

Frontiers in Myogenesis Meeting
“Skeletal muscle: development, regeneration and disease”

Conference Organizers: Alessandra Sacco, Fabio Rossi, Peter Zammit

September 23-28 2019

Costa Rica Marriott Hotel Hacienda Belen, San José, Costa Rica

PRELIMINARY PROGRAM

All listed speakers have confirmed their participation.

Monday, September 23 – DAY 1

2-6pm Meeting registration

3pm- Housing check-in

6:00pm-7:00pm Dinner

7:30-8:40pm Opening Keynote Address

7:30-7:40pm **Welcome Introduction** – Conference Organizers Alessandra Sacco, Fabio Rossi, and Pete Zammit

7:40pm-8:40pm *** **THE EMBO LECTURE*****

Pura Muñoz-Cánoves, Pompeu Fabra University (UPF), Barcelona, Spain
“Muscle stem cell aging and rejuvenating strategies”

8:40pm-10:00pm Opening Reception

Tuesday, September 24 – DAY 2

7:00am-8:30am Breakfast

8:30am-10:00am SESSION 1 – Mechanisms of skeletal muscle development

8:30am-9:00am **Peter Currie**, Monash University, Melbourne, Australia
“Defining the in vivo dynamics of muscle stem and progenitor cell action during growth and injury”

9:00am-9:30am **Gabrielle Kardon**, University of Utah
“Inspired by the diaphragm: development of the diaphragm and congenital diaphragmatic hernias”

9:30am-9:45am Speaker selected from abstract 1

9:45am-10:00am Speaker selected from abstract 2

10:00am-10:30am Coffee Break

10:30am-12:00pm SESSION 2 – Mechanisms of myoblast fusion and nuclear positioning

10:30am-11:00am **Elizabeth Chen**, UT Southwestern Medical Center
“Mechanisms of myoblast fusion”

11:00am-11:30am **Edgar Gomes**, University of Lisbon, Portugal
“Positioning the nucleus for muscle function”

11:30am-11:45am Speaker selected from abstract 3

11:45am-12:00pm Speaker selected from abstract 4

12:00pm-1:30pm Lunch and Meet the Speakers

1:30pm- 5:30pm SESSION 3 – Muscle stem cell regulation

1:30pm-2:00pm **Helen Blau**, Stanford University

“Challenges facing muscle stem cell therapy” or “Regulating muscle regeneration : no pain, no gain!”

2:00pm-2:30pm **Tom Cheung**, The Hong Kong University of Science and Technology, Hong Kong, China

“Differential mRNA processing during muscle stem cell activation”

2:30pm-3:00pm **Colin Crist**, McGill University, Montreal, Canada

“Regulation of Satellite Cell Quiescence and Self-Renewal by Selective mRNA Translation”

3:00pm-3:15pm **Hugo Olguin**, Pontifical Catholic University of Chile, Santiago, Chile

“Looking under the hood of satellite cell fate control: mechanisms underlying the interplay between ubiquitin ligase Nedd4 and deubiquitinase USP7 in muscle progenitors”

3:15pm-3:30pm Speaker selected from abstracts 6

3:30pm-4:00pm Coffee Break

4:00pm-4:30pm **Andrew Brack**, University of California, San Francisco (UCSF)

“Muscle stem cell heterogeneity”

4:30pm-5:00pm **Frédéric Relaix**, INSERM, Paris, France

“Regulation of muscle stem cell quiescence and activation”

5:00pm-5:15pm Speaker selected from abstracts 7

5:15pm-5:30pm Speaker selected from abstracts 8

5:30pm-6:00pm POSTER BLITZ

6:00pm-7:30pm Dinner

7:30pm-10:00pm POSTER SESSION 1

7:30pm-8:45pm Odd numbers

8:45pm-10:00pm Even numbers

Wednesday, September 25 – DAY 3

7:00am-8:30am Breakfast

8:30am-10:00am SESSION 4 – Signaling pathways in muscle stem cell fate decisions

8:30am-9:00am **Carmen Birchmeier**, Max Delbrueck Center for Molecular Medicine in the Helmholtz Association, Berlin, Germany

“Oscillatory expression of Hes1 and MyoD allow activated satellite cells to maintain an undifferentiated state”

9:00am-9:30am **Yusuke Ono**, Kumamoto University, Japan

“Roles of Notch signaling in regulating muscle mass and regeneration”

9:30am-9:45am Speaker selected from abstract 9

9:45am-10:15am Coffee Break

10:15am-12:00pm SESSION 5 – Epigenetic control of muscle stem cells

10:15am-10:45am **Stephen Tapscott**, Fred Hutchinson Cancer Research Center

“Gene transcription in skeletal muscle development and disease”

10:45am-11:15am **Jeff Dilworth**, University of Ottawa, Ottawa, Canada
"Transcriptional control of satellite cell niche repopulation"

11:15am-11:45pm **Thomas Braun**, Max-Planck-Institute for Heart and Lung Research, Bad Nauheim, Germany
"Epigenetic regulation of programmed cell death in muscle stem cells during tissue regeneration"

11:45am-12:15am **Pier Lorenzo Puri**, Sanford Burnham Prebys Medical Discovery Institute
"Control of gene expression in skeletal muscle by high-order chromatin interactions"

12:15pm-1:30pm Lunch and Meet the Experts

1:30pm- 3:30pm SESSION 6 – Induced pluripotent stem cells to generate myogenic progenitors

