











**Department of Biomedical and Neuromotor Sciences** University of Bologna, Physiology Building, Piazza di Porta San Donato 2, 40126 Bologna, Italy

First day session In the search of a therapy for the CDKL5 disease: joint efforts of the scientific community.

Second day session Characterization of the CDKL5 disease: international clinical network.

Third day session The family: how to help our children. Therapies for rehabilitation

SERVIZIO SANITARIO REGIONALE **EMILIA-ROMAGNA** 

Istituto delle Scienze Neurologiche

SCIENZE BIOMEDICHE E NEUROMOTORIE - DIBINEM

# Second International Meeting of the CDKL5 Associations April 25-27, 2014 - Bologna, Italy

FRIDAY, APRIL 25, 2014		Free medical examination by
8:30-9:00	REGISTRATION	appointment
9:00-9:15	<b>Official opening of the meeting</b> Renata Bartesaghi, University of Bologna	Gobbi and Renieri
9:15-9:30	<b>Emilia Romagna Area - Rare diseases</b> Elisa Rozzi, Matteo Volta - Italy	
9:30-10:00	<b>Telethon and Patient - Organizations: synergistic actions for the progress of science</b> Francesca Sofia, Telethon Foundation	
Session 1. 0	Chairs: Renata Bartesaghi, Maurizio Giustetto	
10:00-10:30	<b>Modeling CDKL5 Disorder in Genetically Modified Mice</b> Judy Wang, University of Pennsylvania School of Medicine	
10:30-11:00	Rett syndrome-related genes share common pathogenic pathways Maurizio Giustetto, Università di Torino, Torino - Italy	
11:00-11:30	Impaired cognitive function and hippocampal neuroge Disorder	enesis in a new model of CDKL5
	Elisabetta Ciani, Department of Biomedical and Neuromoto Bologna - Italy	or Sciences University of Bologna,
Session 2. (	Chair: Laura Calzà	
11:30-12:00	<b>Dendritic spine dynamics in cortical neurons of CDKL5</b> Tommaso Pizzorusso, Università di Firenze, Firenze - Italy	null mice
12:00-12:30	<b>Cerebellar function and networks in CDKL5 KO mouse</b> Laura Calzà, University of Bologna, Bologna - Italy	
12:30-13:00	<b>Synaptic function of CDKL5</b> Zhi-Qi Xiong, Institute of Neuroscience and State Key Labo Institutes for Biological Sciences, Chinese Academy of Scie	
13:00-14:30	LUNCH TIME	
Session 3. (	Chairs: Giuseppe Gobbi, Pawel Stankiewicz	
14:30-15:00	Recent gene therapy approaches in models of Rett sync Stuart Cobb, University of Glasgow, Glasgow - UK	drome
15:00-15:30	GluD1 is a common altered player in neuronal differentia and CDKL5-mutated iPS Alessandra Renieri, Azienda Ospedaliera Universitaria Sene	
15:30-16:00	Synaptic synthesis, dephosphorylation and degradadevelopmentally regulated NMDA-dependent control Nicoletta Landsberger, Department of Theoretical and Appli Busto Arsizio (VA) - Italy	of CDKL5
16:00-16:30	A novel subcellular meeting point for MeCP2 and CDKL5: in normal and pathological conditions Charlotte Kilstrup-Nielsen, Department of Theoretical and Insubria Busto Arsizio (VA) - Italy	-
16:30-17:00	<b>Mosaic exonic deletions and gene duplications of</b> Pawel Stankiewicz, Baylor College of Medicine, Houston TX	
17:00-17.30	<b>Science and pseudoscience today</b> Carlo Hanau, University of Modena and Reggio Emilia - Ital	у
17:30-18.00	<b>Nutraceutic: A new approach to drug discovery</b> Matteo Micucci, Roberta Budriesi, Department of Pharmacy Bologna - Italy	y and Biotechnology University of
18:00-18.30	General discussion	
18.30_20.00	WEI COME DDINK	

# SATURDAY, APRIL 26, 2014

8:30-9:00 **REGISTRATION** 

9:00-9:30 **Welcome** 

Free cranio sacral therapy by appointment Ouirini

ndra

letta

### Session 4. Chair: Silvia Russo

9:30-10:00 Molecular screening of CDKL5 in patients with early-onset seizures encephalopathies: the French experience
 Christophe Philippe, Laboratoire de Génétique Médicale INSERM - France
 10:00-10:30 Behavioral phenotype in CDKL5 Syndrome: literature review and personal experience
 Paola Visconti, Neuropsichiatria Infantile, Ospedale Maggiore, Bologna - Italy
 10:30-11:00 Diagnosing CDKL5: mutational screening and focus on large deletions involving CDKL5
 and flanking regions
 Silvia Russo, Istituto Auxologico Italiano, Cusano Milanino, Milano - Italy

#### Session 5. Chair: Renzo Guerrini

11:00-11:30
Analysis of phenotype in Rett Syndrome Networked Database: differences and similarities between MECP2 and CDKL5 patients.
Alessandra Renieri, Azienda Ospedaliera Universitaria Senese Siena - Italy

Similarities and differences between Rett syndrome and CDKL5 disorder
Giorgio Pini, Tuscany Rett Center, Versilia Hospital, 55043 Lido di Camaiore - Italy

CDKL5 gene related epileptic encephalopathy
Renzo Guerrini, Meyer Hospital, Firenze - Italy

LUNCH TIME

# Session 6. Chair: Giuseppe Gobbi

14:00- 14:30 Molecular and Clinical Analysis of CDKL5 gene in patients with Rett-like features: The Greek experience
Stavroula Psoni, Choremio Research Laboratory, Agia Sophia Children's Hospital, Athens - Greece

