

2023 On-site Pdm3, March 29 - April 1, 2023 - Thermae of Euganean Hills, Padua (Italy)



2023 Padua Days on Muscle & Mobility Medicine

Hotel Petrarca, Piazza Roma 23, Montegrotto Terme, Euganean Hills, (Padua), 35122 Italy
Phone +39 049 891 1744 - Email: petrarca@hotelpetrarca.it - <https://www.hotelpetrarca.it/>

Organizers

Elisabeth R. Barton, Ugo Carraro, Marcus Coplin, Raffaele De Caro, Paolo Gargiulo, Elena P. Ivanova, Helmut Kern, Nathan K. LeBrasseur, Christiaan Leeuwenburgh, Alessandro Martini, Stefano Masiero, Marco Narici, Rosanna Piccirillo, Riccardo Rosati, Jorge Ruas, Marco Sandri, Piera Smeriglio, Carla Stecco, H. Lee Sweeney, Sandra Zampieri

WEDNESDAY March 29, 2023

08:00 AM Complimentary Bus Transfer to Padua

Guariento Hall, Galilean Academy of Arts and Science of Padua, Italy

09:00 AM **Openings** Raffaele De Caro, Marco Narici, Marco Sandri: Greetings and thanks to lecturers, speakers, audience and sponsors

09:20 AM **Lecture of Carlo Reggiani:** Single muscle fibers as a tool in aging research

10:00 AM **Session I: Adaptations to Physical Exercise in Aging: from cell to functioning**
Marco Narici, Ugo Carraro, Chairs

10:00 AM **Russell Hepple, University of Florida, USA:** Skeletal Muscle Plasticity to Resistance Training in Pre-frail/Frail Elderly Women

10:20 AM **Charlotte Suetta, University of Copenhagen, DK:** Rehabilitation for life: the effect on physical function of rehabilitation and care in older adults

10:40 AM **Julian Alcázar Caminero, Universidad de Castilla-La Mancha, Toledo, Spain:** Improving muscle power through exercise training in old age

11:00 AM **Simone Porcelli, University of Pavia, Italy:** Home-based aerobic exercise training improves skeletal muscle oxidative metabolism in old people

11:20 AM **Martino Franchi, University of Padua, Italy:** Differential muscle adaptations to concentric and eccentric resistance training in older people

11:40 AM **Marco Narici, University of Padua, Italy:** The neuroprotective effects of exercise in older age

12:00 AM **Gianni Biolo, University of Trieste, Italy:** Nutrient-exercise interaction on muscle mass and function in aging

12:20 AM **Maria Chiara Maccarone, Stefano Masiero, Ugo Carraro, University of Padua, Italy:** Combating muscle weakness in bed-ridden elderly with Home-based Full-Body in-Bed Gym (hbFBiBG): Basics, Implementation and Preliminary Results of the Padua Initiative

12.45 AM **Lunch in Piazza Duomo, Padua, Italy**

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WEDNESDAY March 29, 2023**Guariento Hall, Galilean Academy of Arts and Sciences of Padua, Italy****02:30 PM SESSION II: Skeletal Muscle Epigenetics and the dark side of the genome***Piera Smeriglio, Marco Sandri, Chairs*

