Translation Myology for Impaired Mobility

Euganei Hills, Padova (Italy), March 23 - 25, 2017
Hotel Augustus, Montegrotto, Euganei Hills (Padova), Italy & Accademia Galileiana di Scienze, Lettere e Arti, Padova, Italy
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Organizers: Francesco Ambrosio, Ugo Carraro, Paolo Gargiulo, Helmut Kern, Christaen Leuwenburgh, Antonio Musaro, Feliciano Protasi, Marco Sandri

THURSDAY March 23, 2017
Hotel Augustus, Montegrotto, Euganei Hills, (Padova), Italy, EU

15.00 Registration

15.30 Workshop: FES in mobility impairments
Helmut Kern, Gerta Vrbova and Francesco Piccione, Chairs

15.40 Lecture: What can be learned from the time course of changes in low-frequency stimulated muscle? Dirk Pette, Konstanz, Germany, EU

16.20 Acute and chronic responses to neuromuscular electrical stimulation in healthy humans: a brief overview, recent advances and future directions, Julien Gondin, Université Lyon 1, France, EU

16.40 Cardiovascular fitness for SCI, Emiliana Bizzarini, ASS #4 Friuli centrale, Udine, Italy, EU

17.00 FES of denervated muscle and beyond, Helmut Kern, Physiko- und Rheumatherapie, St. Poelten, Austria, EU

17.20 Presentation of the Stimulette den2x (Dr. Schuhfried Medizintechnik GmbH, Vienna, Austria) for the electrical stimulation of denervated muscles, Peter Biowski, Vienna, Austria, EU

17.40 Combined Physiotherapy and FES at the San Camillo Hospital of Venice-Lido, Andrea Marcante, IRCCS Fondazione Ospedale San Camillo, Venice-Lido, Italy, EU

18.00 Home-based FES for denervated muscles: Patients Opinions, Roberto Fiorucci, Antonio Piscioneri, Valter Caporello, Christian Cuciniello and more...

19.00 Get-together!

Posters on display

Poster 1. Fighting muscle weakness in premature and advanced age by take-home strategies: Full-body In-Bed Gym and FES for elderly persons, Ugo Carraro et al., IRCCS Fondazione Ospedale San Camillo Venezia-Lido, Italy, EU

Poster 2. Quantitative Computed Tomography and Image Analysis for Advanced Muscle Assessment, Ugo Carraro et al., IRCCS Fondazione Ospedale San Camillo Venezia-Lido, Italy, EU

Poster 3. Testing dexterity and mobility in the elderly, a simplified approach for the older olds, Alfons Baba et al., IRCCS Fondazione Ospedale San Camillo, Venezia, Italy, EU

Poster 4. Neurorehabilitation in neuromuscular disorders and consequences at microRNAs as circulating biomarkers, Laura Giaretta, et al., IRCCS Fondazione Ospedale San Camillo, Venice, Italy, EU

Poster 5. Inflammation in the gut and chronic low back pain, Sergio Veneziani et al., Adler-Balance, Ortisei, Italy, EU

Poster 6. Iron homeostasis in iPSC-derived cardiomyocytes from a patient with Friedreich’s Ataxia, Alessandra Bolotta, University of Bologna, Italy, EU

Poster 7. Peri-patellar injections of Hyaluronic Acid deeply affect the heart transcriptome: An unexpected hope for the therapy of cardiovascular diseases, Providenza M. Abruzzo et al., University of Bologna, Italy, EU

Poster 8. Role of MicroRNA in Amyotrophic Lateral Sclerosis: gender and genetic differences, V. Pegoraro et al., IRCCS Fondazione Ospedale San Camillo, Venice, Italy, EU

Poster 9. Insights and imaging phenotypes of traspontinopathy (limb-girdle muscular dystrophy type 1f), C. Angelini et al., IRCCS Fondazione Ospedale San Camillo, Venice, Italy, EU

Poster 10. PGC-1α overexpression in the skeletal muscle: effects on myogenesis, Marc Beltrò et al., Turin University, Italy, EU

Poster 11. Cancer and chemotherapy-induced cachexia in mice: effects of moderate exercise training, Riccardo Ballarò et al., Turin University, Italy

Poster 12. FES training protocols for the functional recovery of permanent complete denervated human muscles, Christian Hofer, et al., Vienna, Austria

Poster 13. The nutraceutical potential of Flaxseed bioactive compounds to treat muscular dystrophy, Felicia Caroteneuto, et al., Rome, Italy, EU

