prof. MUDr. Marcela Grünerová Lippertová, Ph.D.

Head of Department of Rehabilitation Medicine 3FM CU and UHKV
https://www.lf3.cuni.cz/3LFEN-221.html

Topic title
Neuromodulation and its use in neurorehabilitation.
Virtual reality in neurorehabilitation.

Description of scientific activity

The main scientific interests are in the field of neuroplasticity, early neurorehabilitation of patients after brain trauma and stroke, multisensory stimulation and neuromodulation.
Important goals of clinical activity are the establishment of early neurorehabilitation for a group of patients with severe brain damage in the Czech Republic, implementation of neurostimulation and neuromodulation methods, introduction of early mobilization and multisensory stimulation in intensive care units, development of rehabilitation concepts for patients after burn trauma. Teaching in bachelor's and master's fields, supervisor of postgraduate studies in the field of neurosciences. Regular teaching activities abroad.

The main publications include books: 2005 Neurorehabilitace (Galen Praha); 2009 Trauma mozku a jeho rehabilitace (Galen Praha); 2012 Rehabilitace pacientů v kómatu (Galen Praha); 2014 Rehabilitace po cévní mozkové příhodě (Galen Praha); 2020 Multisenzorická stimulace (Galen Praha) 2021.

Selected publications

GRÜNER, Stephan (K); SCHULZ, Axel; SCHLÜTER-BRUST, Klaus; LIPPERT-GRÜNER, Marcela (3.LF/REHAB): Botulinum Toxin for Chronic Lateral Epicondylitis (LE): Indications, Techniques and Literature Review. Zeitschrift für Orthopädie und Unfallchirurgie, 2021, 159: 554-564.

GUEYE, Tereza (K) (3.LF/REHAB); DĚDKOVÁ, Miriama (3.LF/REHAB); ROGALEWICZ, Vladimír; GRÜNEROVÁ LIPPERTOVÁ, Marcela (3.LF/REHAB); ANGEROVÁ, Yvona: Early post-stroke rehabilitation for upper limb motor function using virtual reality and exoskeleton: equally efficient in older patients. Neurologia i Neurochirurgia Polska, 2021, 55(1): 91-96

LIPPERT-GRÜNER, Marcela (K) (3.LF/REHAB); WEDEKIND, Christoph: Dekompressive Kraniektomie: Ergebnisse einer frührehabilitativen Förderung sechs Monate nach schwerem Schädel-Hirn-Trauma. Physikalische Medizin, Rehabilitationsmedizin, Kurortmedizin, 2018, 28(5): 287-290

Selected or ongoing grants/clinical studies

Study of the effect of transcranial direct current stimulation (tDCS) on improving the results of rehabilitation of functional upper limb motor skills in patients after stroke.

Randomized blinded study of the effect of complex rehabilitation and non-invasive neuromodulation on the functional status of patients with chronic back pain.

Randomized controlled trial of the effect of rehabilitation using audiovisual feedback in patients with imbalance

PhD Students

Number of PhD students currently studying: 3