1:30pm-2:00pm **Rita Perlingeiro**, University of Minnesota
"Unraveling the molecular signature of pluripotent stem cell-derived myogenic progenitors upon transplantation"

2:00pm-2:30pm **Olivier Pourquie**, Harvard Medical School
"In vitro modeling of human muscle development and disease"

2:30pm-3:00pm **Radbod Darabi**, University of Texas Health Science Center at Houston
"Reporter hESCs for PAX7 and MYF5 provide valuable insights into myogenic differentiation of hPSCs as well as transcriptional regulation of skeletal myogenesis"

3:00pm-3:15pm Speaker selected from abstract 10

3:15pm-3:30pm Speaker selected from abstracts 11

3:30pm-4:00pm Coffee Break

4:00pm-5:30pm SESSION 7– Bioengineering approaches for skeletal muscle modeling

4:00pm-4:30pm **Francesco Saverio Tedesco**, University College London, UK
"Human iPS Cell-Derived Artificial Skeletal Muscles for Complex Disease Modeling of Muscular Dystrophies"

4:30pm-5:00pm **Penney Gilbert**, University of Toronto, Canada
"3D models to study human skeletal muscle endogenous repair in a dish"

5:00pm-5:15pm Speaker selected from abstracts 12

5:15pm-5:30pm Speaker selected from abstracts 13

5:30pm-6:00pm **POSTER BLITZ**

6:00pm-7:30pm Dinner

7:30pm-10:00pm POSTER SESSION 2

7:30pm-8:45pm Odd numbers

8:45pm-10:00pm Even numbers

Thursday, September 26 – DAY 4

7:00am-8:30am Breakfast

8:30pm-2:30pm FREE TIME- Activities on your own, or group tour

12:00pm-1:30pm Lunch and Meet the Experts

2:30am-6:00pm SESSION 8 – Role of the microenvironment in skeletal muscle repair and disease

2:30pm-3:00pm **David Goldhamer**, University of Connecticut Stem Cell Institute
"FAPs and heterotopic ossification of muscle"

3:00pm-3:30pm **Benedicte Chazaud**, Institut NeuroMyoGène, Université Claude Bernard Lyon 1, INSERM, Lyon, France
"Molecular control of late of myogenesis by macrophages"

3:30pm-3:45pm Speaker selected from abstract 14

3:45pm-4:00pm Speaker selected from abstract 15

4:00pm-4:30pm **Coffee Break**

4:30pm-5:00pm **Clarissa Henry**, University of Maine
"Roles for glycosylation in modulating ECM during neuromuscular development and homeostasis"

5:00pm-5:15pm Speaker selected from abstract 16

5:15pm-5:30pm Speaker selected from abstract 17

5:30pm-6:00pm **POSTER BLITZ**

6:00pm-7:30pm Dinner

7:30pm-10:00pm POSTER SESSION 3

7:30pm-8:45pm Odd numbers

8:45pm-10:00pm Even numbers

Friday, September 27 – DAY 5

7:00am-8:30am Breakfast

8:30am-3:30pm SESSION 9 – Muscle diseases and therapy

8:30am-9:00am **Eric Olson**, University of Texas Southwestern Medical Center
"TBD"

9:00am-9:30am **Elizabeth McNally**, Northwestern University Feinberg School of Medicine
"Modifiers of muscular dystrophy"

9:30am-9:45am Speaker selected from abstract 18

9:45am-10:00am Speaker selected from abstract 19

10:00am-10:30am **Coffee Break**

10:30am-11:00am **Dongsheng Duan**, University of Missouri
"AAV gene therapy for Duchenne muscular dystrophy"

11:00am-11:30am **Pascal Bernatchez**, University of British Columbia, Vancouver, Canada
"The humanization of rodent muscular dystrophy: are plasma lipids part of the problem?"

11:30am-11:45am Speaker selected from abstract 20

11:45am-12:00pm Speaker selected from abstract 21

12:00pm-1:30pm Lunch and Meet the Experts

1:30pm-2:00pm **Foteini Mourkioti**, Perelman School of Medicine, University of Pennsylvania
"Telomere length regulation of muscle stem cells in chronic injuries"

2:00pm-2:30pm **Michael Kyba**, University of Minnesota
"Pathological mechanisms in FSHD"

2:30pm-2:45pm **Maximiliano D'Angelo**, Sanford Burnham Prebys Medical Discovery Institute
"Nuclear pore complexes in the regulation of muscle homeostasis"

2:45pm-3:00pm Speaker selected from abstract 23

3:00pm-3:30pm Coffee Break

3:30pm-5:00pm SESSION 10 – Muscle-related cancers

3:30pm-4:00pm **Janet Shipley**, The Institute of Cancer Research, Surrey, UK
"EZH2 and potential for differentiation therapy of rhabdomyosarcomas"

4:00pm-4:30pm **Joe Chakkalakal**, University of Rochester Medical Center
"Satellite cell contributions to pediatric skeletal muscle growth and cancer survivorship"

4:30pm-4:45pm Speaker selected from abstracts 24

4:45pm-5:00pm Speaker selected from abstracts 25

5:00pm-5:30pm **Closing remarks**

5:30pm-5:45pm **PRIZES FOR BEST POSTERS**

7:00pm-9:00pm **Closing Banquet**

Saturday, September 28

Departure