Sunday April 26, 2009
Terme Euganee Conference Hall, Hotel Augustus, Viale Stazione 150 - 35136 Montegrotto Terme (Padova), Italy
14.00 – 19.00 Registration

14.00 **TM Workshop** To train denervated muscles with Therapeutic Electrical Stimulation (TES)
H. Kern, S. Masiero, U. Carraro, **Organizers**

**Session 1. RISE2-Italy Project** – Stanley Salmons and Winfried Mayr, **Chairmen**
15.00 **Lecture:** Rehabilitation strategies from infrequent paraplegic syndromes to common aging-related muscle weaknesses Helmut Kern, Wien, Austria
15.30 **FES-induced recovery of skeletal fibers lacking innervation,** Feliciano Protasi, Simona Boncompagni et al., Chieti, Italy
15.45 **EC-C related gene expression is up-regulated in long-standing rat muscle denervation: Implications for muscle rehabilitation,** Marina Marini, Bologna, Italy
16.00 **First experience of TES for difficult-to-stimulate paraplegics,** Emiliana Bizzarrini. et al., Udine, Italy
16.15 **TES of denervated muscles after peripheral nerve lesion,** Stefano Masiero et al., Padova, Italy
16.30 **Rise2-Italy Trial. Structural and psychological effects of home electrical stimulation at 6 months treatment after complete SCI,** Marco Ferraro et al, Padova, Italy
16.45 **Study of muscular activation during whole body vibration training,** Paolo Bifulco et al., Napoli, Italy
17.00 **Joint stability and balance training in injury prevention and rehabilitation protocols,** Nejc Sarabon. et al., Koper, Slovenia
17.20 Break

**Session 2. Functional Imaging of Muscle Tissue** –Helmut Kern & Claudio Ferraro, **Chairmen**
17.40 **Muscle density distribution within Rectus Femoris due to Electrical Stimulation Therapy,** Thordur Helgason et al., Reykjavik, Iceland
18.00 **Direct and indirect effects on bone mineral density in paraplegic patients due to TES,** Paolo Gargiulo et al., Reykjavik, Iceland
18.20 **Ultrasonography of medium and small muscle vessels,** Romeo Martini et al., Padova, Italy
18.40 **Functional EchoMyography of denervated muscle. Preliminary results,** Roberto Stramare et al., Padova, Italy
19.00 **General Discussion**

20.00 **Dinner**

21.30 **RISE2-Italy Project & Functional Imaging of Skeletal Muscle: Two steps toward Brussels (money)?**
T. Helgason, H. Kern, S. Salmons, U. Carraro, **Organizers**
All conference participants are invited to discuss a proposal for an international project
Monday April 27, 2009

Archivio Antico, Palazzo Bo, University of Padova, Via VIII Febbraio 3, Padova

**cirMYO Lectures** – Helmut Kern & Francesco Mascarello, Chairmen

8.55  **Introduction**, Ugo Carraro, Padova, Italy

9.00  Muscle design strategies, **Clara Franzini-Armstrong**, Philadelphia, USA

9.40  Sarcomeric myosin genes: evolution and transcriptional control, **Stefano Schiaffino**, Padua, Italy

10.20 Plasticity and adaptive change: lessons from a paradigm shift, **Stanley Salmons**, Liverpool, U.K.

11.20 Muscle transcriptional pathways with electrical stimulation, **Jonathan C Jarvis, Lauren Fisher**, Liverpool, UK

11.40 Malignant hyperthermia in mice lacking calsequestrin, **Feliciano Protasi**, Chieti, Italy

12.00 Histological characteristics of cultured human muscle tissue, **Istvan Gati**, Linköping, Sweden

12.20 **MYH16**: the masticatory myosin unveiled, **Carlo Reggiani**, Padova, Italy

12.50 Visit to the Anatomical Theatre & Lunch at the Piazza della Frutta Bar Margherita

**Session 3. Physical activity at high altitude: general, cellular and molecular adaptations**

Giorgio Fanò & Carlo Reggiani, Organizers & Chairmen

14.30 **Lecture**: Adaptation of man to hypoxia: from the integrative to the molecular level

**Paolo Cerretelli**, Milan, Italy

15.00 **Manaslu Expedition 2008**: physiological adaptations to chronic altitude hypoxia, Vittore Verratti, Camillo Di Giulio, Federico Schena, Giorgio Fanò, Chieti, Italy

