NeuroMI
MILAN CENTER FOR NEUROSCIENCE
www.neuromi.it

Fourth NeuroMi International Meeting

in collaboration with Universities of Milan,
Humanitas and Vita e Salute San Raffaele,
with National Research Council and with Scientific Institutes Auxologico,
Besta, Don Gnocchi, Galeazzi, Policlinico and San Raffaele

UNIVERSITÀ DEGLI STUDI DI MILANO BICOCCA

Brain Stimulation and Brain Plasticity: from Basic Research to Clinical Practice

Milan, November 21-23, 2018

Sin SOCIETÀ ITALIANA DI NEUROLOGIA

SINdem Associazione Autonoma Aderente alla SIN per le Demenze

SIP. Dip. Società Italiana Psichiatria delle Dipendenze Sezione speciale S.I.P.

SIPF

CONGRESS VENUE

University of Milano-Bicocca
Aula Magna, Building U6,
Piazza dell'Ateneo Nuovo, 1, Milan

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NEUROMI 2018 INTERNATIONAL MEETING HIGHLIGHTS

The **Milan Center for Neuroscience** (www.neuromi.it) was founded in 2014 by the University of Milano-Bicocca to promote high-level multidisciplinary research and education in the field of Neuroscience, fostering collaborations among clinical, molecular, cognitive, imaging, computational and biotechnological fields.

It gathers now more than 300 neuroscientists from 8 Departments of Bicocca and other Universities and Research Institutes of the large Milan Area.

This is the **fourth NeuroMi International Meeting**. Previous ones have been: 2015-"Imaging of the brain", 2016-"Prediction and prevention of dementia: new hope", 2017 -"Personalised Medicine in Multiple Sclerosis", all organized with major international experts and with stimulating interdisciplinary views.

This meeting will follow the successful **multidisciplinary approach**, gathering basic scientists, neurologists, neurosurgeons, psychiatrists, psychologists, rehabilitation specialists. This fertile cross-disciplinary meeting will also provide the opportunity to interact with top level scientists in each field.

The field of **brain stimulation is advancing rapidly** with breakthroughs in basic, translational, and clinical research. The latest and most important research will be presented at this meeting across these domains, starting with mechanisms of brain plasticity, and going through applications of non-invasive (electrical and magnetic) cortical stimulation to surgical deep brain stimulation in neurological and psychiatric disorders.

Brain stimulation methods are rapidly transforming research on brain mechanisms, from the molecular to the behavioral, and **offer new approaches to therapeutics and rehabilitation for brain disorders**. In many ways, the field of brain stimulation represents a paradigm shift, integrating and sometimes replacing the prevalent neuropsychopharmacological approaches of the past several decades.

Topics and Key words: Brain Plasticity-Cognitive enhancement-Computer modeling of brain stimulation methods-Deep brain stimulation-Neuropsychiatric disorders (dementia, depression, movement disorders, multiple sclerosis, obsessive compulsive disorders, pain, stroke, substance abuse)-Neurophysiology-Neurostimulation-Nutraceuticals-Transcranial alternating current stimulation (tACS)-Transcranial direct current stimulation (tDCS)-Transcranial magnetic stimulation (TMS)-Vagus nerve stimulation

Carlo Ferrarese,
Scientific Director, NeuroMi
On Behalf of the Scientific Committee

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Tuesday, November 20th

PRE-MEETING WORKSHOP

Practical training of Neurostimulation with Transcranial Direct-Current Stimulation

13:30	Registration
14:00	Welcome and Presentation Giuseppe Vallar
14:10	Introduction to the workshop Carlo Miniussi
14:40	Overview of tES and TMS systems Davide Corradini
15:10	Neuronavigation systems Filippo Carducci
15:40	*Coffee Break*
16:00	Transcranial Electrical Stimulation (tES) Alberto Pisoni
16:30	Transcranial Magnetic Stimulation (TMS) in clinical practice Giacomo Koch
17:00	Hands-on Session
18:00	**End of the workshop**

