



**The Stanley Steyer School  
of Health Professions**  
Sackler Faculty of Medicine  
Tel Aviv University

**MULTIPLE SCLEROSIS CENTER**  
THE STATE OF ISRAEL - MINISTRY OF HEALTH  
THE CHAIM SHEBA MEDICAL CENTER  
TEL - HASHOMER 62821, ISRAEL



22nd SIG Mobility In-Between Meeting – Tel-Aviv, Israel

## **Brain, cognition and movement in MS: challenges for rehabilitation**

**28<sup>th</sup> - 29<sup>th</sup> October 2019**

Hosted by the SIG Mobility,  
Carme Santoyo - Chair (Spain) and Lousin Moundjian - Co-chair (Belgium)

Local organizer Alon Kalron  
Department of Physical therapy, Sackler Faculty of Medicine, Tel-Aviv  
University, Tel-Aviv, Israel  
Multiple Sclerosis Center, Sheba Medical Center, Tel-Hashomer, Israel

**Final Program**

## Sunday – October 27<sup>th</sup>, 2019

**19.00-Late**      **Welcome reception**  
Kfar Maccabiah Hotel

**19:15-19:45**      **Shay Menascu, Multiple Sclerosis Center, Sheba Medical Center, Tel-Hashomer, Israel**  
*Title: Rehabilitation in child and juvenile MS (Sponsored by Merck)*

**20.00 to late**      **Cocktail dinner**

## Monday – October 28<sup>th</sup>, 2019

**8.30-8.45**      **Registration opens**  
Tel-Aviv University, School of Health Professions

**8.45-10.30**      **Opening session**  
8.45 - 9.00      Welcome: Carme/Lousin/Alon  
9.00 - 9.35      Keynote 1: **Gilles Allali, University of Geneva, Switzerland**  
*Title: Brain correlates of gait disorders in multiple sclerosis*

**9.35–10.30**      **Session 1: Free papers (5)**  
Chair: Anat Achiron, Peter Feys

9.35 - 9.45      **Michal Rivel (Israel)** *Central neuropathic pains in multiple sclerosis is associated with widespread damage to thermal processing and pain modulation pathways.*

9.45 – 9.55      **Kim-Charline Broscheid (Germany)** *Estimation of prefrontal cortex activation while walking in multiple sclerosis*

9.55 - 10.05      **Johanna Jonsdottir (Italy)** *Digital health treatment for people with multiple sclerosis: virtual reality neurorehabilitation (Italian Network of TeleNeuro Rehabilitation) compared with an active exercise program. Impact on mobility and cognitive function*

10.05 – 10.15      **Veronica Garcia-Marti (Spain)** *Partly immersive virtual reality system for neurorehabilitation in multiple sclerosis: a feasibility study*

10.15 – 10.25      **Rita Bertoni (Italy)** *Immersive virtual reality for bilateral upper limb rehabilitation in People with Multiple Sclerosis: Preliminary Results*

**10.30-11.00**      **Coffee break**

**11.00-11.35**      Keynote 2: **Jeffrey Hausdorff, Center for the Study of Movement, Cognition and Mobility, Sourasky Medical Center, Tel Aviv, Israel**  
*Title: The effects of multiple sclerosis on community ambulation: beyond reduced activity*

<b>11.35 -12.30</b>	<b>Session 2: Free papers (5)</b> Chair: Massimiliano Pau, Alon Kalron
11.35 - 11.45	<b>Giuseppina Pilloni (Italy)</b> <i>Cognitive-motor interference induces kinematic adaptations of gait in individuals with multiple sclerosis</i>
11.45 - 11.55	<b>Tom Meurrens (Belgium)</b> <i>The experience and expectations of pwMS after walking with the EksoGT</i>
11.55 - 12.05	<b>Andrea Tacchino (Italy)</b> <i>Kinematics, muscular activity and spinal maps activation during activities of daily living: new hints for MS rehabilitation</i>
12.05 - 12.15	<b>Lousin Moundjian (Belgium)</b> <i>Biological variability when entraining walking to music and metronomes at different tempi: evidence from healthy controls and persons with multiple sclerosis</i>
12.15 - 12.25	<b>Zuhai Abasiyanik (Turkey)</b> <i>Psychosocial explanatory factors of balance confidence in persons with multiple sclerosis</i>
<b>12.30-13.30</b>	Lunch break
<b>13.30-14.50</b>	<b>Session 3: Free papers (8)</b> Chair: Lousin Moundjian, Elisa Gervasoni
13.30 - 13.40	<b>Massimiliano Pau (Italy)</b> <i>Does multiple sclerosis differently alters physical activity levels in men and women? A quantitative analysis</i>
13.40 - 13.50	<b>Carne Santoyo (Spain)</b> <i>Effect of nordic walking training on walking capacity in people with multiple sclerosis</i>
13.50 – 14.00	<b>Shani Berkowitz (Israel)</b> <i>Acute effects of aerobic intensities on the cytokine response in women with mild multiple sclerosis</i>
14.00 – 14.10	<b>Fanny Van Geel (Belgium)</b> <i>Art for MS - Effects of a 10-week multimodal dance and art intervention program on fatigue, fatigability, and their related factors - A controlled pilot-trial</i>
14.10 – 14.20	<b>Stefano Addeo (Italy)</b> <i>Auditory cueing and aerobic training in people with multiple sclerosis. A preliminary study with full body exercises</i>
14.20 – 14.30	<b>Rebecca Hamilton (United Kingdom)</b> <i>Investigating the impact of a spinal mobilization intervention in people with multiple sclerosis.</i>
14.30 – 14.40	<b>Renee Veldkamp (Belgium)</b> <i>Cognitive-motor dual task training in people with MS: a multicenter randomized controlled study</i>
14.40 – 14.50	<b>Klara Novotna (Czech Republic)</b> <i>Effect of an aerobic-resistance circuit training on body composition in older women with multiple sclerosis, pilot study</i>
<b>14.50-15.30</b>	Coffee break

