1st Advanced Residential Course in Neonatal Epileptology and Neurophysiology

Joint Neonatal Epileptology and Neurophysiology (Joint-NEN)

Joint event of the European Paediatric Neurology (EPNS) Italian Pediatric Neurology (SINP) and Italian Neonatology (SIN - Clinical Genetic Study Group) Societies

April 16-20 2018, Catania
This event has been approved as part of the educational activities of the Second Level Master in Neonatal and Pediatric Neurology, of the University of Palermo
HONORARY PRESIDENTS
Giovanni Corsello
Lorenzo Pavone

PRESIDENTS OF THE COURSE
Raffaele Falsaperla
Martino Ruggieri

SCIENTIFIC BOARD
Raffaele Falsaperla
Agnese Suppiej

COURSE ATTENDEES
• Neonatologists
• Infantile Neuropsychiatrists
• Neurophysiopathology Technicians

PARTICIPANTS BASIC SKILLS
Participants who will take part in the course must have the following basic expertises:
• Specialization in Pediatrics with orientation in Neonatology
• At least 6 months documented work experience in a Neonatal Intensive Care Unit
• Advanced knowledge of English language

EDUCATIONAL AIMS
Provide participants with the appropriate cultural tools in the management of infants with epileptic pathology, through interdisciplinary sessions with specialists in this field.
COURSE CONTENT
The course will consist of thematic sessions consisting of lectures in Italian and English language about the following topics:
• anatomical, neurophysiological, biochemical and pharmacological notions with advanced neurophysiological notions.
• interdisciplinary notions with specialists who revolve in sharing the epileptic infant with future “scenarios” of innovative therapies
• epileptic genetic diseases

JOB SKILLS ACQUISITION
With this course the participant will acquire the competence in the diagnostic-therapeutic management of the new epileptic infant.

DURATION
The course will last five days and will be divided into thematic sessions.

COURSE METHODS
- lectures in English and Italian language
- discussion and comparison between participants
- evening learning audits

LEARNING VERIFICATION
The course includes some evenings in which the participants, helped by a tutor, will discuss the topics debated during the day and will answer to questions asked by the tutor to verify the learning of the course contents.

EVENT VENUE
Villa Citelli
Via Salvatore Tomaselli, 31
95124 Catania
Dear Colleagues,

Our advanced course of Neonatal Epileptology and Neuropghysiology is addressed to neonatologists, child neurologists, neuropsychiatrists, and clinical neurophysiology technicians to provide the appropriate cultural tools on the management of infants with epileptic disorders. The idea is to start a partnership with EPNS, SINP and SIN devoted to permanent education on neonatal neurology by means of annual itinerant courses. The course is based on anatomical, neurophysiological, biochemical and pharmacological notions together with advanced neurophysiological topics. The “gold” standard to diagnose epileptic diseases remains the EEG that in Neonatal Intensive Care Units has become a very useful tool for the diagnostic and therapeutic management of neonatal seizures. The course includes practical interactive clinical sections on genetic epileptic encephalopaties with the intent to underlye the clinical clues for diagnosis and on practical use of EEG.

In addition, we also plan interdisciplinary sessions with multidisciplinary physicians specialist on different aspects of infant epilepsy, in order to provide future scenarios of innovative therapies. We will focus on the specific features of neonatal seizures, addressing special sessions on the diagnosis of subtle seizures and their early recognition. Moreover, we will address our attention on the autonomic signs and symptoms related to neurologic diseases, as early symptoms of epilepsy, when clinical and EEG signs are not still evident. Finally, there will be also a session on genetic diseases, which are considered an important challenge to reduce mortality and morbidity of nenates with epileptic diseases.

All these sessions will be combined with the presentation of the most recent literature data, in order to provide topics for further multicenter research networks. We hope you will enjoy our program.

Raffaele Falsaperla and Martino Ruggieri
FACULTY

Giuseppe Alletto, Trapani
Giuseppe Barbagallo, Catania
Giuseppe Belfiore, Catania
Alessandro Borghesi, Pavia
Alberto Burlina, Padova
Nicola Cassata, Palermo
Maria Vincenza Catania, Catania
Taeun Chang, USA
Domenico Cipolla, Palermo
Giancarlo Conoscenti, Catania
Giovanni Corsello, Palermo
Giulia Cupitò, Catania
Domenico Di Bella, Catania
Alessandro Di Benedetto, Catania
Vincenzo Di Benedetto, Catania
Matteo Di Capua, Naples
Gianfranco Di Fede, Catania
Robertino Dilena, Milan
Giuseppa Di Stefano, Catania
Filippo Drago, Catania
Maurizio Elia, Troina - En
Raffaele Falsaperla, Catania
Fabrizio Ferrari, Modena
Agata Fiumara, Catania
Alberto Fischer, Catania
Eloisa Gitto, Messina
Mariangela Gulisano, Catania
Daniela Longo, Roma
Silvia Lori, Florenze