- 02:30 PM** *Marco Sandri et al., University of Padua, Italy: Discovering novel longevity genes by looking at the dark side of the genome*
- 03:00 PM** *Chiara Lanzuolo, Istituto Nazionale di Genetica Molecolare, Milan, Italy: Chromatin conformation of muscle stem cells in physiological and pathological muscular aging*
- 03:20 PM** *Piera Smeriglio, Sorbonne Université, Paris, France: To be announced*
- 03:40 PM** *Giuseppina Caretti et al., Milan University, Italy: Epigenetic targeting of BET proteins rewire metabolism in the aged skeletal muscle*
- 04:00 PM** *Silvere M. van der Maarel, Leiden University Medical Center, the Netherlands, To be announced*
- 04:20 PM** *Break*
- 04:30 PM** *Stefano Schiaffino, University of Padua, Italy, Who is Terje Lømo, a 88-year-YOUNG scientist still fully active!*
- 04:40 PM** *Lecture of Terje Lømo, University of Oslo, Norway: Body temperature regulation by tonic muscle impulse activity and brown adipose tissue*
- 05:20 PM SESSION III: Adaptations in Aging: from molecules to functioning**
- Rosanna Piccirillo, Jorge L. Ruas, Chairs*
- 05:20 PM** *Amber L. Pond, Southern Illinois University School of Medicine in Carbondale, IL, USA: The HERG K+ channel increases intracellular calcium in myotubes by modulation of Calsequestrin*
- 05:40 PM** *Jorge L. Ruas, Biomedicum, Karolinska Institute, Stockholm, Sweden: To be announced*
- 06:00 PM** *Bert Blaauw, University of Padua, Italy: The role of Akt-mTORC1 signaling in regulating muscle mass and function.*
- 06:20 PM** *Rosanna Piccirillo et al., IRCCS - "Mario Negri", Milan, Italy: To be announced*
- 06:45 PM** *Complimentary Bus Transfer to Hotel Petrarca, Thermae of Euganean Hills (Padua), Italy*
- 08:00 PM** *Dinner in Hotel Petrarca*

THURSDAY March 30, 2023**Conference Hall, Hotel Petrarca, Thermae of Euganean Hills (Padua) Italy****09:00 AM SESSION IV: Acquired muscle diseases: FES managements***Ines Bersch-Porada, Helmut Kern, Chairs*

- 09:00 AM** *Ines Bersch-Porada, Functional Electrical Stimulation Center, Notwill, Switzerland: Electrical stimulation in lower motoneuron lesions , from scientific evidence to clinical practice – a successful transition*
- 09:20 AM** *Gorgey S. Ashraf, Hunter Holmes McGuire VA Medical Center, Richmond, Virginia, USA: To Be Announced*
- 09:40 AM** *Gerd F. Volk, Facial Nerve Center, Jena University Hospital, Jena, Germany: To Be Announced*
- 09:40 AM** *Winfried Mayr, University of Vienna, Austria: To Be Announced*
- 10:00 AM** *Ugo Carraro, A&C M-C Foundation, Padua, Italy: My 40 years of electrical stimulation studies of permanent denervated muscles summarized by 15 slides in 15 minutes*
- 10:20 AM** *Giovanni Pegoraro, Neuromuscular Rehabilitation Center, Fondazione Borghi, Varese, Italy: Hand NMES in post-COVID syndrome*

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FRIDAY March 31, 2023

Conference Hall, Hotel Petrarca, Thermae of Euganean Hills (Padua) Italy

09:00 AM SESSION VII: Senescence & Rejuvenation

Nathan K. LeBrasseur, Christiaan Leeuwenburgh, Chairs

- 09:00 AM *Nathan K. LeBrasseur, Mayo Clinic, Rochester, MN, USA: Cellular senescence as a driver of skeletal muscle aging*
- 09:20 AM *David Hood, York University, Canada: Impact of age and sex on lysosomes and mitophagy during muscle use and disuse*
- 09:40 AM *Christiaan Leeuwenburgh, University of Florida, Gainesville, FL, USA: Inflammation, mitochondrial dysfunction senescence in skeletal muscle with aging and in peripheral artery disease*
- 10:00 AM *Barbara Grünig, Hans Hoppeler, University of Bern, Switzerland: The use of muscle rehabilitation: the Namibia experience*
- 10:20 AM *To Be Announced*
- 10.40 *Break*

FRIDAY March 31, 2023

ROOM B, Hotel Petrarca, Thermae of Euganean Hills (Padua) Italy

09:30 AM Practical Course on functional analysis of the stomatognathic system –

Claudia Dellavia, Riccardo Rosati, Chairs

9.30-11.00: Instrumental evaluations of the stomatognathic apparatus: static tests

11.00-11.15 Break

11.15-12.30: Instrumental evaluations of the stomatognathic apparatus: dynamic tests

