



SINS23

TORINO

20th

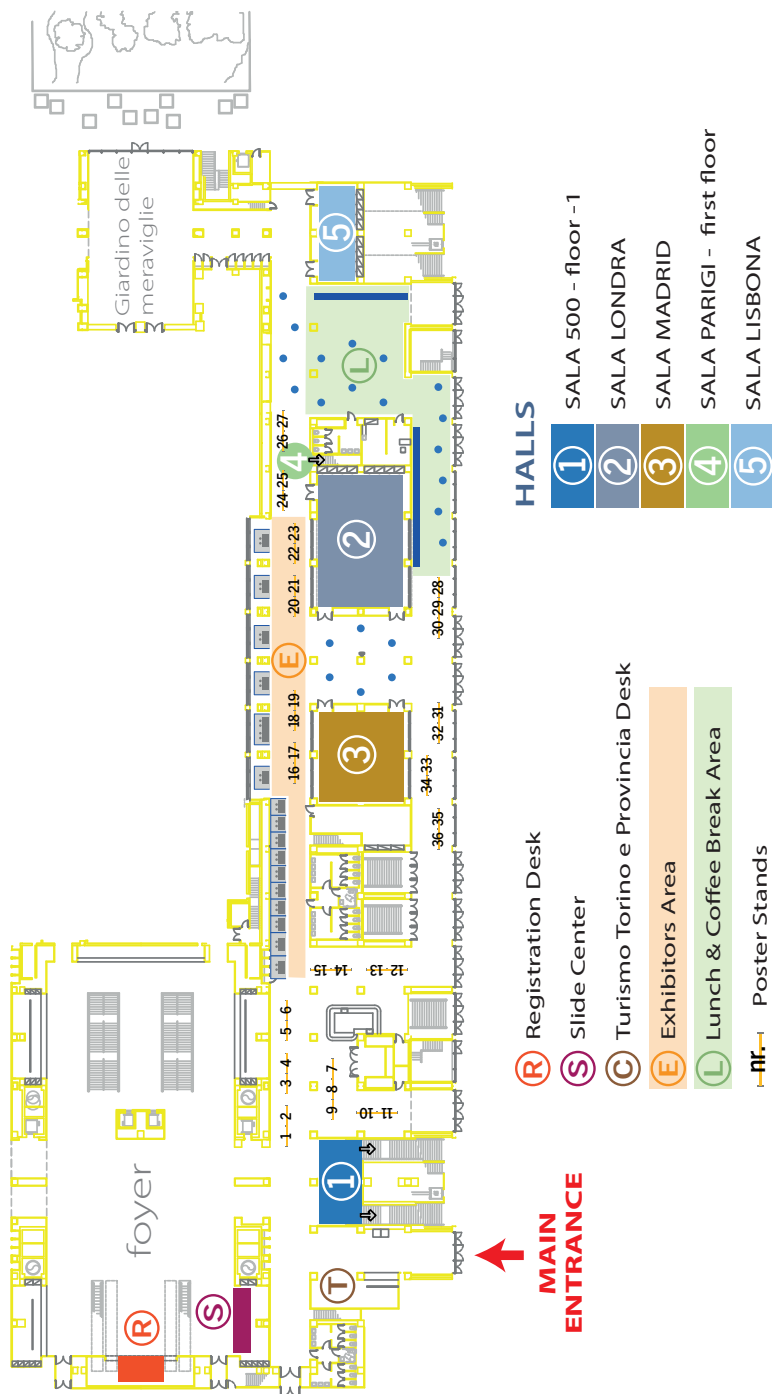
NATIONAL CONGRESS OF THE
ITALIAN SOCIETY FOR NEUROSCIENCE

TURIN | SEPTEMBER 14-17, 2023

*CENTRO CONGRESSI
LINGOTTO*

**CONGRESS
BOOK**

CONGRESS VENUE





CONGRESS BOOK

UNDER THE PATRONAGE OF



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DIPARTIMENTO DI
NEUROSCIENZE
UNIVERSITÀ DI TORINO



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CONGRESS ORGANIZATION

ORGANIZING ASSOCIATION

Italian Society for Neuroscience (SINS)

<https://www.sins.it>

ORGANIZING INSTITUTION

University of Turin

CONGRESS CHAIR

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University of Turin

SCIENTIFIC COMMITTEE

COMMITTEE CHAIR

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University of Turin

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Serena Stanga

University of Turin

Filippo Tempia

University of Turin

CONGRESS ORGANIZING SECRETARIAT

Andrea Bertoni and Gaia Gorini

LAAN

Via Gerolamo Savoldo, 11/B

25124 Brescia

Email: secretariat@sinsmeeting.com

CONGRESS WEBSITE

<https://www.sinsmeeting.com>

CONGRESS INFORMATION

VENUE

CENTRO CONGRESSI LINGOTTO

Via Nizza, 280
10126 Torino TO

The Secretariat Office of SINS 2023 is operated from the registration desk located in the foyer of the Centro Congressi Lingotto.

Registration Desk opening hours:

Thursday, September 14	9:00 – 20:00
Friday, September 15	8:00 – 19:30
Saturday, September 16	8:00 – 19:30
Sunday, September 17	8:00 – 14:00

During the opening hours, all regularly registered participants can collect the Congress material.

Our staff will be pleased to help you with all your enquiries.

SINS Secretariat

The SINS Secretariat is available during the Congress at the registration desk.

ON SITE REGISTRATIONS

Registration on site will be possible during the entire Congress within the opening hours of the registration desk. A surcharge of processing fee will be applied to the regular registration fees posted on the Congress website for on site registrations.

Extra tickets for social events:

Extra ticket for Welcome Reception	€ 30
Extra ticket for Presidential Dinner	€ 100
Extra ticket for Dance the SINS Party	€ 25

Extra tickets for Presidential Dinner and Dance the SINS Party are subject to availability. Please check at the registration desk.

CONGRESS BADGE

The participants are kindly requested to wear the Congress badge at all times during the Congress.

PERSONAL PROPERTY

The participants are invited to take good care of their personal belongings, and to do not leave them unattended.

Neither the Congress organizers nor their staff will be responsible for any loss or damage of the personal property of the participants.

LUNCHES & COFFEE BREAKS

Daily lunch and coffee breaks will be served in the “lunch & coffee break area” of the congress venue.

OPENING CEREMONY

The Opening Ceremony will be held on Thursday, September 14 from 17:15 to 18:00 in the “Sala 500” of Centro Congressi Lingotto.

