



fondation suisse de recherche sur les maladies musculaires
fondazione svizzera per la ricerca sulle malattie muscolari
schweiz. stiftung für die erforschung der muskelkrankheiten

10th Swiss Meeting on Muscle Research

Macolin / Magglingen

9th – 11th November 2014



Vesalius (1514-64)

Organizer: Prof. Markus A. Rüegg, Biozentrum, University of Basel

Sunday, November 9th

16:00-17:30 Arrival, Check-in

17:30-18:30 Welcome Aperero

18:30-20:00 Dinner

20:00-20:10 Meeting opening (Markus A. Rüegg)

20:10-20:40 Rare conditions and global thinking - the impact of international networking

Special guest: Marita Pohlschmidt, Muscular Dystrophy Campaign, UK

Session 1: New targets for DMD and SMA

Chair: Markus A. Rüegg

20:40-21:10 Structural and functional investigations reveal promising targets to cure Spinal Muscular Atrophy

Antoine Clery, ETH Zürich

21:10-21:40 Enhancing estrogenic signalling to fight muscular dystrophies: Mechanisms of action and repurposing clinically approved drugs

Olivier Dorchies, University of Geneva

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Monday, November 10th

Session 1: Muscle regeneration and plasticity

Chair: Denis Monard

- 8:20-8:50 Key role of Epidermal Growth Factor Receptor during human primary myoblast differentiation
Julie Perroud, University of Geneva
- 8:50-9:20 Characterization of the trafficking and functional properties of the muscle specific long STIM1 isoform
Sophie Saüc, University of Geneva
- 9:20-9:50 The regulation of skeletal muscle cell plasticity by PGC-1alpha in health and disease
Christoph Handschin, Biozentrum, Basel
- 9:50-10:20 Identification of new regulators of muscle size and ageing
Lionel Tintignac, University of Basel

10:20-10:40 Coffee break

Session 2: Cell therapy

Chair: Urs Rüegg

- 10:40-11:00 Improving cellular therapies of muscle dystrophies by uncovering epigenetic and signaling pathways of muscle formation
Peter Meister, University of Bern
- 11:00-11:30 Muscle gene transfer mediated by mesoangioblasts and non-viral vector systems
Pavitra Iyer, University of Lausanne
- 11:30-12:00 VEGF gene transfer enhances human muscle derived stem cells survival after transplantation in injured skeletal muscles
Thomas Laumonier, University Hospital, Geneva

12:00-13:10 Lunch

Poster session 1

- 13:15-15:30 POSTERS Nr. 1-21

Session 3: Work with patients

Chair: Laurent Bernheim

- 15:30-16:00 Efficacy of idebenone on respiratory outcome in DMD patients not using glucocorticoid steroids: Results of a phase III double-blind, randomised, placebo-controlled multicenter trial
Thomas Meier, Santhera Pharmaceuticals, Liestal
- 16:00-16:30 L-citrulline and metformin trials in Duchenne and Becker muscular dystrophy
Dirk Fischer, University Hospital Basel
- 16:30-16:50 Participation of Swiss patients in the large multinational trials
Andrea Klein, Kinderspital Zürich

16:50-17:20 Muscle velocity recovery cycles: as indicators of resting membrane potential
Werner Z'Graggen, University Hospital Bern

17:20-17:40 Coffee Break

Session 4: New targets for ALS and LGMD2B

Chair: Nicolas Mermod

17:40-18:10 Marinesco-Sjögren syndrome protein SIL1 modulates motoneuron vulnerability to ER stress and degeneration in ALS
Smita Saxena, University of Bern

18:10-18:40 Translational treatment approaches for muscular dystrophies
Michael Sinnreich, Pharmazentrum, Basel

18.40-20.00 Dinner

Poster session 2

20:00-22:00 POSTERS Nr. 22-34

Tuesday, November 11th

Session 1: New pathways in muscle pathology (1)

Chair: Matthias Chiquet

8:30-9:00 Skeletal muscle mTORC1 activation alters global metabolism
Maitea Guridi, Biozentrum, Basel

9:00-9:30 Acetylation controls beta1A integrin localization and function
Birgit Kastberger, University of Geneva

9:30-10:00 Cardiac sodium channel NaV1.5 distribution in myocytes via interacting proteins: the multiple pool model
Ludovic Gillet, University of Bern

10:00-10:30 Coffee Break

Session 2: New pathways in muscle pathology (2)

Chair: Francesco Zorzato

10:30-11:00 Slow muscle fibers gradually die by apoptosis in FgfrL1-deficient mice
Beat Trueb, University of Bern

11:00-11:30 Enhanced glucose uptake in skeletal muscle of transgenic mice overexpressing SRP35
Susan Treves, University Hospital, Basel

11:30-12:00 Concluding remarks, Poster prize (Markus Rüegg)