Paolo Mainardi, Genoa
Silvia Marino, Catania
Simona Marino, Catania
Laura Mauceri, Catania
Carlo Minetti, Genoa
Finbar O’Callaghan, UK
Marco Palumbo, Catania
Lorenzo Pavone, Catania
Piero Pavone, Catania
Ettore Piro, Palermo
Francesco Pisani, Parma
Andrea Praticò, Catania
Melania Puddu, Cagliari
Federico Raviglione, Milan
Renata Rizzo, Catania
Alessandro Rodonò, Catania
Claudio Romano, Messina
Martino Ruggieri, Catania
Marco Saporito, Catania
Giuseppe Sortino, Catania
Pasquale Striano, Genoa
Mauro Stronati, Pavia
Agnese Suppiej, Padua
Francesco Tumminelli, Enna
Alberto Villani, Rome
Giovanna Vitaliti, Catania
Dimitrios Zafeiriou, Greece
Sameer Zuberi, Glasgow (UK)
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SCIENTIFIC PROGRAM

Monday, April 16

09.00  **Authorities Welcome**  
*Francesco Basile*  
*Rector, University of Catania*  
*Giuseppe Sessa*  
*President, School “Faculty of Medicine”, University of Catania*  
*Francesco Purrello*  
*Director, Department of Clinical and Experimental Medicine, University of Catania*  
*Antonino Rapisarda*  
*Director, Maternal-Infantile Department, A.O.U. “Policlinico V. E.”, University of Catania*  
*Massimo Buscema*  
*President, Catania Medical Order*

**Scientific Societies Welcome**  
*Alberto Villani*  
*President of the Italian Society of Paediatrics*  
*Emilio Franzoni*  
*President of the Italian Society of Paediatric Neurology*  
*Mauro Stronati*  
*President of the Italian Society of Neonatology*  
*Sameer Zuberi*  
*President of the European Paediatric Neurology Society*

09.30  **Brain development from fetus to neonate: the anatomic perspective**  
Chairman: *Domenico Di Bella, Renata Rizzo*  
*Foetal embriology*  
*Martino Ruggieri*  
*Basic Neuroimaging*  
*Alessandro Di Benedetto*
SCIENTIFIC PROGRAM

MRI studies in term neonates
Giuseppe Sortino

MRI studies in late preterm neonates
Daniela Longo

Electrophysiological correlates of brain development
Agnese Suppiej
Discussant: Giuseppe Belfiore, Alessandro Rodonò

11.30  Prenatal diagnosis of cortical abnormalities
Chairman: Gianfranco Di Fede
The ultrasounds first alert
Marco Palumbo
Ultrasound evidence of cortical abnormalities
Giancarlo Conoscenti
Discussant: Domenico Di Bella

13.00  Lunch

14.30  Neurophysiology of the pre-term neonate
Chairman: Giulia Cupitò
Normal EEG: from 25 to 32 weeks
Simona Marino
The EEG of late pre-term
Matteo di Capua
Abnormal EEG patterns and diagnosis
Robertino Dilena
The EEG and prognosis
Ettore Piro
Discussion

18.00  End of the day
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Tuesday, April 17

09.00  **Pathophysiology**
Chairman: Raffaele Falsaperla  
- Neurobiology of networks and receptors in neonates  
  Maria Vincenza Catania  
- Update on “autonomic” seizures  
  Giovanna Vitaliti  
Discussant: Eloisa Gitto

11.00  **Lectures**
Chairman: Lorenzo Pavone  
- Overlaps between metabolic and structural disorders  
  Giovanni Corsello  
- Early onset genetic epileptic encephalopathies  
  Sameer Zuberi

13.00  Lunch

14.30  **Seizures: from fetus to neonate**
Chairman: Mauro Stronati  
- Fetal seizures: which diagnosis?  
  Raffaele Falsaperla  
- Elettro-clinical classification of neonatal seizures  
  Agnese Suppiej  
- Post asphyxia West Syndrome  
  Finbar O’Callagan  
- Video-EEG recordings in symptomatic neonatal seizures  
  Fabrizio Ferrari  
Discussant: Giuseppa Di Stefano

16.30  **Focus: Seizures in the NICU: Who, What, Why, and When?**
Taeun Chang

17.30  End of the day
Tuesday April 17

9.00 **Epilepsy in metabolic disorders**
Chairman: **Agnese Suppiej**
**Neurotransmitter disorders**
Alberto Burlina
**Pyridoxine dependent seizures and borderland:**
ALDH7A1, PNPO, PROSC
Marco Saporito
**Glucose transporter related seizures**
Pasquale Striano
Discussant: **Francesco Tumminelli**

12.00 **Focus: Treatable metabolic epilepsies**
Dimitrios Zafeiriou

13.00 Lunch

14.00 **Neurophysiological tools for diagnosis and monitoring**
Chairman: **Maurizio Elia**
**Montages and tricks**
Giulia Cupitò
**Video poli EEG-EMG: neurophysiological patterns**
Silvia Lori
**aEEG-Video EEG integration**
Matteo Di Capua
**Unsolved cases: V-EEG Diagnostic Tools**
Francesco Pisani
**Interpretation and pitfalls**
Agnese Suppiej, Raffaele Falsaperla