SINS GENERAL ASSEMBLY

The General Assembly of SINS will be held on Saturday, September 16 from 18:15 to 19:15 in the “Sala 500” of Centro Congressi Lingotto.

CLOSING CEREMONY

The Closing Ceremony is scheduled on Sunday, September 17 from 13:30 to 14:00 in the “Sala 500” of Centro Congressi Lingotto.

SATELLITE EVENTS

Two Satellite Events of the SINS 2023 National Congress will be held on September 14, before the Opening Ceremony.

A first Satellite “Centrality of the peripheral nervous system” will focus on breakthrough research on peripheral and autonomous nervous systems; a second one “Steroids and the nervous system”, co-organized with the Department of Neuroscience ‘Rita Levi Montalcini’ in memory of Giancarlo Panzica, will discuss recent advancements on neurosteroids research. Satellites program include a Poster Session.

TOURIST INFORMATION DESK

A desk of “Turismo Torino e Provincia” is located at the entrance of the congress venue. The staff will be at your disposal to provide all the information for your stay in Turin.

Turismo Torino e Provincia desk opening hours:

Thursday, September 14	12:00 – 14:00 17:00 – 19:00
Friday, September 15	13:30 – 16:00
Saturday, September 16	13:30 – 16:00



PRESENTATION GUIDELINES

SLIDE CENTER & ORAL PRESENTATION GUIDELINES

Uploading of Presentations

Speakers will be NOT allowed to use their personal laptop computers for Presentations.

Presentations saved on a USB memory must be brought to the Slide Centre, located in the foyer of the Lingotto Congress Center, and uploaded in the Conference Room Network at least 4 hours prior the beginning of the Symposium. Speakers will be NOT allowed to upload their Presentations on the computers installed in the conference rooms. Speakers are required to carefully check their Presentation at the Slide Centre before the beginning of the Session. Technicians will assist Speakers to preview their Presentations.

Before the Symposium takes place

Visit the Congress venue, check the room where your Symposium has been scheduled and familiarize yourself with the room. Meet the Symposium Chairs at the Symposium room at least 15 minutes prior the Session will start. The Symposium Chairs will inform you about the time of your Presentation. Most Symposia have been planned for Presentations of 20 minutes each (15 minutes for short talks selected from Poster Abstracts), including questions. However, time allotted for each Presentation may slightly vary depending on the number of Speakers in the Symposium.

During the Symposium

Please deliver your Presentation strictly within the allotted time, leaving at least two minutes for questions. As a Presentation nears the end, you will be alerted by the Symposium Chairs of the time left. Symposium Chairs are instructed to stop any Presentation that runs over the allotted time. At the end of the Presentation the Symposium Chairs will invite questions from the audience (time permitting).

POSTER PRESENTATION GUIDELINES

Attended Poster presentations

Posters not selected for oral presentation will be on display from Thursday, September 14 to Saturday, September 16. Each day, different posters will be exposed.

Registered Presenting Authors are requested to be available at their poster during the session to which they were assigned. The evaluation committee, who will grant the 'Best Poster Awards', will be visiting and discussing the posters with their presenters only during the official session time.

Mounting and removing the Poster

The exposition area will be open for posters' setup from 8:00. All posters should be mounted no later than 8:45 and remain in place until 18:30, only on their assigned presentation days. Please ensure that your poster is removed by 19:00 of the same day. If not timely removed, it will be disposed by staff. To setup the posters, pins will be available near to your poster board. The poster must be attached to the board labeled with the same reference number displayed on the Congress Book and on the Congress website. Please refer to the registration desk for any question.

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TOPICS

The congress will address the following main topics and themes:

Aging, neurodegeneration and Alzheimer's disease
Artificial intelligence in neuroscience
Autism and related disorders
Brain ischemia
Cognition and behavior
Computational and theoretical neuroscience
Development and stem cells
Epilepsy and hyperexcitability
Glial cells in physiology and pathology
Nanosopic, microscopic and macroscopic neuroimaging technologies
Migraine and pain
Mitochondriopathies
Multiple sclerosis
Muscle and motor neuron disorders
Neurobiology of psychiatric disorders
NeuroCOVID
Neuroendocrinology and neuroimmunology
Neuroimaging applications and development
Neuroinflammation
Neuroinformatics
Neuronal circuits, neurophysiology and optogenetic approaches
Neuronal excitability
Neurorobotic
Neurotransmission and signal transduction
Novel methods and technology in neuroscience
Parkinson's disease and other movement disorders
Proteinopathies in neurodegenerative diseases
Recovery mechanisms after neuronal damage
Rewarding systems and drug abuse
Sensory systems
Sociality and emotions

SOCIAL PROGRAM

Synapses and plasticity

The Congress Social Program includes Welcome Reception, Presidential Dinner, and Dance the SINS Party.

WELCOME RECEPTION

The Welcome Reception (included in the full congress registration fee) will be held in the Giardino delle Meraviglie of Centro Congressi Lingotto on September 14, from 19:30 to 21:00.

Note: Registration should be completed in advance at the Registration Desk located in the foyer of the Centro Congressi Lingotto (opening hours: 9:00-20:00).

PRESIDENTIAL DINNER

The Presidential Dinner will be held on September, 16 at the Egyptian Museum (Museo Egizio), in the Gallery of the Kings, starting at 20:30.

DANCE THE SINS PARTY

Dance the SINS 2023 Party going down on September 15 at the Azhar venue, right by the beautiful Po riverside, starting at 20:30.

Tickets for Presidential Dinner and Dance the SINS Party are subject to availability. Please check at the registration desk.

The logo for Frecciarossa, featuring the word "FRECCIAROSSA" in a bold, italicized, white sans-serif font. Below the text is a horizontal bar with a green-to-white-to-red gradient, mimicking the Italian flag.

VETTORE UFFICIALE

AWARDS

SINS TRAVEL GRANTS

The following SINS members have been awarded a travel grant for the scientific contribution which they have submitted to the 20th SINS National Congress.

Lucy Babicola	Ilaria Dettori	Clara Alice Musi
Luigi Balasco	Roberta Facchinetti	Roberto Oleari
Matteo Bordoni	Francesca Fagiani	Silvia Poggini
Gabriele Chelini	Maria Italia	Eveljn Scarian
Federica Cherchi	Annamaria Lia	Marcello Serra
Maria De Risi	Niccolo Meneghetti	Beatrice Uguagliati
Claudia Dell'Amico	Jessica Mingardi	

SINS Travel Grants have been generously funded by the Fondazione Venesio Ente Filantropico.