<b>15:30-17:00</b>	<b>Session 4: Free papers (5)</b> Chair: Carme Santayo, Davide Cattaneo
15.30 - 15.40	<b>Leora Hershkovitz (Israel)</b> <i>Instrumented Sit-To-Stand and Timed-Up and Go tests in people with multiple sclerosis</i>
15.40 - 15.50	<b>Peter Feys (Belgium)</b> <i>Day-to-day reliability, agreement and discriminative validity of measuring walking-related performance fatigability in persons with multiple sclerosis</i>
15.50 - 16.00	<b>Elisa Gervasoni (Italy)</b> <i>Instrumented assessment of physical activity in early diagnosed people with multiple sclerosis</i>
16.00 - 16.10	<b>Anastasi Denise (Italy)</b> <i>Instrumented assessment of more affected and less affected hand in people with multiple sclerosis</i>
16.10 - 16.20	<b>Fabiola Giovanna Mestanza Mattos (Italy)</b> <i>How can we clinically assess balance in early diagnosed people with multiple sclerosis?</i>
<b>16:30-17:00</b>	Brainstorming - SIG Mobility future projects
<b>19:15-20:00</b>	Guided tour in old Jaffa (Bus leaves hotel at 18:45)
<b>20:00-Late</b>	Gala dinner and social event

## Tuesday – October 29<sup>th</sup>, 2019

<b>8.30-8.45</b>	<b>Registration opens</b> Sheba MSC and Rehabilitation Hospital
8.45-9.20	Keynote 4: <b>Anat Achiron, Director Multiple Sclerosis Center, Sheba Medical Center, Tel-Hashomer, Israel</b> <i>Title: Advances in cognitive rehabilitation in MS (Sponsored by Roche)</i>
9.20 – 10.00	<b>Beatube activity</b>
<b>10.00 – 10.15</b>	Short break
<b>10.15 – 11.05</b>	<b>Session 5: Free Papers (5)</b> Chair: Paul Van Asch, Andrea Tacchino
10.15 - 10.25	<b>Ludovico Pedullà (Italy)</b> <i>Promoting sport activity in MS: from engagement to empowerment of people with multiple sclerosis</i>
10.25 – 10.35	<b>Asiye Tuba Özdoğar (Turkey)</b> <i>Effect of obesity on walking and balance control in people with multiple sclerosis</i>
10.35 – 10.45	<b>Claudio Solaro (Italy)</b> <i>Correlation between three upper limb objective measures in multiple sclerosis</i>

10.45 – 10.55	<b>Thomas Bowman (Italy)</b> <i>Physical therapy interventions to improve mobility in People with multiple sclerosis: Preliminary results of a multicenter Italian study</i>
10.55 – 11.05	<b>Fanny Van Geel (Belgium)</b> <i>The effect of the WalkWithMe application on physical activity, walking, fatigue and cognition in patients with Multiple Sclerosis</i>
<b>11:05-11.20</b>	Coffee break
<b>11.20-13.15</b>	<b>Switching workshops</b> <b>Workshop 1: Advanced virtual reality systems for MS rehab</b> (Hani / Richard) <b>Workshop 2: "Rehabilitation in movement" Steps clinic</b> (Boaz / Ilanit)
<b>13.15- 14.15</b>	Lunch break
<b>14.15-15.00</b>	<b>Tour of the Sheba MS Center and Rehabilitation Hospital</b>
<b>15.00 –16.30</b>	<b>Switching workshops</b> <b>Workshop 3: Gamification of physical rehabilitation in MS</b> (Gadi) <b>Workshop 4: Re-Step Rehabilitation system</b> (Simona)
<b>16.30 –16.45</b>	<b>Summary and Close of the meeting</b> <b>Welcome to the 2020 23<sup>rd</sup> SIG Mobility in...</b>