17.00 **Keynote: Epilepsy in Neurocutaneous Disorders**
Martino Ruggieri

18.00 End of the day
## SCIENTIFIC PROGRAM

### Thursday April 19

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<th>Time</th>
<th>Session</th>
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<td>9.00</td>
<td><strong>Clinico-diagnostic overview in early onset epilepsy</strong></td>
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<td>Chairmen: Carlo Minetti</td>
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<td><strong>Genotype/phenotype correlation: examples of difficult cases</strong></td>
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<td><strong>Diagnostic role of whole exome sequencing (WES)</strong></td>
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<td><strong>Practical section of clinical cases</strong></td>
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<td>Discussant: Piero Pavone</td>
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<td>12.00</td>
<td><strong>Focus: Update on CLN2</strong></td>
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<td>Introduces: Agata Fiumara</td>
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<td><strong>Epileptic red flags</strong></td>
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<td>Silvia Marino</td>
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<td>13.00</td>
<td>Lunch</td>
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<td>14.00</td>
<td><strong>Motor phenomena: Neurophysiological diagnosis in practice</strong></td>
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<td><strong>Epileptic spasms</strong></td>
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<td><strong>Ocular phenomena</strong></td>
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<td>Raffaele Falsaperla</td>
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<td>17.00</td>
<td>End of the day</td>
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09.00  **Pharmacological treatment**  
Chairman:  **Nicola Cassata**  
- **Principles of pharmacological treatment: from pharmacokinetics to pharmacodynamics**  
  Filippo Drago  
- **Old and new antiepileptic drugs**  
  Federico Raviglione  
- **Long term neurodevelopmental effects of antiepileptic drugs**  
  Raffaele Falsaperla  
- **Neonatal status epilepticus: definition and treatment**  
  Agnese Suppiej  
- **Disease progression and neuroprotection in epileptic encephalopathies**  
  Francesco Pisani  
- **Surgery in neonatal symptomatic epilepsy**  
  Giuseppe Barbagallo  
- **Pharmacometabolomics: “future streets”**  
  Melania Puddu  

Discussant:  **Giuseppe Alletto, Domenico Cipolla**
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13.00  Lunch

14.30  Lecture: Neonatal Neurocritical Care - Providing Out of the Box Options for Newborns with Seizures
       Taeun Chang

15.30  Special section on Nutrition
       Chairman: Alberto Fischer
       Chetogenic diet in neonatology: useful or not?
       Laura Mauceri
       Gut brain axis: its impact on epileptogenesis
       Paolo Mainardi
       Special diet for special neonates
       Claudio Romano
       Management of neurological patients: the surgical view
       Vincenzo Di Benedetto
       Focus: Clinical Follow up of the preterm neonate
       Mariangela Gulisano

19.00  End of the Course
REGISTRATION
To participate in the course you must complete the application form (in italian) available online at the website www.pediatriasicilia.it, submitting your resume. Scientific committee will examine the requests received and will select the attendees. The selected participants, after receiving communication from the Organizing Secretariat, must complete their registration by paying the registration fee through the website, within 7 days from the date of communication.

Registration fee (VAT included): € 1000,00

Registration fee includes: Conference kit, access to ECM credits, 5 lunches, certificate of participation, hotel accommodation for 5 nights in Catania.

ECM (Continuing Medical Education)
This educational activity is accredited by the Italian National Commission for Continuing Education, for the following professions: Doctors of the following branch of knowledge: Neonatology, Infantile Neuropsychiatry, Neurology, Pediatrics, Pediatricians; and Neurophysiopathology Technician. The course was accredited for 25 participants and for 32 training hours and obtained 32 ECM credits.

To issue credits attendee must: attend 90% of the total training hours of the event; register at the entrance and exit by scanning the barcode on his personal badge; pass the learning verification test at least 80% correct answers.

In the event that the registration is offered by a company it is necessary that the participant deliver the invitation received from the company or fill out and sign a declaration that will be delivered at the time of registration.

Servizitalia does not assume responsibility for any failure to award credits by the Ministry in case of incorrect or partial completion of the forms.

ORGANIZING SECRETARIAT
SERVIZITALIA - via Salvatore Puglisi 15, 90143 Palermo
tel. 091 6250453 - fax 091 303150 - www.servizitalia.it
Perchè iscriversi:
**Iscrizioni online** agli eventi in maniera comoda, rapida e sicura.  
**Attestati** di partecipazione ed ECM scaricabili dall’area personale.  
**Materiale didattico** degli eventi a cui ha partecipato.  
**Aggiornamenti periodici** sugli eventi pediatrici e neonatologici.

Le operazioni di registrazione richiedono solo pochi minuti!  
Lo staff Servizitalia è sempre a disposizione per fornire assistenza sia in fase di registrazione che di fruizione dei servizi del portale.

Registrati ora!
Un particolare ringraziamento alle aziende che sostengono in modo non condizionato questo evento formativo.