**Fondazione
Venesio**

ENTE FILANTROPICO

SINS OUTSTANDING POSTER PRESENTERS AWARD

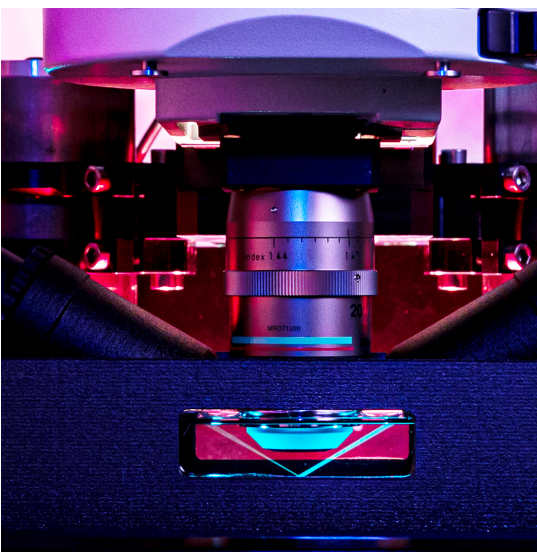
The following Presenting Authors have been awarded as SINS Outstanding Poster Presenters.

Prize of € 250 plus One year
free SINS Membership

Giulia Dematteis
Gabriele Chelini
Maria De Risi
Matilde Reni
Alessandro Valvo
Anna Mitola
Silvia Cecilia Pelucchi
Sunaina Devi
Marianna De Luca
Giulia Castellani
Antonio Nicolas Castagno
Giulia Nato

One year free SINS Membership

Claudia Capitini
Anna Bertucci
Valentina Scarpetta
Miriam De Sarlo
Maria Italia
Matteo Rossi Sebastiano
Clara Alice Musi
Livia Guadalupi
Federica Serafini
Livia Vignozzi



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TIMETABLE

14th

TIMETABLE		THURSDAY SEPTEMBER 14
TIME		SALA LONDRA
10:00	SATELLITE EVENT 1	
11:15	SATELLITE SYMPOSIUM 1 Schwann Cells in Nerve Physiopathology	
11:15	SATELLITE SYMPOSIUM 2 Mechanism of Recovery After Peripheral Nerve Damage	
12:30	LUNCH BREAK AND SATELLITE POSTER SESSION	
14:30		
TIME		SALA LONDRA
14:30	SATELLITE EVENT 2	
15:45	SATELLITE SYMPOSIUM 3 Enteric Nervous System: the Second Brain of the Mammalian Body	
15:45	SATELLITE SYMPOSIUM 4 Steroids and Nervous System	
17:00		
TIME		SALA 500
17:15	SINS 2023 OPENING CEREMONY	
18:00		
18:00	SINS – EGYPTIAN MUSEUM LECTURE Dreams in the ancient Egypt Christian Greco	
18:30	SINS PRESIDENTIAL LECTURE Dedicated to Rita Levi-Montalcini The space of actions - Neural circuits for transforming spatial representations into actions Marco Tripodi	
19:30		GIARDINO DELLE MERAVIGLIE
TIME		
19:30	WELCOME COCKTAIL	
21:00		

TIMETABLE					FRIDAY SEPTEMBER 15	
TIME	SALA 500	SALA LONDRA	SALA MADRID	SALA PARIGI	SALA LISBONA	
PARALLEL SYMPOSIA - 1st SESSION						
08:30 09:45	1_1 Cognitive deficits in neuropsychiatric disorders: from neural networks to function <i>SINS - SIPB Joint Symposium</i>	1_2 Beyond motor neurons: skeletal muscle contribution in motor neuron diseases	1_3 Impact of prenatal maternal adversities on the offspring developmental outcomes	1_4 Translational approaches to GRIN related disorders	1_5 Distributed sensory processing in the cortex	
PARALLEL SYMPOSIA – 2nd SESSION						
09:45 11:00	2_1 Cutting-edge approaches for the study of neurodevelopment and related disorders	2_2 Extracellular vesicles in ALS/MND: the two sides of the medal	2_3 The human brain in action: from movement monitoring to execution	2_4 Spinal mechanisms of pain modulation		
11:00	COFFEE BREAK					
PARALLEL SYMPOSIA – 3rd SESSION						
11:30 12:45	3_1 Gene therapy and MINDs: from preclinical validation to clinical application	3_2 Gut-brain axis in Parkinson's Disease: from animal models to patients	3_3 Capturing the complexity of social and cognitive processes	3_4 We are what we remember: circuits and mechanisms shaping memory	3_5 Novel insights on eating disorders: neurobiological mechanisms and pharmacological targets	
SALA 500						
PLENARY LECTURE 1						
12:45 13:30	Neurodiversity of social motivation in health and disease Camilla Bellone					
13:30 15:45	LUNCH BREAK AND POSTER SESSION 1					
SALA 500						
TIME	SALA 500	SALA LONDRA	SALA MADRID	SALA PARIGI	SALA LISBONA	
14:15 14:30			PRESENTATION Italian Glial Network			
14:30 15:45	ROUND TABLE 1 EARA - Communication of research on experimental animals		0_1 SYMPOSIUM: Advances in understanding astrocyte biology			
SALA 500						
PLENARY LECTURE 2						
15:45 16:30	Molecular mechanisms linking the development and evolution of the human cerebral cortex Pierre Vanderhaeghen					
16:30	COFFEE BREAK					
SALA 500						
TIME	SALA 500	SALA LONDRA	SALA MADRID	SALA PARIGI	SALA LISBONA	
17:00 18:15	PARALLEL SYMPOSIA – 4th SESSION 4_1 Translational research and therapeutic implications in MINDs	4_2 Cell-to-cell communication in human and mouse models of neurodevelopmental disorders	4_3 Neuroplasticity in Parkinson's disease: from pathophysiology to therapeutic possibilities	4_4 Neurobiology of social interactions: integration of ecological and neurophysiological approach	4_5 Brain vulnerability to drug abuse: from molecular mechanisms to behaviour	
PARALLEL SYMPOSIA – 5th SESSION						
18:15 19:30	5_1 Beyond adult neurogenesis: reservoirs of “immature” neurons for brain plasticity	5_2 Maternal stressors matter: deconstructing the neurobehavioral signature of fetal insults	5_3 The distributed engram: large-scale neuronal circuits underlying fear learning and extinction	5_4 Recent advances in 3D Electron Microscopy for Neuroscience	5_5 Neuroimmune-driven pain chronification	