19.30 Dinner in Hotel Augustus

21.00 Brain Storming on Organizing International Research Activities of Translational Myology
FRIDAY March 24, 2017

08.00  **Shuttle BUS to Padova (Be strictly on time, please!)**

09.00  **Openings of the 2017 Spring PaduaMuscleDays**
Annalena Venneri, IRCCS Fondazione Ospedale San Camillo, Venice, Italy and University of Sheffield, UK; EU
Rosario Rizzuto, Rector of the University of Padova, Italy, EU

09.10  **Workshop: Molecular Approaches on Interactions of Pain & Mobility in Elderly**
Helmut Kern, Christinaa Leeuwenburgh and Francesco Ambrosio, Chairs

09.15  **Lecture: The underlying molecular mechanisms of muscle atrophy and sarcopenia**, Marco Sandri, University of Padova, Italy, EU

09.30  **Low-back pain: Molecular approaches to test effects of cayenne pepper cataplasm on skin and muscle**, Sandra Zampieri et al., University of Padova Italy, EU

10.20  **Pain management: Expression of the endocannabinoid receptors in human fascial tissue**, Giovanna Albertin, et al., University of Padova, Italy, EU

10.40  **Pain management: Laser-induced biological effects on muscle mitochondria**, Giulia Ottaviani, University of Trieste, Italy, EU

11.00  **Coffee break: Open bar**

11.20  **Mitochondrial turnover in muscle: effect of exercise and age**, David Hood, York University, Toronto, Canada

11.50  **Interventions to reduce low grade chronic inflammation and improve geriatric outcomes**, Stephen Anton, University of Florida, Gainesville, FL, USA

12.20  **Muscle, systemic iron deregulation and aging: therapies to prevent disability and mobility impairments**, Christiaan Leeuwenburgh, University of Florida, Gainesville, FL, USA

13.00  **Lunch in Piazza Duomo, Padova**

14.00  **Workshop: Muscle & Imaging, from basics to clinical evidence**
Paolo Gargiulo, Feliciano Protasi and Ugo Carraro, Chairs

14.00  **Discovery of new SR/TT junctions that mediate Ca$^{2+}$ Entry in skeletal muscle**, Feliciano Protasi, University of Chieti, Italy, EU

14.30  **Localization of the ERG1 potassium channel in mammalian skeletal muscle**, Amber L. Pond, J Cheeckwood, LB Anderson, BA Cobb, CD Latour, SIU, Carbondale, IL; U Carraro, Venice-Lido; M Sandri, S Zampieri, UniPd, Italy

14.50  **Dysfunctional accumulation of STIM1 and Orai1 in Tubular Aggregates results in impaired Ca$^{2+}$ entry in ageing muscle**, Simona Boncompagni, University of Chieti, Italy, EU

16.10  **Exercise-induced alterations of M-line organization in obscurin k-o mice: Implications for human pathology**, Pierantozzi E et al., Siena, Italy, EU

16.30  **S6K1 is required for increasing skeletal muscle force during hypertrophy**, Bert Blaauw, et al. University of Padova, Italy, EU

16.50  **Coffee break: Open bar**

17.00  **Advanced muscle assessment by mean of 3-D modeling and profiling**, Paolo Gargiulo, Clinical Engineering and Information Technology, Landspitali - University Hospital, Reykjavik, Iceland

17.30  **QMC-CT, a quantitative muscle assessment that oldest patients understand and that can get them to take-home full-body in-bed gym strategies**, Ugo Carraro, et al., IRCCS Fondazione Ospedale San Camillo Venezia-Lido, Italy, EU

17.50  **MicroRNAs expression in muscles and serum in DM1**, Corrado Angelini, et al., IRCCS Fondazione Ospedale San Camillo Venezia-Lido, Italy, EU

18.10  **Lecture: Physical exercise as a preventative strategy to slow down cognitive decline in aging**

18.10  **Evidence for the value of aerobic physical activity**, Annalena Venneri, Matteo De Marco, University of Sheffield, UK; IRCCS Fondazione Ospedale San Camillo, Venezia-Lido, Italy, EU

18.50  **Shuttle Bus to Hotel Augustus, Montegrotto, Euganei Hills (Padova)**

20.00  **Dinner in Hotel Augustus**

21.30  **Brain Storming: Organizing the International League of Myology Centers (ILMC)**
SATURDAY March 25, 2017  Hotel Augustus, Montegrotto, Euganei Hills (Padova), Italy, EU

09.00  **Workshop: Functional Rejuvenation in Aging** – Matthias Krenn, Jonathan Jarvis, Chairs