For dentists who want to review/expand the functional analysis protocols of the stomatognathic system developed at the Laboratory of Functional Anatomy of the Stomatognathic Apparatus (LAFAS) of the University of Milan, Italy

FRIDAY March 31, 2023

Conference Hall, Hotel Petrarca, Thermae of Euganean Hills (Padua) Italy

10:50 AM SESSION VIII: Muscle Fascia, biology and pathology

Carla Stecco, Alessandro Martini, Chairs

- 10:50 AM *Carla Stecco, University of Padua, Italy: Fascia and aging*
- 11:05 AM *Alessandro Martini, University of Padua, Italy: Tensor Tympani and Stapedius: two unknown muscles*
- 11:20 AM *Carmelo Pirri, University of Padua, Italy: Fascia and Ultra Sounds*
- 11:35 AM *Caterina Fede, University of Padua, Italy: How sex hormones can affect the fasciae: Implication for pain*
- 11:50 AM *Giovanna Albertin, University of Padua, Italy: Lymphatic drainage of the subcutaneous tissue*
- 12:05 AM *Lucia Petrelli, University of Padua, Italy: Innervation and vascularization of the superficial fascia*
- 12:25 AM *Hans Hoppeler, University of Bern, Switzerland: Facts and Fantasies. A critical appraisal of "Fascia-Believes" of osteopathic medicine from an orthodox medical perspective*
- 13:00 AM *Lunch*

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FRIDAY March 31, 2023

Conference Hall, Hotel Petrarca, Thermae of Euganean Hills (Padua) Italy

02:30 PM SESSION IX: Non-invasive Assessments in Myology - Paolo Gargiulo, Ugo Carraro, Chairs

02:30 PM Riccardo Forni, Paolo Gargiulo, University of Reykjavik, Iceland: 3D Printing and radiodensity characterization of cardiac tissue: virtual histology and age dependency

03:00 PM Valentina Betti, Halldór Jónsson Jr, Luca Cristofolini, Magnús Kjártan Gíslason, Paolo Gargiulo, University of Reykjavik, Iceland: In silico 3d approach to evaluate bone remodelling after total hip arthroplasty: a six years longitudinal study

03:15 PM Federica Ciliberti, Halldór Jónsson Jr, Paolo Gargiulo, University of Reykjavik, Iceland: Novel strategies for cartilage assessment, interplay between bone and muscle

03:30 PM Lorenza Bonaldi, University of Padua, Italy: Deep learning applied to fascial alteration

03:45 PM Rosanna Piccirillo et al., IRCCS - "Mario Negri", Milan, Italy: A novel reporter technology, MyoRep, to follow in vivo skeletal muscle wasting

04:00 PM Ettore Rocchi, et al. Department of Biomolecular Sciences, University of Urbino Carlo Bo, Urbino, Italy: Exploring myofibrillar alignment in muscular tissue

04:15 PM Break

FRIDAY March 31, 2023

Conference Hall, Hotel Petrarca, Thermae of Euganean Hills (Padua) Italy

04:20 PM SESSION X: Muscle Rehabilitation in Dentistry, Riccardo Rosati, Elena P. Ivanova, Chairs

04:20 PM Riccardo Rosati, University of Milan, Italy: To Be Announced

04:40 PM Claudia Dellavia, University of Milan, Italy: To Be Announced

05:00 PM Elena P. Ivanova, Rehabilitation and Balneology Center, Moscow, Russia: Innovative methods of full dental rehabilitation

05:20 PM Francesca Ferrante; University of Pavia, Italy: Facial morphology and masticatory muscle recruitment

05:40 PM Roberto Rongo; University of Naples Federico II, Italy: Masticatory muscles pain management

06:00 PM Maria Dimova. University of Bulgaria: Bulgaria: Diagnosis and treatment of cranio-mandibular disorders

06:20 PM Mauricio Gonzales Balu, Mexico: To Be Announced

06:40 PM Edoardo Cavalle, Milan, Italy: To Be Announced

07:00 PM Amarsaikhan Bazar, Mongolia: Chewing hard food and its importance for general health