TIMETABLE					SATURDAY SEPTEMBER 16	
TIME	SALA 500	SALA LONDRA	SALA MADRID	SALA PARIGI	SALA LISBONA	
PARALLEL SYMPOSIA – 6th SESSION						
08:30	6_1 In pursuit of healthy brain aging: unravelling the biology of novel age-related mechanisms leading to dementia (Under 40 Symposium)	6_2 Innovative brain imaging and peripheral biomarkers of Parkinson's disease progression	6_3 Stem cells meet glial cells: human iPSC-derived glia to study myelin diseases	6_4 Neuroinflammation in the basal ganglia network: implications for neurological diseases (Under 40 Symposium)	6_5 Emerging factors underlying nigrostriatal dopaminergic system dysfunctions in neurological disorders (Under 40 Symposium)	
09:45						
PARALLEL SYMPOSIA – 7th SESSION						
09:45	7_1 From genes to environment: the GABA switch in neuropsychiatric disorders	7_2 From development to disease – how astrocyte heterogeneity sculpts the brain	7_3 Synucleinopathy and synucleinopenia: the two faces of neurodegeneration	7_4 Non-invasive stimulation of brain networks: from plasticity to functional connectivity	7_5 Glioblastoma multiforme: a better understanding for having clinically promising approaches	
11:00						
11:00	COFFEE BREAK					
PARALLEL SYMPOSIA – 8th SESSION						
11:30	8_1 Mechanisms and therapies of metabolic and neurological disorders	8_2 Amyotrophic Lateral Sclerosis: from Molecular mechanisms to clinical trial design	8_3 Cell intrinsic and extrinsic regulation of oligodendrocyte biology and re-/myelination	8_4 Individual Neurodynamics to Personalize Neuromodulations [INPerN]	8_5 Walking through misfolded proteins in movement disorders	
12:45						
SALA 500						
TIME	PLENARY LECTURE 3					
12:45	Neuronal correlates of social behavior in health and disease Ewelina Knapska					
13:30	LUNCH BREAK AND POSTER SESSION 2					
13:30						
15:45						
TIME	SALA 500	SALA LONDRA	SALA MADRID	SALA PARIGI	SALA LISBONA	
14:30	ROUND TABLE Italian Brain Council Perspectives and challenges brain research: towards brain health era	0_2 Network correlates of brain dysfunction in autism: from deep phenotyping to drug discovery				
15:45						
SALA 500						
TIME	PLENARY LECTURE 4					
15:45	Microglia in the healthy and diseased brain Rosa Chiara Paolicelli					
16:30	COFFEE BREAK					
16:30						
TIME	SALA 500	SALA LONDRA	SALA MADRID	SALA PARIGI	SALA LISBONA	
PARALLEL SYMPOSIA – 9th SESSION						
17:00	9_1 Misfolded proteins and mechanisms of neurodegeneration <i>SINS - SIN joint symposium</i>	9_2 From ontogenesis to physiology and cell replacement: insight into the striatum	9_3 Pathogenic mechanisms of autoimmune encephalitis associated with synaptic autoantibodies	9_4 Sex modulates early-life social experiences effects on brain and behavior	9_5 Big Data in Neuroscience: large scale characterization of brain physiology	
18:15						
SALA 500						
TIME	SINS GENERAL ASSEMBLY					
18:15						
19:15						

TIMETABLE		SUNDAY SEPTEMBER 17			
TIME	SALA 500	SALA LONDRA	SALA MADRID	SALA PARIGI	SALA LISBONA
08:30 09:45	PARALLEL SYMPOSIA – 10th SESSION				
	10_1 Neural bases of peripersonal space: animal models, health and disease	10_2 Advanced applications of gene therapy and editing for treating neurological disorders	10_3 Different strategies to untangle the neurobiology of psychiatric disorders	10_4 Coding and non-coding RNA in health and diseases of the Central nervous System (Under 40 Symposium)	10_5 Inside and outside the CNS: searching for targets in neurodegeneration
09:45 11:00	PARALLEL SYMPOSIA – 11th SESSION				
	11_1 Molecular mechanisms of autism spectrum disorders	11_2 Unforgettable memories: neural/molecular processes in hypermnesia and impaired extinction	11_3 The role of glial cells in PNS development and pathology	11_4 Lipid metabolism and neurodegenerative disorders: new insights and therapeutic perspectives	11_5 Ketamine to understand the nature of rapid antidepressant action
11:00	COFFEE BREAK				
11:30 12:45	PARALLEL SYMPOSIA – 12th SESSION				
	12_1 Periphery-CNS miscommunication in neurodegeneration: focus on brain barriers	12_2 Building cortical circuits: one gene, one protein, one cell at the time	12_3 The importance of innovative experimental models in neuroscience research	12_4 Novel molecular players affecting synaptic functions in movement disorders (Under 40 Symposium)	12_5 Novel Psychoactive Substances toxicology: from preclinical research to human psychopathology
TIME	SALA 500				
12:45	PLENARY LECTURE 5				
13:30	Implantable and wearable neurotechnologies to understand and restore neural functions Silvestro Micera				
13:30 14:00	CLOSING CEREMONY				

An aerial photograph of Turin, Italy, featuring a red silhouette of the Alps on the left and a tall, dark spire in the center. The city's architecture, including a large dome and a helipad, is visible in the background.

Thursday

TURIN 2023

September **14**



10:00 - 11:15

SATELLITE SYMPOSIUM

SALA LONDRA

1

SCHWANN CELLS IN NERVE PHYSIOPATHOLOGY

Chairs: Giovanna Gambarotta - Valerio Magnaghi

Schwann cell-specific Beclin-1 ablation causes demyelinating peripheral neuropathy in mice

Matilde Cescon (University of Padua)

Deciphering a regenerative niche at the Neuromuscular Junction to promote motor function recovery after injury

Michela Rigoni (University of Padua)

Neurotransmitters and Schwann cell cross-talk

Valerio Magnaghi (University of Milan)

Effects mediated by $\alpha 7$ nicotinic receptors activation in Schwann cells: implication in peripheral nerve regeneration

Ada Maria Tata (Sapienza University of Rome)

11:15 - 12:30

SATELLITE SYMPOSIUM

SALA LONDRA

2

MECHANISM OF RECOVERY AFTER PERIPHERAL NERVE DAMAGE

Chairs: Stefania Raimondo - Carla Taveggia

Secretases in peripheral nerve regeneration

Carla Taveggia (San Raffaele Scientific Institute, Milan)

CXCR4: a new target to boost peripheral nerve regeneration

Samuele Negro (Azienda Ospedale-Università Padua)

