



TWINBRAIN

TwinBrain WORKSHOP 3.0

Trieste, 30 March – 1 April 2023



Advances in movement disorders diagnosis and rehabilitation:
from new technologies to clinical practice



This event is part of a project that has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 952401



**UNIVERSITÀ
DEGLI STUDI
DI TRIESTE**

Thursday, 30 March

14:30

Registration

I SESSION:

Neurophysiology and Biomedical Engineering in Movement Disorders

Chairs:

Paolo Manganotti - Milos Ajcevic - Alex Buoite Stella

15:00 - 15:15

Michele Tinazzi

President Italian Parkinson and Movement Disorder Society

15:15 - 15:45

Neurophysiology Studies in Movement Disorders

Paolo Manganotti

Clinical Unit of Neurology, University of Trieste, Italy

15:45 - 16:15

COFFEE BREAK

16:15 - 16:45

Neuroimaging and EEG in Parkinson's Disease

Milos Ajcevic

Department of Engineering and Architecture, University of Trieste, Italy

16:45 - 17:15

Exploring muscle-brain crosstalk in Parkinson's disease using Mobile Brain/Body Imaging

Uroš Marušič and Milos Kalc

Science and Research Center (ZRS), Koper, Slovenia

17:15 - 17:45

Neural mechanisms of cognitive-motor dual tasking in early Parkinson's disease: Preliminary results of the ongoing Twin Brain project clinical trial

Manca Peskar

ZRS, Koper, Slovenia / Technical University of Berlin, Germany

17:45 - 18:15

Using inertial motion sensors to assess the effect of noninvasive vagal nerve stimulation on gait in advanced Parkinson's disease patients

Vesna M. van Midden

Department of Neurology, University Medical Centre Ljubljana, Slovenia

18:15

WELCOME COCKTAIL

Friday, 31 March

II SESSION:

Exercise and rehabilitation in movement disorders

Chairs:

Manuela Deodato - Alex Buoite Stella

9:30 - 10:00	<i>Movement analysis in movement disorders</i> Eleonora Guanzioli Bioengineering Department of Villa Beretta Rehabilitation Centre, Como, Italy
10:00 - 10:45	<i>Movement for movement disorders: the physiological role of active and assisted exercise</i> Alex Buoite Stella Department of Medicine, Surgery and Health Sciences, University of Trieste, Italy
10:45 - 11:15	COFFEE BREAK
11:15 - 12:00	<i>Which rehabilitation in Parkinson Diseases</i> Daniele Volpe Scientific Coordinator of Fresco Parkinson Institute, Villa Margherita Foundation, Vicenza, Italy
12:00 - 12:45	<i>The Gait in Freezing phenomenon and Rehabilitation</i> Susanna Mezzarobba University of Genoa, Italy
12:45 - 15:00	LUNCH BREAK

III SESSION:

Clinical, neuroimaging and neuromodulation aspects of movement disorders

Chairs:

Paolo Manganotti - Milos Ajcevic

15:00 - 15:45	<i>Clinical picture and therapy, the experience of Trieste University Hospital</i> Mauro Catalan Clinical Neurology Unit University Hospital, Italy
15:45 - 16:30	<i>Neuroimaging in Movement Disorders</i> Maja Trost Clinical Neurology Unit, University of Ljubljana, Slovenia
16:30 - 17:00	COFFEE BREAK
17:00 - 17:45	<i>Deep Brain Stimulation: current indications and future perspectives</i> Maria Chiara Malaguti Clinical Neurology Unit, University Hospital Santa Chiara, Trento, Italy
17:45 - 18:30	<i>Deep Brain Stimulation: clinical picture and possible rehabilitation</i> Vladimira Vuletić Clinical Neurology Unit, University of Rijeka, Croatia
18:30 - 19:15	<i>The Energy Cost of Human Locomotion - From Theory to Good Practice</i> Carlo Capelli Department of Neurosciences, Biomedicine and Movement Sciences, University of Verona, Italy

Saturday, 1 April

IV SESSION:

Practical session - how to assess and study movement disorders

Chairs:

Manuela Deodato - Giulia Sgubin - Miriam Martini - Manca Peskar

9:30 - 12:30

**Practical session at Rehabilitation Gym of Physiotherapy degree study program.
Activities performed by physiotherapists and residents in neurology.**

Practical session 1 – How to assess and study movement disorders

Practical session 2 – Application of technology-based rehabilitation strategies

Practical session 3 – Twin Brain – MoBI Technology in action

Scientific Committee

Prof. Paolo Manganotti,
Clinical Unit of Neurology, University of Trieste, Italy

Assist. Prof. Milos Ajcevic,
Department of Engineering and Architecture, University of Trieste, Italy

Dr. Alex Buoite Stella,
Department of Medicine, Surgery and Health Sciences, University of Trieste, Italy