07:30 PM Dinner

09:00 PM AFTER DINNER ACTIVITIES

2023 On-site Pdm3, March 29 - April 1, 2023 - *Thermae of Euganean Hills, Padua (Italy)*

SATURDAY April 1, 2023

Conference Hall, Hotel Petrarca, *Thermae of Euganean Hills (Padua) Italy*

09:00 AM Session XI: LBI workshop on muscle rehabilitation - from mouse to elderly

Sandra Zampieri, Feliciano Protasi, Chairs

- 09:00 AM *Feliciano Protasi, University of Chieti, Italy: Mimicking disuse and rehabilitation in a mouse model*
- 09:30 AM *Antonio Musarò, University Sapienza of Rome, Italy: Molecular biological basis and effects of immobility and training in young and aging.*
- 10:00 AM *Sandra Zampieri, University of Padua, Italy: C-Terminal Agrin Fragment as a biomarker of muscle wasting and weakness in aging and disuse*
- 10:30 AM *Break*
- 10:40 AM *Jan Cvecka, University of Bratislava, Slovakia: Exercise intervention in elderly: a novel system within the Centre of Active Aging in Bratislava*
- 11:10 AM *Nejc Sarabon, University of Primorska, Slovenia: Relationship between 24-hour movement behaviour and physical performance in older adults: A cross-sectional insight into the Centre of active ageing data*
- 11:40 AM *Stephan Loeffler, Helmut Kern, LBI Rehabilitation Research, Vienna, Austria: AMB-REMOB – results of an early outpatient rehabilitation program*
- 12:10 AM *Vincent Grote, Michael Fischer, LBI Rehabilitation Research, Vienna, Austria: Outcomes of early rehabilitation in elderly patients*
- 12.40 AM *Lunch*

SATURDAY April 1, 2023

12:45 AM **Complimentary Transfer to Medical Hotel Ermitage (restricted to 15 Attendees)**

Medical Hotel Ermitage, Abano *Thermae (Padua) Italy*

- 01:00 PM ***European Medical Thermalism, Practical Activities - Ugo Carraro, Stefano Masiero, Chairs***
- 01:00 PM ***Working Lunch in Medical Hotel Ermitage***
- 01:30 PM ***Marco Maggia, Director of the Medical Hotel Ermitage***
Balneology, Balneotherapy, Mud and Physiotherapies for Prevention & Rehabilitation in the Medical Hotel Ermitage, a pioneering 15-year successful example

SATURDAY April 1, 2023

Conference Hall, Hotel Petrarca, *Thermae of Euganean Hills (Padua) Italy*

03:00 PM SESSION XII: European Medical Thermalism and FEMTEC

Marcus Coplin, Stefano Masiero, Chairs

- 03:00 PM *Marcus Coplin: A case study of balneotherapy in Fibromyalgia*
- 03:30 PM *Helmut Kern, LBI Rehabilitation, Vienna, Austria: Underwater physiotherapy after knee replacement*
- 04:00 PM *Maria Chiara Maccarone, University of Padua, Italy: Balneology and Balneotherapies in Euganean Hills *Thermae (Padua) Italy**
- 04:30 PM *Andrey Rachin, Rehabilitation and Balneology Center, Moscow, Russia: Modern methods of neuro-rehabilitation*
- 05:00 PM *Irina A. Grischechkina, Rehabilitation and Balneology Center, Moscow, Russia: Outcomes of rehabilitation programs in patients with post-COVID-19 syndrome*
- 05:30 PM *To be announced*
- 06:00 PM *Stefano Masiero, University of Padua, Italy: Final remarks*
- 06:30 PM ***Ugo Carraro: Adijo, Adiós, Arrivederci, Au revoir, Auf Wiedersehen, Bayartai, Do pobachennya, Do svidaniya, Dovizhdane, Goodbye, Tot ziens, Zbohom to the 2024 Padua Days on Mobility Medicine***
- 07:30 PM *Dinner*
- 09:00 PM **AFTER DINNER ACTIVITIES**