Beyond “simple” surgical peripheral nerve repair strategies – towards limb replantation

Kirsten Haastert-Talini (Hannover Medical School MHH, Germany)

Importin $\alpha 3$ contribution to the pain transduction pathway

Livia Testa (University of Turin)

12:30 - 14:30 **LUNCH BREAK AND SATELLITE POSTER SESSION**

14:30 - 15:45 **SATELLITE SYMPOSIUM**

SALA LONDRA

3

ENTERIC NERVOUS SYSTEM: THE SECOND BRAIN OF THE MAMMALIAN BODY

(Workshop of the Italian Group of Neuromorphology – GISN)

Chairs: Roberto De Giorgio - Catia Sternini

From Function to Neuroscience: How the Enteric Nervous System is Organized and How it Works

Marcello Costa (Flinders University, Adelaide, Australia)

When the Second Brain Gets Sick: A Journey through Enteric Neuropathies

Roberto De Giorgio (University of Ferrara)

The Opioid Paradigm in the Enteric Nervous System: Insights into New Molecular Mechanisms

Catia Sternini (UCLA School of Medicine, Los Angeles, CA, USA)

The role of the gut-brain axis in GBAI-linked Parkinson's disease

Chiara Sinisgalli (University of Padua)

15:45 - 17:00 **SATELLITE SYMPOSIUM**

SALA LONDRA

4



STEROIDS AND NERVOUS SYSTEM

SINS and Turin Department of Neuroscience Symposium in Memory of Giancarlo Panzica

Chairs: Stefano Gotti - Roberto C. Melcangi

Giancarlo Panzica

Stefano Gotti, Alessandro Mauro

Neuroactive steroids, gut-microbiota-brain axis and diabetic encephalopathy

Silvia Diviccaro (University of Milan)

Dual role of brain-derived estrogens in the control of sexual behavior

Charlotte Cornil (University of Liege, Belgium)

Sex differences-related epigenetic landscape modifications in neuroinflammation

Daniela Grassi (Universidad Autonoma de Madrid, Spain)



14th SEPTEMBER

20th NATIONAL CONGRESS OF THE
ITALIAN SOCIETY FOR NEUROSCIENCE

17:15 - 18:00 **OPENING CEREMONY**

SALA 500



Video introduction

Welcome and General address from Congress President

Greetings from the Authorities

Stefano Geuna (Rector of University of Turin)

Alessandro Mauro (Director of the Department of
Neurosciences "Rita Levi Montalcini")

Alessandro Vercelli (SINS President)

18:00 - 18:30

SINS – Egyptian Museum Lecture

DREAMS IN THE ANCIENT EGYPT

Christian Greco (Director of the Egyptian Museum of Turin)

Chair: Martina Amanzio

18:30 - 19:30

SINS – Presidential Lecture | dedicated to Rita Levi-Montalcini

THE SPACE OF ACTIONS - NEURAL CIRCUITS FOR TRANSFORMING SPATIAL REPRESENTATIONS INTO ACTIONS

Marco Tripodi (MRC Laboratory of Molecular Biology,
Cambridge, UK)

Chair: Alessandro Vercelli

19:30 - 21:00

WELCOME COCKTAIL

Giardino delle Meraviglie



Friday

TURIN 2023

September **15**



15th

SEPTEMBER

20th NATIONAL CONGRESS OF THE
ITALIAN SOCIETY FOR NEUROSCIENCE

08:30 - 09:45 **PARALLEL SYMPOSIA | 1st Session**

SALA 500

PARALLEL SYMPOSIA | 1st Session

1_1

COGNITIVE DEFICITS IN NEUROPSYCHIATRIC DISORDERS: FROM NEURAL NETWORKS TO FUNCTION

SIPB – SINS Joint Symposium

Chairs: Paolo Calabresi – Alfonso Tortorella

Cognitive deficits in schizophrenia: impact on functioning and new treatment options

Armida Mucci (University of Campania “Luigi Vanvitelli”, Naples)

Biological markers of cognitive decline in major psychoses: the role of neural networks

Paola Fadda (University of Cagliari)

Cognition and clinical outcomes in severe psychiatric disorders: trans-diagnostic approaches

Mirko Manchia (University of Cagliari)

A new animal model of Gaming Disorder: sexual differences in behavior and reward system

Antonino Casile (University of Camerino, Camerino, MC)

SALA LONDRA

PARALLEL SYMPOSIA | 1st Session

1_2



BEYOND MOTOR NEURONS: SKELETAL MUSCLE CONTRIBUTION IN MOTOR NEURON DISEASES

Symposium sponsored by The Company of Biologists and by European Society for Neurochemistry

Chairs: Marina Boido – Riccarda Granata

Investigating a new therapeutic role of the GHRH agonist MR409 in an experimental model of Spinal Muscular Atrophy

Marina Boido (University of Turin)

Muscle and motor neurons as partners in crime in ALS. Cellular and molecular mechanisms of muscle-nerve interplay

Antonio Musarò (Sapienza University of Rome, Rome)

Defective excitation-contraction coupling and mitochondrial respiration precede mitochondrial Ca²⁺ accumulation in spinobulbar muscular atrophy skeletal muscle

Caterina Marchioretto (University of Padua)

Energy dysmetabolism in Amyotrophic Lateral Sclerosis: a role for peroxisomes

Martina Terricola (University of Roma Tre, Rome)

SALA MADRID

PARALLEL SYMPOSIA | 1st Session

1_3

IMPACT OF PRENATAL MATERNAL ADVERSITIES ON THE OFFSPRING DEVELOPMENTAL OUTCOMES

Chairs: *Tiziana Rubino – Claudio D'Addario*

Maternal immune activation impairs endocannabinoid signaling in the mesolimbic system of adolescent male offspring

Michele Santoni (University of Cagliari)

Transcriptional regulation of endocannabinoid and dopaminergic system genes driven by prenatal and perinatal THC exposure

Martina Di Bartolomeo (University of Teramo)

Neurodevelopmental sequelae of prenatal valproic exposure in rats

Erica Zamberletti (University of Insubria, Varese)

Postnatal paternal exposure shapes neuronal circuits in auditory cortex

Serena Bovetti (University of Turin,)

SALA PARIGI

PARALLEL SYMPOSIA | 1st Session

1_4

TRANSLATIONAL APPROACHES TO GRIN RELATED DISORDERS

Chairs: *Ilaria Bertocchi – Benedetto Vitiello*

Preclinical evaluation of antiepileptic drugs in the Grin2aS/S murine model

Ilaria Bertocchi (University of Turin)

