

INTRODUCTION

The European Federation of NeuroRehabilitation Societies and the Italian Society of NeuroRehabilitation are pleased to invite you to attend the European Summer School on gait and balance rehabilitation in neurological diseases.

Balance and gait rehabilitation represent one of the most relevant fields of interest in the NeuroRehabilitation spectrum.

This international five-days course intends to update the participants (Specialist PMR, Neurologists and Physiotherapists, in particular) about basic and advanced knowledge in this field. The venue of the Summer School is the historical College "Fratelli Cairoli", founded in 1781 (www.collegiocairoli.it).

The programme will include several sessions of practical training on rehabilitation techniques and new technologies, which will be held at the "C. Mondino" Foundation and "S. Maugeri" Foundation research institutes.

DIRECTORS

G. Sandrini	(Pavia, Italy)
V. Homberg	(Dusseldorf, Germany)
L. Saltuari	(Innsbruck, Austria)
N. Smania	(Verona, Italy)

FACULTY

G. Abbruzzese (Genova, Italy), **H. Binder** (Wien, Austria), **S. Clarke** (Lausanne, Switzerland), **C. Cisari** (Novara, Italy), **E. Dalla Toffola** (Pavia, Italy), **V. Dietz** (Zurich, Switzerland), **E. Fazzi** (Brescia, Italy), **M. Franceschini** (Rome, Italy), **V. Homberg** (Dusseldorf, Germany), **J. Jacinto** (Lisboa, Portugal), **M. Molinari** (Rome, Italy), **F. Molteni** (Costa Masnaga, LC, Italy), **D. Muresanu** (Bucharest, Romania), **A. Nardone** (Veruno, NO, Italy), **C. Pistorini** (Pavia, Italy), **T. Platz** (Greifswald, Germany), **L. Saltuari** (Innsbruck, Austria), **G. Sandrini** (Pavia, Italy), **M. Serrao** (Rome, Italy), **N. Smania** (Verona, Italy), **C. Tassorelli** (Pavia, Italy), **P. Thoumie** (Paris, France), **C. Werner** (Berlin, Germany), **J. Wissel** (Beelitz-Heilstaetten, Germany)

SCIENTIFIC SECRETARIAT

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CRRNC Neuromotor and Cognitive Rehabilitation Research Centre
University of Verona, Azienda Ospedaliera Universitaria Integrata

GENERAL INFORMATION

Conference venue

Collegio Fratelli Cairoli - Aula Magna
P.zza Cairoli, 1 - 27100 Pavia, Italy
web site: www.collegiocairoli.it/en/

Max participants allowed: 30

Admission to the course will be based on participants' curriculum and order of application.

Please, send Your complete CV to Bquadro Secretariat (CV in EU format is highly recommended) e-mail: info@bquadro-congressi.it

ECM (Educazione Continua in Medicina)

The following professional roles will receive Formation Credits upon attending to the course: **MDs** (Neurology and Physiatry), and **Physiotherapists**

Registration: Deadline july, 7

All participants are required to register using the "online form", which can be found on www.bquadro-congressi.it/index_eng.php and to pay via wire transfer.

Registration fee: € 500,00 + 22% VAT (total € 610,00)

The fee includes:

- Participation to scientific programmes
- Accommodation in single room B&B in september 8 out september 12 (n. 4 nights) at Collegio Cairoli
- Buffet light lunches and dinners for the whole duration of the Course
- ECM Certificate and Certificate of attendance
- English guided tour of Pavia on Thursday 11th September
- Social Dinner on Thursday 11th September

Payment: Deadline july, 21

Bank Transfer only. The wire transfer must be headed to:

(account holder) **Bquadro Congressi S.r.l.**

Via S. Giovanni in Borgo, 4 - 27100 Pavia

Bank INTESA SAN PAOLO - FILIALE PAVIA 2

C.so Garibaldi 52 - 27100 PAVIA

IBAN: IT39E 03069 11304 1000 0000 3103

Codice BIC Swift: BCITITMM

In "Cause" box please write: name, family name and "2014 Summer School fee"

ALL WIRE TRANSFER CHARGES ARE ON THE PARTICIPANT.

Organizing Secretariat

Bquadro Congressi srl

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Coordinamento ECM

Ufficio Formazione e Informazione Mondino

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EUROPEAN SUMMER SCHOOL ON GAIT AND BALANCE REHABILITATION IN NEUROLOGICAL DISEASES

Collegio Fratelli Cairoli

8th-12th September, 2014, Pavia (Italy)



Promoted by:

European Federation of Neurorehabilitation Societies (EFNRS)

Società Italiana di Riabilitazione Neurologica (SIRN)

In collaboration with:

Alumni Association of the Collegio Fratelli Cairoli

University of Pavia

IRCCS C. Mondino Foundation

IRCCS S. Maugeri Foundation



PROGRAMME

Monday 8/09/2014

GAIT DISORDERS AND REHABILITATION

- 12.15 Participants registration
- 12.50 **Welcome**
G. Sandrini (EFNRS President)
N. Smania (SIRN President)
A. Giannetti (President of the Alumni Association of the Collegio Fratelli Cairoli)
- 13.00 **Neuroprotection and neurorehabilitation**
D. Muresanu (Bucharest, Romania)
- 13.30 **Postlesional plasticity: the role of cognitive representation**
S. Clarke (Lausanne, Switzerland)
- 14.00 **Influence of drug treatment in neurorehabilitation**
V. Homberg (Dusseldorf, Germany)
- 14.30 **Assessment of gait disorders**
- Clinical scales
C. Geroin (Verona, Italy)
 - ICF and gait disorders
C. Pistarini (Pavia, Italy)
 - Instrumental assessment
M. Serrao (Rome, Italy)
- 15.30 **Training and discussion of clinical cases**
- 16.20 *coffee break*
- 16.30 **Robotic devices for gait rehabilitation**
- The exoskeleton device: what is the evidence?
L. Saltuari (Innsbruck, Austria)
 - End-Effector
N. Smania (Verona, Italy)
 - FES and FES cycle
F. Molteni (Costamasnaga-LC, Italy)
- 17.30 **Theoretical basis of gait rehabilitation strategies**
N. Smania (Verona, Italy)
- 18.00 **Cues in Gait rehabilitation**
C. Tassorelli (Pavia, Italy)
- 18.20 **Body-weight-supported gait training**
M. Franceschini (Roma, Italy)
- 18.40 **Neuromodulation and gait**
G. Sandrini (Pavia, Italy)
- 19.00-19.30 **Discussion**

Tuesday 9/09/2014

BALANCE DISORDERS AND REHABILITATION

- 8.45 The physiological basis of postural control: from physiology to rehabilitation
A. Nardone (Veruno-NO, Italy)
- 10.00 **Assessment of balance disorders**
- Clinical scales
M. Gandolfi (Verona, Italy)
 - Instrumental assessment
M. Bartolo (Pozzilli-IS, Italy)
- 11.00 **Balance rehabilitation**
I. Springhetti (Pavia, Italy)
- 11.30 **Bedside vestibular evaluation**
M. Versino (Pavia, Italy)
- 11.50 **Risk factors and outcome in falls**
C. Cisari (Novara, Italy)
- 12.10 **The influence of cognitive factors on balance and gait**
V. Varalta (Verona, Italy)
- 12.30 **Strategies to prevent falls**
G. Morone (Rome, Italy)
- 12.50 **Discussion**
- 13.00 *light lunch*
- 15.00-18.30 **Training and case report**
- ## Wednesday 10/09/2014
- ### SPASTICITY AND DYSTONIAS: from the diagnosis to the treatment
- 8.45 **Pathophysiology of spasticity and therapeutic approach**
J. Wissel (Beelitz-Heilstaetten, Germany)
- 9.30 **Gait analysis and botulinum toxin**
J. Jacinto (Lisbon, Portugal)
- 10.00 **Robotic and Botulinum Toxin**
C. Werner (Berlin, Germany)
- 10.30 **Rehabilitation procedures in the management of spasticity**
- Neuromotor techniques, physical treatments and orthosis
A. Picelli (Verona, Italy)
 - Intrathecal infusion
L. Saltuari (Innsbruck, Austria)
 - Epidural stimulation
H. Binder (Wien, Austria)
- 12.00 **Axial and foot dystonia treatment**
C. Tassorelli (Pavia, Italy)
- 12.30 **Functional surgery and post-surgery rehabilitation**
P. Zerbinati (Castellanza-VA, Italy)
- 13.00 *light lunch*
- 15.00 **Normal and impaired control of locomotion: impact in neurorehabilitation**
V. Dietz (Zurich, Switzerland)
- 15.30-18.30 **Training and case report**

Thursday 11/09/2014

INTEGRATED APPROACH TO GAIT AND BALANCE REHABILITATION OF NEUROLOGICAL DISEASES

- 8.45 **Parkinson's disease**
G. Abbruzzese (Genova, Italy)
- 9.30 **Stroke**
N. Smania (Verona, Italy)
- 10.15 **Ataxias**
M. Serrao (Rome, Italy)
- 11.00 **Peripheral neuropathies**
P. Thoumie (Paris, France)
- 11.45 **Discussion**
- 12.00 *light lunch*
- 15.00-17.00 **Training and case report**
- Social events*
- 17.00 **Tour of the City of Pavia**
- 19.30 **Social Dinner**

Friday 12/09/2014

INTEGRATED APPROACH TO GAIT AND BALANCE REHABILITATION OF NEUROLOGICAL DISEASES

- 8.45 **Multiple sclerosis**
MG. Grasso (Rome, Italy)
- 9.30 **Spinal cord injury**
M. Molinari (Rome, Italy)
- 10.15 **Mild and severe brain injury**
I. Passero (Pavia, Italy)
- 11.00 **Cerebral palsy**
E. Fazzi (Brescia, Italy)
- 11.45 **Discussion**
- 12.00 **Final remarks**

TRAINING and CASE REPORT

The training and case report will be performed at the Collegio Fratelli Cairoli, IRCCS C. Mondino and IRCCS S. Maugeri Foundations.

The following topics will be included:

- clinical evaluation and diagnostic algorithm (case presentation)
- gait analysis
- erigo
- FES / FES cycle
- treadmill and BWS
- gait rehabilitation techniques
- vestibular rehabilitation
- perceptual rehabilitation and balance control
- foot mechanical stimulation
- Nordic walking
- Botulinum toxins
- lokomat
- gait trainer
- rewalk
- balance rehabilitation techniques
- stabilometric platform
- neuromodulation
- VRT