14:30-15:00 CDKL5 mutated patients in Spain

Judith Armstrong, Department of Biochemical Genetics&Rett, Hospital Sant Joan de Déu, Barcelona - Spain

15:00- 15:30 Respiratory consequences of the CDKL5 gene mutation: A clinical-biochemical appraisal on patients with the early onset variant of Rett syndrome

Joussef Hayek, Neonatal Intensive Care Unit S. M. Le Scotte General Hospital, Siena - Italy

15:30- 16:00 **Respiratory and sleep disorders in patients with CDKL5 syndrome** Eveline Hagebeuk, Kinderneurologel Stichting Epilepsie Instellingen - Nederland

16:00- 16:30 Oxidative post-transductional modifications are responsible for SR-BI loss in CDKL5 fibroblasts
Giuseppe Valacchi, Department of Life Science and Biotechnologies, University of Ferrara, Ferrara - Italy.

#### Session 7. Chair: Elisabetta Ciani

**CONCLUSION REMARKS** 

19:00-19:30

16:30- 17:00	Horizon 2020: European perspectives for research on Rare Diseases Stefania Trazzi, ARIC, University of Bologna
17:00- 17:30	The Italian Institute of Health: perspectives for research on Rare Diseases Domenica Taruscio, Istituto superiore di sanità.
17:30- 18:00	<b>Rett syndrome and CDKL5 disorder: a common perspective</b> Lucia Dovigo, Rett Syndrome foundation Airett, Italy
18:00-18:30	<b>Panel discussion: Characterization of the CDKL5 disease</b> Panel group for discussion: Giuseppe Gobbi, Giorgio Pini, Christophe Philippe, Alessar Renieri
18:30-19:00	Panel discussion: In search of a therapy for the CDKL5 disease Panel group for discussion: Elisabetta Ciani, Stuart Cobb, Maurizio Giustetto, Nicolandsberger, Tommaso Pizzorusso

# **SUNDAY, APRIL 27, 2014**

8:30-9:00

REGISTRATION

Free medical examination by appointment Guerrini and Russo

Free dental examination by appointment Piana

#### Session 8. Chair: Cosimo Ricciutello

9:00-9:20	<b>Hydrotherapy, methods for a finalized intervention</b> Massimo Quaranta, Istruzione Superiore Don Lorenzo Milani Pertini, Grottaglie (TA) - Italy
9:20-9:40	A parents experience of spider therapy in the UK Carol-Anne Partridge, Chairperson of CDKL5 UK, London -UK
9:40-10:00	A love that gives support: pranotherapy. The experience of Giorgia Rosanna Balsamo, Centro olistico "Dal punto luce" Rho Milano - Italy. Laura Faedda, Milano - Italy
10:00-10:20	Psychology and equestrian rehabilitation as help for rare genetic syndromes Angela Zampa, Aiasport Bologna - Italy
10:20-10:40	The Upledger cranio sacral technique for the CDKL5 disease Patricia Quirini, Cranio sacral Academy of Trieste - Italy
10:40-11:00	CDKL5 and speech therapy: a possible challenge Atalia Tresoldi Ravaioli - Italy
11:00-11:20	How to make more independent CDKL5 children Maddalena Pentella - Italy
11:20-11:40	<b>Pet therapy: Communications and interactions between Children and Dogs</b> Angela Zampa, Aiasport Bologna - Italy
11:40-12:00	<b>Improving oral health in children with special needs</b> Gabriela Piana, Department of Biomedical and Neuromotor Sciences University of Bologna, Bologna - Italy
12:00-12:20	<b>Special education: Psychopedagogy</b> Carlo Hanau, President of FederAMrare - Italy
12:20-12:40	<b>Rehabilitation of children in Italy</b> Emanuela Defranceschi, and President of the Italian CDKL5 Association
12:40-13:00	ABA method, dance therapy and others Katheryn Elibri, President of the International Foundation for CDKL5
13:00-14:00	LUNCH TIME
14:00-14:20	<b>UICI Bologna, parents committee experience: together for our children</b> Daniele Epifani, UICI Regional Committee Coordinator - Italy
14:20-14:40	The importance of early treatments and rehabilitative interventions: Lega del Filo d'Oro Patrizia Ceccarani, Special Unit Director for deaf-blind sensorial multi-impaired - Lega del Filo d'Oro onlus - Italy

# Session 9. Chair: Giuseppe Gobbi

14:40-15:00	<b>Italian CDKL5 Association, our commitment</b> Antonella Statello, Vice President of the Italian CDKL5 association, Castel S. Pietro T. (Bo) - Italy
15:00-15:20	<b>CDKL5 UK, our commitment</b> Adrian Partridge, CDKL5 UK, London - UK
15:20-15:40	International Foundation for CDKL5, our commitment Katheryn Elibri, President of the International Foundation for CDKL5 Research - USA
15:40-16:00	<b>L'albero di Greta, our commitment</b> Barbara Maggiorotto, President of the association l'albero di Greta
16:00-17:30	MEETING OF THE CDKL5 ASSOCIATION EXECUTIVE, PERSPECTIVES FOR THE FUTURE

The entire conference will be simultaneously translated from English into Italian and from Italian into English thanks to qualified interpreters. During the congress there is the possibility to leave children in a play area equipped with a soft corner, appropriate equipment and professional graduated and experienced educators.

"Patch Adams" will be present for the enjoyment of children.

# Thanks to interpreters: Marina Cantoni, Sara Machiavelli

Booking for free medical, dental, cranio sacral examinations: email adress: emydefranceschi@hotmail.com www.cdl5.altervista.org - www.cdkl5.org