **Patricia Thoreux** (CIMS, Hôpital Hôtel Dieu – HUPC, Paris, France) and **Pascal Laforet** (Paris Saclay University, France)  
*Neuromuscular diseases and physical activity: what to think about in 2024*
- 11:45-12:15 **Laurent Schaeffer** (INMG, Lyon, France)  
*Chromatin, DNA repair and muscle aging*
- 12:15-12:45 **Jerome Feige** (Nestlé Institute of Health Sciences S.A., Lausanne, Switzerland)  
*Mitochondrial Calcium Import Regulates Performance and Aging of Skeletal Muscle*
- 12:45-13:15 **Florian Britto** (Institut Cochin, Paris, France)  
*Influence of myofibers typology and metabolism on muscle hypertrophy*

Lunch - Cloitre Port-Royal

### Session 5 - Myofiber diversity, metabolism and physiopathology

Chaired by Capucine Trollet, Helge Amthor, Frédéric Bouillaud

- 14:45-15:30 **Keynote: Marco Sandri** (VIMM, University of Padua, Italy)  
*Novel insights linking mitochondria, bioenergetics, DNA damage and inflammation with sedentary life*
- 15:30-16:00 **Julien Ochala** (University of Copenhagen, Copenhagen, Denmark)  
*Linking myosin to muscle metabolism*
- 16:00-16:30 **Kristian Gundersen** (Institutt for Biovitenskap, Universitetet i Oslo, Norway)  
*What determines muscle fiber size?*
- 16:30-17:00 **Jean-François Toussaint** (IRMES, URP 7329, INSEP, Paris, France)  
*Olympism & paralympism: research, limits & development*
- 18:00-19:00 Conférence grand public / General public lecture. **Irène Margaritis** (ANSES)