-please remove posters now-

12:00-13:00 Lunch

Departure

Poster presentations

Author	Title	Topic	Nr
Carlo Rossi	Cardiac regeneration potential of fetal mesoangioblasts from aorta, cardiac and skeletal muscle using engineered hyaluronic acid- or PEG-based hydrogels	Cell therapy	1
Francesca Coraggio	Improving cellular therapies of muscle dystrophies by uncovering epigenetic and signaling pathways of muscle formation	Cell therapy	2
Flavien Bermont	VEGF gene transfer enhances human muscle derived stem cells survival after transplantation in injured skeletal muscles	Cell therapy	3
Flavio_Ronzoni	Transcriptional signature of human mesoangioblasts from different fetal tissues	Cell therapy	4
Florian Bentzinger	Wnt7a stimulates myogenic stem cell motility and engraftment resulting in improved muscle strength	Cell therapy	5
Daniel Schümperli	Splicing correction for Erythropoietic Protoporphyrin	Gene therapy	6
Philipp Odermatt	Uncovering the role of microRNAs in SMA	Gene therapy	7
Luca Borradori	Characterization of the function of the spectraplakins BPAG1 in myoblasts	Muscle regeneration and plasticity	8
Maud Frieden	Characterization of the trafficking and functional properties of the muscle specific long STIM1 isoform	Muscle regeneration and plasticity	9
Karima Habbout	Modulations of transcription factors during human primary myoblast differentiation.	Muscle regeneration and plasticity	10
Stephane Konig	Modulations of transcription factors during human primary myoblast differentiation.	Muscle regeneration and plasticity	11
Jonathan Gill	PGC-1 α and Exercise: how to slow aging and sarcopenia	Muscle regeneration and plasticity	12
Lei Zhuang	The receptor FgfrL1 is specifically required for development and survival of slow muscle fibers	Muscle regeneration and plasticity	13
Laura Lukjanenko	Mechanisms of regeneration and ectopic adipogenesis during aging of skeletal muscle	Muscle regeneration and plasticity	14
Hesham Ismail Hamed	Diapocynin, a putative NADPH oxidase inhibitor, ameliorates the phenotype of a mouse model of Duchenne muscular dystrophy	New targets in NMD	15
Amparo Garcia-Lopez	Identifying small molecules targeting an RNA stem-loop involved in the alternative splicing of the SMN2 gene: a therapeutic target in SMA	New targets in NMD	16

Ruben Herrendorff	Identification of Small Molecules with Therapeutic Potential for Myotonic Dystrophy Type I	New targets in NMD	17
Jochen Kinter	Therapeutic Strategy for Facio-Scapulo-Humeral Muscular Dystrophy using Aptamers	New targets in NMD	18
Anuja Neve	Functional consequences of spinal muscular atrophy at the neuromuscular junction	New targets for ALS	19
Céline Ruegsegger	Identification of the aberrant interactome of mutant SOD1 in familial amyotrophic lateral sclerosis model of disease	New targets for ALS	20
Niran Maharjan	Unravelling the role of a novel protein C9ORF72 in ALS and FTD	New targets for ALS	21
Nathalie Rion	Ablation of raptor, but not rictor, impairs myogenesis during mouse development	New pathways in muscle pathology	22
Marijana Sekulic	Characterization of excitation contraction coupling components in human extraocular muscles	New pathways in muscle pathology	23
Perrine Castets	Denervation worsens the myopathy related to active mTORC1 by affecting autophagy	New pathways in muscle pathology	24
Marielle Brockhoff	Deregulation of the mTORC1 signalling and impairment of the autophagy process as pathomechanisms for Myotonic Dystrophy type I	New pathways in muscle pathology	25
Ruben Lopez Dicuru	Excitation-contraction coupling is affected by Raptor ablation (mTORC1) in skeletal muscle	New pathways in muscle pathology	26
Isabelle Vögeli	Function, Pharmacology and Pathophysiology of Transient Receptor Potential Canonical Channel 1 (TRPC1)	New pathways in muscle pathology	27
Ori Rokach	Mechanism of action of recessive RYR1 mutations	New pathways in muscle pathology	28
Marco Kaiser	Meta-analysis of mTORC1-regulated transcriptional networks in skeletal muscle	New pathways in muscle pathology	29
Bernhard Wehrle-Haller	Modulation of integrin adhesion-signalling during muscle cell differentiation	New pathways in muscle pathology	30
Alexis Ruiz	SRP35 and glucose uptake, metabolic and Physiologic effect.	New pathways in muscle pathology	31
Shuo Lin	The role of Akt activation for the myopathy caused by sustained activation of mTORC1	New pathways in muscle pathology	32
Tatiana Wiktorowicz	Novel mouse models for therapeutic studies of dysferlinopathies	New targets in NMD	33
Charlotte Lorin	Dystrophic cardiomyopathy - role of TRPV2 channels in stretch-induced cell damage	New pathways in muscle pathology	34