# NON-INVASIVE BRAIN STIMULATION IN PSYCHIATRY



# SCIENTIFIC DIRECTOR

# Prof. Stefano Pallanti

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# SCIENTIFIC RATIONALE

Non-invasive brain stimulation (NIBS) techniques represent widely used physical therapies in neurology and psychiatry. Among the most widely adopted are those based on the use of magnetic fields (TMS, Transcranial Magnetic Stimulation) or electromagnetic fields (tDCS, transcranial Direct Current Stimulation) applied to the scalp. In both cases, brain activity is modulated in discrete areas below the site of delivery through activation or inhibition of the excitability threshold or neuronal discharge.

Both TMS and tDCS have few contraindications, few side effects and validated efficacy across a wide range of disorders (depression, OCD, chronic pain, Parkinson's disease, motor stroke, addiction, etc.): for these disorders the efficacy level is very high (level A) and where this is not reached there are still measures of approvals from regulatory bodies (FDA, NICE, etc.). For depression and OCD, TMS therapy is approved for drug-resistant disorders, but this does not mean that TMS is an alternative to pharmacological treatment; if anything, in many cases it represents an excellent support to improve the outcomes in combination with pharmacological therapy. Regarding schizophrenia, the most recent international guidelines identify NIBS with different levels of efficacy on the negative symptoms and auditory hallucinations present in this disorder: in particular, the level of recommendation is C for TMS (probable efficacy) and B for tDCS (possible efficacy).

As such, guidelines take a long time to be published, and therefore refer to studies conducted in the years prior to their publication or revision. However, the most recent publications confirm the efficacy of these techniques while also supporting the favourable association with concomitant pharmacological treatments. Both technologies involve a series of therapeutic sessions, the number and frequency of which depend on the protocols applied, but while TMS treatments are outpatient, for tDCS, remotely controlled systems allowing home treatment are available.

# FACULTY\_

### **SPEAKERS**

- 1. Chris Baeken Research Professor, University of Ghent, Belgium
- Jérôme Brunelin Tenured-Researcher, INSERM U1028, Centre de Recherche en Neurosciences de Lyon Bron, France
- **3.** Bernardo Dell'Osso Professor of Psychiatry, University of Milan Director of Department of Mental Health and Addictions, ASST Sacco-Fatebenefratelli, Milan, Italy
- 4. Giorgio Di Lorenzo Associate Professor of Psychiatry, University of Tor Vergata, Rome, Italy
- 5. Giovanni Martinotti Associate Professor, "G. D'Annunzio" University of Chieti-Pescara, Italy
- Stefano Pallanti Professor at "Albert Einstein College of Medicine", New York, USA and Director of "Istituto di Neuroscienze", Florence, Italy
- 7. Emmanuel Poulet Lyon Neuroscience Research Center, PSYR2 Team University of Lyon, CH Le Vinatier - Responsable des Urgences psychiatriques de l'Hôpital Edouard Herriot Lyon, France

#### TRAINERS

- 1. Simone Di Pietro Psychiatrist, Head of dTMS Villa Gughi, Rocca Priora, Rome, Italy
- 2. Giorgio Tonon Expert in Education Sciences, Turin, Italy

# THURSDAY, SEPTEMBER 22<sup>nd</sup>

Welcome and Course presentation 02.00 - 02.20 pm Prof. Stefano Pallanti - Prof. Bernardo Dell'Osso

Session 1 – Introduction and background Chair: Prof. Bernardo Dell'Osso – Co-Chair: Prof. Giovanni Martinotti

02.20 - 02.45 pm	Brain Stimulation in Mental Health: state of the art and perspectives Prof. Jérôme Brunelin
02.45 - 03.10 pm	Treatment-resistance OCD: pharmacological and TMS approach Prof. Stefano Pallanti
03.10 - 03.35 pm	Use of TMS for the treatment of positive and cognitive symptoms in Schizophrenia Prof. Giorgio Di Lorenzo
03.35 - 04.00 pm	Cognitive and negative symptoms in Schizophrenia: what's new? Prof. Stefano Pallanti
04.00 - 04.30 pm	Break

# Session 2 - Fields of clinical application Chair: Prof. Stefano Pallanti - Co-Chair: Prof. Giorgio Di Lorenzo

04.30 - 04.55 pm	TMS and Negative Symptoms of Schizophrenia Prof. Emmanuel Poulet
04.55 - 05.20 pm	TMS in Depression: Accelerated vs Standard Protocols Prof. Bernardo Dell'Osso
05.20 - 05.45 pm	TMS in Addiction Psychiatry: state of the art and perspectives Prof. Giovanni Martinotti
05.45 - 06.10 pm	Biological effects and safety of accelerated TMS Prof. Chris Baeken
06.10 - 06.50 pm	Panel Discussion and Q&A