Radiprodil, a NR2B-NMDA negative allosteric modulator in clinical development for GRIN related disorders caused by gain of function mutations

Pierandrea Muglia (GRIN Therapeutics Inc, Brussels, Belgium)

Clinical and genetic spectrum of GRIN-related disorders

Johannes Lemke (Leipzig University, Leipzig, Germany)

Missense variants in RPH3A cause defects in excitatory synaptic function and are associated with a clinically variable neurodevelopmental disorder

Marta Barzasi (University of Milan)



15th

SEPTEMBER

20th NATIONAL CONGRESS OF THE
ITALIAN SOCIETY FOR NEUROSCIENCE

SALA LISBONA

PARALLEL SYMPOSIA | 1st Session

1_5

DISTRIBUTED SENSORY PROCESSING IN THE CORTEX

Chairs: Maximiliano Jose Nigro – Luca Bonini

Processing of tactile inputs in the mouse perirhinal cortex

Maximiliano Jose Nigro (Kavli Institute for Systems Neuroscience, Trondheim, Norway)

Decoding action intention and haptic information in the early visual cortex: beyond visual processing

Simona Monaco (University of Trento)

Encoding of familiar and unexpected tactile stimuli in the barrel cortex of the awake mouse

Mariangela Panniello (Istituto Italiano di Tecnologia, Genoa)

Sensory hypo-responsiveness is associated to cortical functional hyperconnectivity in SHANK3B +/- mice

Elena Montagni (National Research Council CNR, Florence)

09:45 - 11:00

PARALLEL SYMPOSIA | 2nd Session

SALA 500

PARALLEL SYMPOSIA | 2nd Session

2_1

CUTTING-EDGE APPROACHES FOR THE STUDY OF NEURODEVELOPMENT AND RELATED DISORDERS

Chairs: Anna Maria Cariboni – Valentina Massa

Human stem cell-based systems to study human neurodevelopment in health and disease

Luciano Conti (University of Trento)

Modeling Pitt-Hopkins syndrome and new pathogenetic variants of TCF4: a step forward toward precision medicine

Michela Ori (University of Pisa)

Regulation of cerebellar nuclei morphogenesis by Zfp423/ZNF423, a gene mutated in Joubert syndrome

Filippo Casoni (Vita-Salute San Raffaele University, Milan)

Citron Kinase is required for BRCA1 loading at DNA damage foci in mammalian neural stem cells and brain organoids

Giorgia legiani (University of Turin)

SALA LONDRA

PARALLEL SYMPOSIA | 2nd Session

2_2

EXTRACELLULAR VESICLES IN ALS/MND: THE TWO SIDES OF THE MEDAL

Chairs: *Marco Milanese* – *Stephanie Duguez*

Microglia-derived Extracellular Vesicles are involved in synaptic pruning

Giulia D'Arrigo (CNR Institute of Neuroscience, Milan)

Role of extracellular vesicles secreted from muscles in motor neuron diseases

Stephanie Duguez (Ulster University, Ulster, UK)

MSC-derived extracellular vesicles for the treatment of ALS

Matilde Balbi (University of Genoa)

Transcriptional changes underlying enhanced oligodendrocyte maturation after exposure to microglial vesicles: therapeutic implications for ALS

Stefano Raffaele (University of Milan)

SALA MADRID

PARALLEL SYMPOSIA | 2nd Session

2_3

THE HUMAN BRAIN IN ACTION: FROM MOVEMENT MONITORING TO EXECUTION

Chair: *Rossella Breveglieri* – *Martina Amanzio*

The medial posterior parietal cortex and motor control: insights from transcranial magnetic stimulation

Rossella Breveglieri (University of Bologna)

Motor invariants in action execution and perception

Alessandro D'Ausilio (University of Ferrara)

Exploring complex motor skills in virtual reality to characterize sensorimotor impairments in neurological disorders

Marta Russo (University of Rome Tor Vergata, Rome)

So close, so similar: the role of 'motor distance' in action understanding

Camilla Maronati (University of Turin)



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PARALLEL SYMPOSIA | 2nd Session

2_4

SPINAL MECHANISMS OF PAIN MODULATION

Chairs: Francesco Ferrini – Adalberto Merighi

Pain; the chloride gate

Yves De Koninck (CERVO, Brain Research Centre, Québec, QC, Canada)

Uneven TrkB-signaling in the dorsal horn shapes sensory modalities

Francesco Ferrini (University of Turin)

Serotonergic modulation of identified neural circuits in spinal cord dorsal horn

Rita Bardoni (University of Modena)

Recruitment of inhibitory neurons in a murine model of inflammatory pain

Emma Merlin (University of Turin)

11:00 - 11:30

COFFEE BREAK

11:30 - 12:45

PARALLEL SYMPOSIA | 3rd Session

SALA 500

PARALLEL SYMPOSIA | 3rd Session

3_1

GENE THERAPY AND MNDS: FROM PRECLINICAL VALIDATION TO CLINICAL APPLICATION

Chairs: Manuela Basso – Maria Pennuto

Genetic forms of ALS, from the clinics to the therapy

Adriano Chiò (University of Turin)

Targeting androgen receptor transcriptional activity for SBMA therapy development

Carlo Rinaldi (University of Oxford, Oxford, UK)

Ethipathogenesis and new therapeutic targets for SMA

Linda Ottoboni (University of Milan)

Modulation of mutant TDP-43 within astrocytes ameliorates disease progression in a mouse model of Amyotrophic Lateral Sclerosis

Anna Micol Barbieri (University of Trento)

SALA LONDRA

PARALLEL SYMPOSIA | 3rd Session

3_2

GUT-BRAIN AXIS IN PARKINSON'S DISEASE: FROM ANIMAL MODELS TO PATIENTS

Symposium under 40

Chair: Vanessa Porrini – Giovanna Gambarotta

Prodromal intestinal symptoms in Parkinson's disease:
evidence from preclinical models

Vanessa D'Antongiovanni (University of Pisa)

Gut-to-brain progression of synucleinopathy in the c-rel-/-
mouse model of Parkinson's disease

Vanessa Porrini (University of Brescia)

Impact of constipation on clinical-biochemical profile of
De Novo Parkinson's Disease

Piergiorgio Grillo (University of Pavia)

SALA MADRID

PARALLEL SYMPOSIA | 3rd Session

3_3

CAPTURING THE COMPLEXITY OF SOCIAL AND COGNITIVE PROCESSES

Chairs: Miriam Melis – Diego Scheggia

Perinatal paracetamol deranges rat dopamine
developmental trajectory

Miriam Melis (University of Cagliari)

