

Saturday, September 20th

15:00 – 16:00 – Registration and check-in

16:00 – 17:00 – Keynote Lecture – Prof. Dr. Leslie Leinwand (University of Colorado Boulder) – "Translating python biology to mammals: novel therapeutic targets"

17:00 – 19:00 – Social: Networking and Drinks

Sunday, September 21st

09:00 - 10:30 - Session 1. Muscle structure

Chair: Kristina Djinovic

09:00 – 09:30: Jorge Allegre Cebollada (National Institute for Cardiovascular Research, Spain) - "Tuq-of-war gone wrong: unexpected tissue responses to titin unloading"

09:30 – 09:45: Selected from abstracts

09:45 - 10:00: Selected from abstracts

10:00 – 10:30: Anthony Hessel (University of Münster, Germany) - "The opportunities and pain points of using near-instant controllable phenotypes to study muscle structure function relationships"

10:30 - 11:00 - Coffee Break

11:00 – 12:30 – Session 2. Molecular mechanisms of muscle plasticity

Chair: Tyler Kirby

11:00 – 11:30: John McCarthy (University of Kentucky, USA) – "microRNA-1 Regulates Skeletal Muscle Metabolic Flexibility via Pyruvate Metabolism"

11:30 – 11:45: Selected from abstracts

11:45 - 12:00: Selected from abstracts

12:00 – 12:30: Regula Furrer (Biozentrum, University of Basel, Switzerland) – "Molecular control of endurance training adaptation"

12:30 - 14:00 - Lunch and Posters (Sessions 1-4)



14:00 – 15:30 – Session 3. Excitation-contraction coupling

Chair: Alain Lacampagne

14:00 – 14:30: Isabelle Marty (INSERM, France) "From pathophysiological mechanism to therapeutic development in RYR1-related disease"

14:30 – 14:45: Selected from abstracts 14:45 – 15:00: Selected from abstracts

15:00 - 15:30: TBD

15:30 - 16:00 - Coffee Break

16:00 - 17:30 - Session 4. Data Science in Muscle: from -omics to Physiology

Chair: Rob Wüst

16:00 – 16:30: Fabien Le Grand (NeuroMyoGène Institute, France) – "Skeletal muscle in development, health and disease at the single nuclei resolution"

16:30 – 16:45: Selected from abstracts 16:45 – 17:00: Selected from abstracts

17:00 – 17:30: Thibaux Van der Stede (Universiteit Gent, Belgium) – "A multicellular perspective on exercise-induced plasticity of human skeletal muscle"

Monday, September 22nd

9:00 – 10:30 - Session 5. Innovations in human disease models

Chair: Michael Regnier

09:00 – 09:30: Theresia Kraft (Hannover Medical School, Germany) - "Patient-derived induced pluripotent stem cell cardiomyocytes and organoids as models for molecular mechanisms of early-stage Hypertrophic Cardiomyopathy"

09:30 - 09:45: Selected from abstracts

09:45 – 10:00: Selected from abstracts

10:00 – 10:30: Manuel Pioner (University of Florence, Italy) - "The Role of Cardiac Extracellular matrix - Cell interaction in the onset of dystrophic cardiomyopathies"

10:30 - 11:00 - Coffee Break



11:00 - 12:30 - Session 6. Muscle energetics

Chair: Josine de Winter

11:00 - 11:30: TBD

11:30 – 11:45: Selected from abstracts 11:45 – 12:00: Selected from abstracts

12:00 – 12:30: Leonardo Nogara (University of Padova, Italy) - "TBD"

12:30 - 14:00 - Lunch and Posters (Sessions 5-8)

<u>14:00 – 15:30 – Session 7. Cytoskeleton</u>

Chair: Elisabeth Ehler

- **14:00 14:23: Carol Gregorio (Mount Sinai, USA) –** "Redefining actin dynamics of the pointed end complex in health and myopathy"
- 14:24 14:47: Thomas Iskratsch (Queen Mary University of London, UK) "Mechanosensitive biochemical imprinting of the talin interaction with DLC1 regulates RhoA activity and cardiomyocyte remodelling"