09.00  **Lecture:** Experimental activation of damaged nerves and denervated muscles, Jonathan Jarvis, Liverpool John Moores University, Liverpool, UK, Mike Willand, Toronto, Canada, Morten Schmoll, Hermann Lammüller, Vienna, Austria

09.40  **Chronic electrical stimulation for reversing signs of laryngeal muscle ageing**, Markus Gugatshka, Michael Karbner, Phoniatry, Graz, Austria, EU

10.00  **3D reconstruction of the thyroarytenoid muscle combined with phonation analysis in an ex-vivo animal study on aged sheep larynges**, Claus Gerstenberger, Phoniatry, Graz, Austria, EU

10.20  **Coffee break**

11.00  **Workshop: ES in Neuromuscular Disorders** – Winfried Mayr, Lukas Kneisz, Chairs

11.00  **Clinical Results of ES in Unilateral Vocal Fold Paralysis (uVFP)**, Berit Schneider-Stickler, Matthias Leonhard, Department of Otorhinolarangology/Division of Phoniatrics-Logopedics Vienna; Gerd Fabian Volk, Orlando Guntinas-Lichius, ENT Jena, Germany; Winfried Mayr, Medical, Center for Medical Physics and Biomedical Engineering, University Vienna, Austria, EU

11.30  **Clinical results of ES in facial nerve paralysis as a model of ES for muscles with a mixed lesion pattern: chronic denervation and misdirected reinnervation**, Fabian Volk, Orlando Guntinas-Lichius, ENT, Jena, Germany, Winfried Mayr, Vienna, Austria, EU

12.00  **Poster Session**

13.00  **Lunch in Hotel Augustus**

14.00  **Workshop: Rehabilitation strategies for severe muscle atrophy and dystrophy**

14.00  **Lecture:** Physical, pharmacological and nutritional interventions against muscle wasting and dystrophy, Dario Coletti, Rome & Paris, EU

14.30  **Cancer and chemotherapy-induced cachexia in mice: effects of moderate exercise training**, Ballarò Riccardo et al. Turin University, Italy, EU

14.50  **Generation of iPSC lines from NLSDM patients carrying different PNPLA2 gene mutations: a novel frontier for the study of neutral lipid metabolism disorders**, Daniela Tavian et al. Milan, Italy, EU

15.10  **Seeking economy of charge injection in activation of motor nerves**, Martin Schmoll, Jonathan Jarvis, Liverpool/Vienna, EU

15.30  **In vitro surface characterization of adapted platinum neural stimulating electrodes**, Polona Pečlin, Janez Rozman, University of Ljubljana, Slovenia, EU

15.50  **Comparing somatosensory evoked potentials resulting from transcutaneous spinal cord stimulation (tSCS) and tibial nerve stimulation in healthy and CP subjects**, Thordur Helgason, Bragi Arnason, Vilborg Gudmundsdottir, Gija Magnusdottir, Gudbjorg Kristin Ludvigsdottir, Reykjavik, Iceland; Karlsruhe, Germany, EU

16.10  **Coffee break**

16.45  **Testing dexterity and mobility in the elderly, a simplified approach for the older olds**, Alfonc Baba et al., IRCCS Fondazione Ospedale San Camillo, Venice-Lido, Italy, EU

17.00  **Neurorehabilitation in Neuromuscular disorders and consequences at microRNAs as circulating biomarkers**, Laura Giaretta, et al., IRCCS Fondazione Ospedale San Camillo, Venezia-Lido, Italy, EU

17.15  **Inflammation in the gut and CLBP: Intestinal permeability and microbiota**, Sergio Veneziani, Adler-Balance, Ortisei, Italy, EU

17.30  **Peri-patellar injections of Hyaluronic Acid deeply affect the heart transcriptome: An unexpected hope for the therapy of cardiovascular diseases**, Provvidenza M. Abruzzo et al., Dept. DIMES, University of Bologna, Italy, EU

17.45  **Iron homeostasis in iPSC-derived cardiomyocytes from a patient with Friedrich’s Ataxia and from a healthy subject**, Alessandra Bolotta et al., Department of DIMES, University of Bologna, Italy, EU

18.00  **The nutraceutical potential of Flaxseed bioactive compounds to treat muscular dystrophy**, Felicia Carotenuto et al., Rome, Italy, EU

18.30  **Ugo Carraro: Arrivederci, Auf Wiedersehen, Kveðja þín, See You to the 2018Spring PaduaMuscleDays**

20.00  **Dinner in Hotel Augustus**