Serial activation of protein kinase A in the striatum and
in the prefrontal cortex mediates the inverted-U shaped
dose-response curve of D1 agonists on memory capacity

Elvira De Leonibus (National Research Council - CNR
Monterotondo, RM)

Circuits of emotion discrimination

Francesco Papaleo (Italian Institute of Technology, Genoa)

Cortical microglia-somatostatin neurons communication
in adolescence modulates emotion discrimination

Cinzia Molent (Italian Institute of Technology, Genoa)



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SALA PARIGI

PARALLEL SYMPOSIA | 3rd Session

3_4

WE ARE WHAT WE REMEMBER: CIRCUITS AND MECHANISMS SHAPING MEMORY

Chair: Gustavo Provensi – Maria Vincenza Catania

Hippocampal and prefrontal CB1 receptors differentially mediate diet-induced memory deficits in males and females
Guillaume Ferreira (University of Bordeaux, Bordeaux, France)

Past emotional experiences in shaping neural circuits: how prior fear learning modulates the consolidation of new fear memories

Giulia Concina (University of Turin)

Chemogenetic manipulation of histaminergic neurons modulates memory consolidation and retrieval in physiological and pathological conditions

Alessia Costa (University of Florence)

Thalamo-hippocampal pathway regulates incidental memory capacity in mice: insight into sex-differences

Diletta Cavezza (National Research Council - CNR, Monterotondo, RM)

SALA LISBONA

PARALLEL SYMPOSIA | 3rd Session

3_5

NOVEL INSIGHTS ON EATING DISORDERS: NEUROBIOLOGICAL MECHANISMS AND PHARMACOLOGICAL TARGETS

Chairs: Silvana Gaetani – Giuseppina Cantarella

New pharmacological perspectives to counteract the interplay between diet-induced metaflammation and neuroinflammation

Massimo Collino (University of Turin)

Preclinical studies of Anorexia Nervosa in an animal model
Carlotta Siddi (University of Cagliari)

“To brain or not to brain”: evaluating the possible direct effects of the satiety factor oleoylethanolamide in the central nervous system

Marzia Friuli (Sapienza University of Rome, Rome)

Dopaminergic system regulation in binge eating: preclinical and clinical evidence

Francesca Mercante (University of Teramo)

12:45 - 13:30 **PLENARY LECTURE 1**

SALA 500

NEUROCIRCUITRY OF SOCIAL MOTIVATION IN HEALTH AND DISEASE

Camilla Bellone (University of Geneva, Switzerland)

Chair: Monica DiLuca

13:30 - 14:45 **LUNCH BREAK AND POSTER SESSION 1**

14:15 - 14:30 **PRESENTATION**

SALA MADRID

THE ITALIAN GLIA NETWORK

14:30 - 15:45 **ROUND TABLE | EARA**

SALA 500

COMMUNICATION OF RESEARCH ON EXPERIMENTAL ANIMALS

The role of Committee on Animals in Research (CARE-FENS) in the use of animals in neuroscience research

Antonio Pisani (Member of the Committee on Animal Research of the Federation of European Neuroscience Societies {FENS-CARE})

Procedura di infrazione EU 2016/2013: come portarla all'attenzione del decisore politico?"

Giuliano Grignaschi (Research4life General Secretariat)

"Animal Research: Time to Talk!"

Kirk Leech (Executive Director of EARA)



14:30 - 15:45 **SYMPOSIUM**

SALA MADRID

0_1

ADVANCES IN UNDERSTANDING ASTROCYTE BIOLOGY

Chairs: Laura Civiero – Nunzio Iraci

Neuroprotective role(s) of astrocyte-derived extracellular vesicles

Nunzio Iraci (University of Catania)

Cortical astrocytes across mammalian evolution: the special features of astrocytes in primates

Carmen Falcone (SISSA, Trieste)

The role of mitochondrial metabolism in astrocytes

Francesco Petrelli (University of Lausanne, Switzerland)

Atypical chemokine receptor 3: a novel player in astrocyte-mediated elimination of synaptic terminals

Veronica Giusti (IRCCS San Camillo Hospital, Venice)

15:45 - 16:30 **PLENARY LECTURE 2**

SALA 500

MOLECULAR MECHANISMS LINKING THE DEVELOPMENT AND EVOLUTION OF THE HUMAN CEREBRAL CORTEX

Pierre Vanderhaeghen (VIB-KU Leuven Center for Brain & Disease Research, Leuven, Belgium)

Chair: Ferdinando di Cunto

16:30 - 17:00 **COFFEE BREAK**

17:00 - 18:15 **PARALLEL SYMPOSIA | 4th Session**

SALA 500

PARALLEL SYMPOSIA | 4th Session

4_1

TRANSLATIONAL RESEARCH AND THERAPEUTIC IMPLICATIONS IN MNDS

Chairs: Stefania Marcuzzo – Silvia Bonanno

From iPSC-derived motor neurons to new therapeutic strategies for Amyotrophic Lateral Sclerosis (ALS)

Ludo Van Den Bosch (University of Leuven, Leuven, Belgium)

Bicalutamide and trehalose as a therapeutic approach for SBMA

Riccardo Cristofani (University of Milan)

Towards the identification of biomarkers of disease progression and response to treatment in Spinal Muscular Atrophy

Silvia Bonanno (IRCCS Carlo Besta Neurological Institute, Milan)

Uncovering repositioned therapies efficacy for Spinal Muscular Atrophy treatment

Giovanna Menduti (University of Turin)

SALA LONDRA

PARALLEL SYMPOSIA | 4th Session

4_2

CELL-TO-CELL COMMUNICATION IN HUMAN AND MOUSE MODELS OF NEURODEVELOPMENTAL DISORDERS

Chairs: Riccardo Brambilla – Maurizio Giustetto

Cell signalling modulation of cortical and subcortical development in human and mouse models of 16p11.2 copy number variants

Ilaria Morella (Cardiff University, UK)

Convergence of dysregulated cellular pathways in human and mouse models of CDKL5-deficiency disorder

Maurizio Giustetto (University of Turin)

Somatosensory processing deficits and altered connectivity in Cntnap2 ^{-/-} and Shank3b ^{-/-} mouse models of autism spectrum disorder

Luigi Balasco (University of Trento)

Modulating the microenvironment influences the patterning of hippocampal organoids

John Wesley Ephraim (Italian Institute of Technology, Genoa)



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PARALLEL SYMPOSIA | 4th Session