14:47 – 15:57: Selected from abstracts

14:57 - 15:07: Selected from abstracts

15:07 – 15:30: Dieter Fürst (University of Bonn, Germany) – "From mechanosensation to myofibril repair: the regulation of filamin C by phosphorylation"

15:30 - 16:00 - Coffee Break

16:00 – 17:30 – Session 8. Respiratory muscle mechanics in NMD

Chair: Coen Ottenheijm

16:00 – 16:30: Jonne Doorduin (Radboud UMC, Netherlands) – "Diaphragm Dysfunction in Critical Illness"

16:30 – 16:45: Selected from abstracts

16:45 – 17:00: Selected from abstracts

17:00 – 17:30: Leo Ferreira (Duke University School of Medicine, USA) – "Diaphragm myopathy in heart failure with reduced ejection fraction"

18:00 – 19:30 – Canal Boat Tour (separate registration required)



Tuesday, September 23rd

08:30 – 10:00 – Session 9. Regulation of contraction by thick and thin filaments

Chair: Elisabetta Brunello

08:30 – 09:00: Vitold Galkin (Eastern Virginia Medical School, USA) - "The role of allosteric interactions in regulation of cardiac thin filament revealed by the troponin T pathogenic variant Ile79Asn"

09:00 - 09:15: Selected from abstracts

09:15 - 09:30: Selected from abstracts

09:30 – 10:00: Marco Linari (University of Florence, Italy) - "Activation of cardiac myosin filament during systole with different afterloads"

10:00 - 10:30 - ESMR Meeting

10:30 - 11:00 - Coffee break

11:00 - 12:30 - Session 10. Targeting the nucleus

Chair: Diederik Kuster

11:00 – 11:30: Claudia Crocini (Charité Berlin, Germany) – "Impact of Titin N2B Deletion on the nucleus of hiPSC-Derived Cardiomyocytes"

11:30 - 11:45: Selected from abstracts

11:45 - 12:00: Selected from abstracts

12:00 – 12:30: Matthew Stroud (King's College London, UK) – "The pleiotropic nuclear envelope and its role in striated muscle development, ageing, and disease"

12:30 – 14:00 – Lunch and Posters (Sessions 5-8)

14:00 - 15:30 - Session 11. Cardiomyopathies

Chair: Wolfgang Linke

14:00 – 14:30: Mathias Gautel (King's College London, UK) – "Thick-filament cardiomyopathies one mechanism or thousands?"

14:30 - 14:45: Selected from abstracts



14:45 – 15:00: Selected from abstracts

15:00 – 15:30: Natalie Weber (Hannover Medical School, Germany) – "Human induced pluripotent stem cell-derived cardiomyocytes integration and maturation on human living myocardial slices."

15:30 - 16:00 - Coffee Break

<u>16:00 – 17:00 – Jean Hanson Lecture: Jolanda van der Velden (Amsterdam</u> University Medical Centers) – "Title"

18:30 – 0:00 – Social Event: Conference Dinner and Party (separate registration required)

Wednesday, September 24th

9:00 - 10:30 - Session 12. Muscle modeling

Chair: Neil Kad

09:00 – 09:30: Sam Walcott (Worcester Polytechnic Institute, USA) – "Successes and challenges In using mathematical modeling to bridge scales in muscle contraction"

09:30 - 09:45: Selected from abstracts

09:45 - 10:00: Selected from abstracts

10:00 – 10:30: Joost Lumens (Maastricht University, Netherlands) – "Computational Cardiology: linking sarcomere function to cardiovascular system dynamics"

10:30 - 11:00 - Coffee Break

11:00 – 12:30 – Session 13. Skeletal myopathies

Chair: Coen Ottenheijm

11:00 – 11:30: Kati Kontrogianni-Konstantopoulos (University of Maryland, USA) – "Exploring the expanding Myotrem myopathy: what we know...much to learn"

11:30 – 11:45: Selected from abstracts

11:45 - 12:00: Selected from abstracts

12:00 – 12:30: Sandra de Haan (Leiden UMC, Netherlands) – "High-Resolution Spatial
Transcriptomics Reveals Myofiber-Immune Cell Interactions in Inclusion Body
Myositis"

12:30 – 13:00 – Awards ceremony and closing remarks