

# 2nd Workshop on "Mechanisms, Therapies, and Biomarkers in Neurodevelopmental Disorders"

Scuola Normale Superiore  
Saturday May 18 2024

## Organizers:

Laura Baroncelli (Institute of Neuroscience, CNR, Pisa)

Michele Emdin (Health Science Interdisciplinary Center, Scuola Superiore Sant'Anna, Pisa)

Michela Fagiolini (Boston Childrens' Hospital, Boston USA)

Tommaso Pizzorusso (Laboratory of Biology, Scuola Normale Superiore, Pisa)

Paola Tognini (Health Science Interdisciplinary Center, Scuola Superiore Sant'Anna, Pisa)



Paola



Tom



Laura



Michela



Michele



## Program of the event

Venue: Azzurra room, Palazzo della Carovana, Scuola Normale Superiore, Piazza dei Cavalieri, Pisa

Venue Coffee Break, Lunch and Poster-session: Cloister of Palazzo della Caravona

### 9:15-9:25 Welcome

Tommaso Pizzorusso and Michele Emdin

9:25-9:40 Antonino Caridi "Parents' perspective, needs and challenges"

### Session 1: Early neurodevelopmental alterations, Chair: Laura Baroncelli

9:40-10:05 Debby Sylver " Building our brains: from RNA to evolution"

10:05-10:30 Simona Lodato TBD

10:30- 10:55 Alex Shcheglovitov "Modeling human neurodevelopmental disorders using single neural rosette-derived brain organoids"

*10:55-11:15 coffee break and poster set-up*

### Session 2: Functional impairments and treatments, Chair: Michela Fagiolini

11:15-11:40 Emily Osterweil "The long and short of it: troubled translation in Fragile X"

11:40- 12:05 Pablo Castillo "FMRP and Local Protein Synthesis at the Synapse"

12:05-12:30 Laura Cancedda "Early IGF1 Receptor Inhibition in Mice Mimics Preterm Human Brain Disorders and Reveals a New Therapeutic Target"

*12:30-14:30 Lunch, poster session and networking*

Evaluation of Posters by experts: Maurizio Giustetto, Raffaele Mazziotti, Pablo Castillo, Anis Contractor

### Session 3: Excitatory/Inhibitory balance in neurodevelopmental disorder, Chair: Yuri Bozzi

14:30-14:55 Carlos Portera-Cailliau "Developmental differences in cortical circuits of Fragile X mice"



Children's Hospital Boston



HARVARD MEDICAL SCHOOL



HEALTH  
SCIENCE  
INTERDISCIPLINARY  
CENTER  
Sant'Anna

Bio@SNS



MATTEO  
CALEO  
FOUNDATION

14:55-15:20 Ellen Hoffmann “Functional analysis of autism genes in zebrafish identifies convergent pathways and pharmacological candidates”

15:20-15:55 Anis Contractor: “Pathogenic “Lurcher Site” variants in glutamate receptors”

#### **Session 4: Short-talks, Chair: Paola Tognini**

15:55- 16:25 Two short talks selected between the submitted abstracts, TBD

*16:25-16:45 Coffee break and poster removal*

#### **Session 5: Functional impairments and biomarkers, Chair: Tommaso Pizzorusso**

16:45- 17:10 Maurizio Giustetto "CDKL5 Role in Extracellular Vesicle-Mediated Cell-to-Cell Communication"

17:10-17:35 Marco Pagani “Decoding autism with cross-species fMRI”

#### **Closing stages**

17:35-17:50 Laura Gianfranceschi “presentation of Matteo Caleo Foundation”, and Paola Tognini, Laura Baroncelli will announce the “Best Poster Award”

17:50 Concluding remarks Michela Fagiolini and Tommaso Pizzorusso

*20:00 Speakers’ Dinner*