EMS in elderly people: for a strong and independent life

Invitation Expert Meeting
Bern, 14 June 2018, 10:30 – 17:30

One of the major challenges in the elderly is the retention of muscle strength and muscle function, which are critical to ensure independence with good quality of life throughout the entire lifespan. The aim of the meeting is to explore how electrical muscle stimulation EMS, which can be integrated into passive and active treatments, could be a suitable approach for individuals of varying ability and mobility. The state of the art, as well as investigations into new technologies and treatments, will be discussed. These will include stimulation modes and protocols but also suitable devices and stimulators which have particular usability for elderly people now and in the future.
# Program Expert Meeting

Thursday, 14 June 2018, 10:30 – 17:30

ARTORG Center for Biomedical Engineering Research, Murtenstrasse 50, 3008 Bern/Switzerland, Room F502

Please do **register** for this event **by June 8** - via email to diana.bethge@artorg.unibe.ch or use the following link RegistrationEMS.

## Morning Session

Moderators: Hugo Saner and Elena Tomislovskaya

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| 10:30 | Yuri Koryak, Inst. of Biomedical Problems, Academy of Science, Moscow RU  
EMS effects on skeletal muscle |
| 11:00 | Elena Tomilovskaya, Inst. of Biomedical Problems, Academy of Science, Moscow RU  
Effects of gravity unloading in the muscular system |
| 11:30 | Inessa Kozlovskaya, Inst. of Biomedical Problems, Academy of Sciences, Moscow RU  
EMS as countermeasure for weightlessness: experience from space. |
| 12:00 | Toshio Moritani, Tokyo JP  
Basic considerations for effective EMS |
| 12:30 | Panel discussion                                                                            |
| 13:00 | Lunch Break                                                                                 |
Afternoon session

Moderators: Hugo Saner and Toshio Moritani

14:15 – 14:45  Toshio Moritani, Tokyo JP
EMS for clinical applications: metabolic and neurotropic effects

14:45 – 15:15  Elin de Bruin, ETH Zuerich CH and Karolinska Institute, Stockholm SE
Neuromuscular control and healthy aging

15:15 – 15:45  Tibor Hortobagyi, Universität Groningen NL
Gait dynamic and cognitive decline

15:45 – 16:15  Marco Minetto, Universita Torino, IT
Neuromuscular testing and training: unresolved issues

16:15 – 16:30  Coffee break

16:30 – 17:30  Consequences for EMS research and application in the elderly
Panel discussion