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Wednesday, November 21st

10:00-14:00 **Annual Meeting of Milan Center for Neuroscience**

Selected oral and poster presentation from NeuroMi members on all research areas of the Center

Non members are also welcome

14:30-15:00 **Inauguration**

Cristina Messa, Rector University of Milano-Bicocca

Carlo Ferrarese, Scientific Director, Milan Center for Neuroscience

Monica Di Luca, President of the European Brain Council

First Scientific Session

Biological basis of neuroplasticity

Chair: Annamaria Colangelo and Monica Di Luca

15:00 Neuronal circuits, plasticity and behaviour
Camilla Bellone

15:30 Stress, neuroplasticity and mood disorders
Marco Riva

16:00 Astrocytic regulation of synaptic function
Andrea Volterra

16:30 *Coffee Break*

Strategies to modulate neuroplasticity

Chair: Michela Matteoli and Marina Saresella

17:00 Nutraceuticals: Pharmacological cognitive enhancement
Giovanni Scapagnini

17:30 Neurostimulation: neurogenesis and neuronal repair
Antonino Cattaneo

18:00-19:00 **Selected oral communications on the topic**

19:30 *Welcome Cocktail*

Thursday, November 22nd

Non-invasive brain stimulation -NIBS- (Transcranial Electrical and Magnetic Stimulation): effects in the normal brain and in neuropsychiatric disorders

Morning Session

Chair: Giuseppe Vallar and Alberto Priori

9:00	Neurobiological basis of tDCS-induced plasticity Brita Fritsch
9:30	Neurophysiology and plasticity mechanisms of NIBS Paolo Maria Rossini
10:00	NIBS: motor enhancement Janine Reis
10:30	NIBS: interacting with brain oscillations to modify perception and cognition Gregor Thut
11:00	*Coffee Break*
11:30	NIBS in disorders of consciousness Marcello Massimini
12:00	NIBS in pain treatment Filippo Brighina
12:30	NIBS in movement disorders Angelo Quartarone
13:00	NIBS in multiple sclerosis Letizia Leocani
13:30-14:30	*Lunch and Poster View*

Thursday, November 22nd

Afternoon Session
Chair: Nadia Bolognini and Cesare Cerri

14:30-15:30 Selected oral communications on NIBS

15:30 *Coffee Break*

16:00 NIBS in dementia and psychiatric disorders
Giacomo Koch

16:30 NIBS in stroke recovery
Christian Grefkes

17:00 NIBS, vision and rehabilitation of visual deficits
Angelo Quartarone

17:30 Ethical issues in non invasive and surgical brain stimulation
Vittorio Sironi

18:00 **General discussion**
Discussants: Leonor J. Romero Lauro and Luigi Tesio

Friday, November 23rd

Surgical Neuromodulation in Neurology and Psychiatry

Morning Session
Chair: Carlo Ferrarese and Erik Sganzerla

9:00 DBS in neurology and psychiatry: a historical overview
Marwan Hariz

9:30 DBS: methodological issues and technological innovations
Michael Schuepbach

10:00 DBS: electrodes as a window in brain functions
Alberto Priori

10:30 DBS and functional neuroimaging: functional effects and the search for ideal DBS targets
Eraldo Paulesu

11:00 *Coffee Break*

11:30 DBS in Parkinson's Disease and essential tremor: role of the neurologist and the neurosurgeon
Angelo Antonini, Andrea Landi

12:00 DBS and focused ultrasound in Dystonia and in cluster headache
Angelo Franzini

12:30 DBS in Alzheimer's Disease
Jens Kuhn

13:00 **General discussion**
Discussants: Roberto Eleopra and Leonardo Lopiano

13:30-14:30 *Lunch*

Friday, November 23rd

Afternoon Session
Chair: Massimo Clerici and Lorenzo Bello

14:30-15:30 Selected oral communications on NIBS

15:30 *Coffee Break*

16:00 DBS in obsessive-compulsive disorders
Chris Bervoets

16:30 DBS in Gilles de la Tourette syndrome: 18 years on
Domenico Servello

17:00 DBS and VNS in depression
Bernardo Dell'Osso

17:30 DBS stimulation in Substance Abuse
Veerle Visser-Vandewalle

18:00 **General discussion**
Discussants: Mauro Porta and Antonio Vita

18:30 **Meeting closure**

GENERAL INFORMATION

Congress venue

University of Milano - Bicocca
Great Hall - Building U6
Piazza dell'Ateneo Nuovo, 1
Milan