15.30 Anaerobic capacity and isometric contraction strength in six Italian climbers selected for Himalaya expedition, Christian Doria, Gerardo Bosco, Guglielmo Di Tano, Tiziana Pietrangelo

15.50 **Molecular and cellular muscle adaptations to physical activity in hypobaric hypoxia**, Luana Toniolo, P Cancellara, M Canato, L Dal Santo, Antonio Paoli, CarloReggiani., Padova, Italy

16.10 Oxygen supply and oxygen utilization in muscles after chronic exposure to hypobaric hypoxia, Valeria Marconi, Alessandra Adami, Carlo Capelli et al., Verona, Italy

16.30 Red blood cell neocytolysis in humans after high altitude de-acclimatization, Guglielmo Antonutto, Angela Risso, Udine, Italy

16.50 Break

17.10 The cellular basis of muscle regenerative capacity after physical activity under severe hypoxic conditions, Tiziana Pietrangelo, Rosa Mancinelli, Rita La Rovere, Stefania Fulle, Chieti, Italy

17.30 Genomic analysis of skeletal muscle under severe hypoxic conditions and physical activity, Rosa Mancinelli, Tiziana Pietrangelo, Rita La Rovere, Stefania Fulle, Chieti Italy

17.50 Proteome analysis of human vastus lateralis muscle (hVLM) from climbers after mountaineering expedition to Himalayas, Stefania Angelucci, Fabrizio Di Giuseppe, Sulpizio Marilisa, et al., Chieti Italy

18.10 Endocrine and metabolic response to extreme altitude and physical exercise in “elite” climbers, Andrea Benso, Silvia Grottoli, Turin, Italy

18.30 Closing remarks from Manaslu project: perspectives for an interdisciplinary approach in hypoxic studies, Federico Schena, Rovereto (Tn), Italy

20.00 **cirMYO Dinner at Hotel Augustus**

21.30 **cirMYO Educational Workshop & TM Review Series**
Tuesday April 28, 2009
Terme Euganee Conference Hall, Hotel Augustus, Viale Stazione 150 - 35136 Montegrotto Terme (Padova), Italy

Session 4. Myopathies I – Istvan Gati & Libero Vitiello, Chairmen

9.00 Lecture: Electrophysiological evaluation of denervated skeletal muscle fibres, Fabio Francini, Roberta Squecco, Florence, Italy
9.30 The expression of developmental markers in muscle fibers in diagnostic biopsies, Olaf Danielsson, et al., Linköping, Sweden
9.45 A defective SERCA1 protein is responsible for congenital pseudomyotonia in chianina cattle, Roberta Sacchetto, et al., Padova, Italy
10.00 Disferlinopathies, pathogenesis and effects of physical activity Carlo Borsatto et al., Padova, Italy
10.15 Injectable, photocuring biomaterial shaping 3d cell delivery, Marina Flaibani, Nicola Elvassore, Padova, Italy
10.30 Cell therapy for muscle dystrophies: delivery of myogenic precursor cells in mdx mice via polymeric scaffolds, Silvia Carnio et al., Padova, Italy
10.45 Clues to the formation of cores in a mouse model of malignant hyperthermia, Simona Boncompagni et al., Chieti, Italy
11.00 Break

Session 4. Myopathies II – Stefano Merigliano & Fabio Francini, Chairmen

11.15 Identification of cachexia predictive biomarkers in serum and muscle biopsies from patients bearing colorectal cancer, Sandra Zampieri, Nicoletta Adami, Massimo Vecchiato, Stefano Merigliano, Padova, Italy
11.30 Aging strength ability: a “strength condition” program in over 60 years aged fall prevention, Silvia Corbiano, Cristina Ciappetta, Paolo Bongioanni, Bruno Rossi, Marco Dini, Pisa, Italy
11.45 Neuroregenerative effect of oxandrolone. A case report, Vittorio Bianchi, Adriana Marbini, San Marino, Italy
12.00 Enhanced myogenic potential of CD44+ low bone marrow murine cells and Pax7+ cells formation after their injection in mdx mice, Martina Piccoli, et al., Padova, Italy
12.15 Different muscle stem cell sources delivered through photopolymerizable Hydrogel scaffold improve muscle regeneration, Carlo Alberto Rossi et al., Padova, Italy
12.30 The long-lasting denervated muscle: What we know from animal research? Ugo Carraro, Padova, Italy
12.55 U. Carraro Auf Wiedersehen, Sjáms, Aurevoir, Arrivederci, See You to 2009 Autumn Padua Muscle Days

13.00 Lunch

15.00 Pool Session!