# FRIDAY, SEPTEMBER 23rd

# Session 1 – Training Session

09.00 - 09.20 am	Introduction Prof. <mark>Stefano Pallanti</mark>	
09.20 am - 12.00 pm	Neuro modulation systems with TMS: methods of use and practice with Butterfly coil and H-coil Trainers: Dr. Simone Di Pietro, Dr. Giorgio Tonon	
12.00 - 12.10 pm	Break	
12.10 - 01.00 pm	Panel discussion and Conclusive remarks Chair: Prof. Stefano Pallanti Prof. Chris Baeken, Prof. Jérôme Brunelin, Prof. Bernardo Dell'Osso, Prof. Giovanni Martinotti, Prof. Emmanuel Poulet	
01.00 - 01.10 pm	Take home messages	
01.10 - 01.40 pm	Feedback Questionnaire & Learning Questionnaire	

## **EXPECTED LEARNING OUTCOMES**

After attending the event participants will be able to:

- analyse and evaluate the latest evidence, guidelines and protocols on NIBS techniques, particularly TMS for the treatment of conditions like schizophrenia, depression, OCD, chronic pain, Parkison's disease, motor stroke, addiction;
- manage advanced skills on the use of NIBS techniques, particularly the TMS terapy, in the treatment of a wide range
  of disorders (schizophrenia, depression, OCD, chronic pain, Parkison's disease, motor stroke, addiction);
- develop and apply an interdisciplinary clinical approach to the treatment of conditions like schizophrenia, depression, OCD, chronic pain, Parkinson's desease, motor stroke, addiction, using non-invasive brain stimulation techniques, particularly TMS terapy, with concomitant pharmacological treatments.

### THE AIM OF THE COURSE

The course aims to:

- increase knowledge of studies on the role of NIBS techniques in the treatment of psychiatric and neuropsychiatric disorders and to foster an integrated interdisciplinary clinical approach, using both NIBS techniques and pharmacological therapy, for the treatment of a different conditions like schizophrenia, addiction, obsessive compulsive disorder, depression, OCD, chronic pain, Parkinson's disease, motor stroke etc.
- review the latest evidence, guidelines and protocols on NIBS techniques, particularly TMS and tDCS, for the treatment of conditions like schizophrenia, addiction, obsessive compulsive disorder, depression, OCD, chronic pain, Parkinson's disease, motor stroke etc.
- <sup>4</sup> guide clinicians in deciding on the use and clinical effects of these treatments.

# TARGET AUDIENCE

#### **Psychiatric Specialists**



#### ACCREDITATION STATEMENT AND CREDIT DESIGNATION

The NON-INVASIVE BRAIN STIMULATION IN PSYCHIATRY: THE CASE OF TMS, Roma, Italy, 22/09/2022-23/09/2022 has been accredited by the European Accreditation Council for Continuing Medical Education (EACCME®) with 7 European CME credits (ECMEC®s). Each medical specialist should claim only those hours of credit that he/she actually spent in the

educational activity. Through an agreement between the Union Européenne des Médecins Spécialistes and the American Medical Association, physicians may convert EACCME® credits to an equivalent number of AMA PRA Category 1 CreditsTM. Information on the process to convert EACCME® credit to AMA credit can be found at www.ama-assn.org/education/earn-credit-participation-international-activities.

Live educational activities, occurring outside of Canada, recognised by the UEMS-EACCME® for ECMEC®s are deemed to be Accredited Group Learning Activities (Section 1) as defined by the Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada.

#### **CREDIT BREAKDOWN**

Each participant can only receive the number of credits he/she is entitled to according to his/her actual participation at the event once he/she has completed the feedback form.

Please find below the breakdown of ECMEC®s per day:

- 22.09.2022 4.00
- 23.09.2022 3.00

#### VENUE

Barceló Aran Mantegna Hotel, Via Andrea Mantegna 130, 00147, Rome

### REGISTRATION

Participation is free but you have to register on

http://www.letscome3.it/pec-events/non-invasive-brain-stimulation-in-psychiatry-the-case-of-tms/ After registration, the organising secretariat will communicate additional information about participation.

Organizing Secretariat