Directions

By train

The station closest to the Università degli Studi di Milano-Bicocca is Milano Greco Pirelli, which can be directly accessed by these railway lines:

S9	S8
Saronno-Albairate	Lecco - Milan - Pta Garibaldi
S11	R trains
Chiasso - Milan Pta Garibaldi	Milan - Treviglio-Brescia
	Milan - Bergamo via Carnate
	Milano - Monza - Molteno - Lecco
	Milano - Lodi - Piacenza
	Milano - Pavia - Voghera

The Milano Greco Pirelli station is reachable from:

- Milano Porta Garibaldi in about 7 minutes with 4 trains departing per hour
- Milan Lambrate in about 7 minutes using line S9 and R trains to/from Brescia, plus a few trains departing from Piacenza, Voghera

By taking Viale dell'Innovazione, the street next to the Arcimboldi theatre, you will reach Piazza dell'Ateneo Nuovo and buildings U6/U7.
From Central Station you can take bus 87.
For more information please visit this website: www.trenitalia.it

By plane

From Milan Linate airport, take bus 73 towards S. Babila M1. At the last stop continue on line 1 of the Metro.
Those arriving at Milan Malpensa airport can take the Malpensa Express shuttle train. We advise you to use trains that stop at Milan Porta Garibaldi station.
Alternatively from Cadorna Station, take line 1 of the Metro, in the direction of Sesto 1° Maggio F.S.

By car

From the Turin-Venice motorway, exit "Milano – viale Zara" and take the direction towards 'Milano Centro'.
After passing the sign indicating the city of Milan, at the StarTourist Hotel on the left, take Viale Sarca, the first street parallel to the one you find yourself on, on the left side.
Continuing along Viale Sarca in the same direction you will find the University on your left after about one kilometre.

Registration

Single individuals will only be able to register online through the site www.neuromi2018.it. Before October 1rst 2018 they will be able to take advantage of the subsidised fee.
The fee includes: participation in the scientific studies, conference kit, certificate of attendance, opening ceremony, welcome cocktail, working buffet lunches.

Category	Until 1st October	From October 2nd
Medical registration fee	€ 350	€ 400
Other professions registration fee	€ 250	€ 300
Junior Specialist Registration fee/under 35 years old	€ 150	€ 150
NeuroMi Members	free registration	

Fees are inclusive of 22% iva (tax).

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CME Accreditation

The National Commission for Continuing Education has welcomed the provisional accreditation of the SIN (Italian Society of Neurology) as CME PROVIDER (assigned number 1802).
The ECM Accreditation for Congress "Brain Stimulation and Brain Plasticity: from Basic Research to Clinical Practice" has been requested for the following positions:
Psychologist
Medical Doctor (topic areas: neurologist, clinical biochemistry, pharmacology, medical genetics, geriatric medicine, general medicine, nuclear medicine, neurosurgery, neurology, psychiatry, radiology, food science)
Neurofisiopathology technician
All professions and disciplines not set out in the previous list are excluded from the acquisition of CME credits, but can still take part in the event (provided the classroom has not reached the maximum limit of attendance required under accreditation).

Submission of abstracts

During the fourth International Meeting of the Milan Center For Neuroscience (NEUROMI) there will be scientific sessions devoted to oral communication and posters.
Oral communications will be selected from the abstracts submitted on line to the scientific secretariat and presented in the main scientific session.
All abstracts must be submitted before **10th September 2018**
Find out more http://abstract.neuromi2018.it

Posters instruction

Posters have to be affixed on the first day of the congress.
Posters will remain on display for the whole congress.
Posters' dimension: 70 cm. x 100 cm.

Language

The official language of the conference is English.

Congress website

www.neuromi2018.it

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