4_3

NEUROPLASTICITY IN PARKINSON'S DISEASE: FROM PATHOPHYSIOLOGY TO THERAPEUTIC POSSIBILITIES***Chairs: Riccardo Di Iorio – Danilo Genovese***

NIBS treatments exploring and restoring cortical plasticity in PD

Riccardo Di Iorio (Fondazione Policlinico Universitario Agostino Gemelli IRCCS, Rome)

Interaction between plasticity mechanisms and cortical oscillatory activities in Parkinson's disease patients

Andrea Guerra (University of Padua)

Tackling synaptopathy and related events in Parkinson's disease through the patients' peripheral tissues analysis

Tommaso Schirinzi (University of Rome Tor Vergata, Rome)

Neuroprotective effects of GSK-343 in an in vivo model of MPTP-induced nigrostriatal degeneration

Giovanna Casili (University of Messina)

SALA PARIGI

PARALLEL SYMPOSIA | 4th Session

4_4

NEUROBIOLOGY OF SOCIAL INTERACTIONS: INTEGRATION OF ECOLOGICAL AND NEUROPHYSIOLOGICAL APPROACH***Chairs: Monica Maranesi – Aldo Genovesio***

More tasks at a time: mixed selectivity in monkey anterior intraparietal neurons during visual and motor processes

Monica Maranesi (University of Parma)

Motor mimicry and behavioural synchronization in social mammals: an ethological approach

Elisabetta Palagi (University of Pisa)

Affective touch: hedonic and autonomic responses

Olga Dal Monte (University of Turin)

Hippocampal Representation During Collective Spatial Behavior

Angelo Forli (University of California, Berkeley, CA, USA)

SALA LISBONA

PARALLEL SYMPOSIA | 4th Session

4_5

BRAIN VULNERABILITY TO DRUG ABUSE: FROM MOLECULAR MECHANISMS TO BEHAVIOUR

Chairs: Elisabetta Gerace – Guido Mannaioni

Effects of ethanol during neurodevelopment: from molecular mechanisms to behaviour

Elisabetta Gerace (University of Florence)

Alcohol binge drinking in adolescence jeopardises CGRP levels in the rat brain. Evidence on cannabidiol rescue effect

Anna Brancato (University of Palermo)

A central amygdala molecular mechanism in compulsive alcohol drinking

Esi Domi (University of Camerino, MC)

Pre-and Post Synaptic signatures of an AUD-like state in the rat prelimbic cortex

Ana Domi (University of Gothenburg, Gothenburg, Sweden)

18:15 - 19:30

PARALLEL SYMPOSIA | 5th Session

SALA 500

PARALLEL SYMPOSIA | 5th Session

5_1

BEYOND ADULT NEUROGENESIS: RESERVOIRS OF “IMMATURE” NEURONS FOR BRAIN PLASTICITY

Chairs: Luca Bonfanti –Sebastien Couillard-Despres

The slow awakening of neuronal precursors in the aging brain
Bruno Benedetti (Paracelsus Medical University, Salzburg, Austria)

Meninges: a widespread niche of neural progenitors for the brain

Ilaria Decimo (University of Verona)

Phylogenetic variation of cortical and subcortical “immature” neurons

Luca Bonfanti (University of Turin)

Widespread and continuous astrocytes activation support long-term neurogenesis in the lesioned striatum

Marco Fogli (University of Turin)



SALA LONDRA

PARALLEL SYMPOSIA | 5th Session

5_2

MATERNAL STRESSORS MATTER: DECONSTRUCTING THE NEUROBEHAVIORAL SIGNATURE OF FETAL INSULTS
Under 40 Symposium**Chairs: Antonia Manduca – Anna Maria Tartaglione**

Gestational ethanol exposure impairs motor skills in female mice through dysregulated striatal dopamine and acetylcholine function

Sebastiano Bariselli (NIH, Bethesda, MD, USA)

Prenatal THC exposure perturbs hippocampus-related cognitive functions in adolescent rats: is there a role for mitochondrial CB1 receptor?

Gianluca Lavanco (University of Palermo)

Prenatal exposure to valproic acid in mice induces abnormal expression of Endogenous Retroviruses from intrauterine life to adulthood

Martina Giudice (University of Rome Tor Vergata, Rome)

Early-life vs adulthood Fluoxetine-induced change of 5-HT homeostasis: distinct impact on behavior and serotonergic fiber wiring

Serena Nazzi (University of Pisa)

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PARALLEL SYMPOSIA | 5th Session

5_3

THE DISTRIBUTED ENGRAM: LARGE-SCALE NEURONAL CIRCUITS UNDERLYING FEAR LEARNING AND EXTINCTION
Under 40 Symposium**Chairs: Ludovico Silvestri – Bianca A. Silva**

Brain circuits for memory update

Bianca A. Silva (National Research Council - CNR, Milan)

BRAin-wide Neuron quantification Toolkit reveals strong sexual dimorphism in the evolution of fear memory

Alessandra Franceschini (University of Florence)

Chromatin plasticity contributes to neuronal selection during memory allocation

Giulia Santoni (Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland)

Insights from the Zona Incerta: inter-area coordination assessed through cell assembly detection

Giulia Arena (Sapienza University of Rome)

SALA PARIGI

PARALLEL SYMPOSIA | 5th Session

5_4



Seeing beyond

RECENT ADVANCES IN 3D ELECTRON MICROSCOPY FOR NEUROSCIENCE

Symposium sponsored by Zeiss

Chairs: Corrado Calì – Maura Francolini

Identifying Brain Connections using 3DEM

Graham Knott (EPFL, Lausanne, Switzerland)

Widespread effects of sleep and sleep loss on synaptic ultrastructure

Luisa De Vivo (University of Camerino, MC)

Multiresolution 3D models of astrocytes and neurons to investigate Brain Energy Metabolism

Corrado Calì (University of Turin)

New horizons in 3D Volume Microscopy Imaging

Francesco Biancardi (Marketing & Business Development Manager Carl Zeiss S.p.A)

SALA LISBONA

PARALLEL SYMPOSIA | 5th Session

5_5

NEUROIMMUNE-DRIVEN PAIN CHRONIFICATION

Chairs: Livio Luongo – Lorenzo Di Cesare Mannelli

Contribution of glial cells in the central and peripheral nervous systems to the development of chronic trigeminal pain and migraine

Stefania Ceruti (University of Milan)

Role of microbiota-gut-brain axis in the development of chronic pain and Neuroinflammation

Francesca Guida (University of Campania “L. Vanvitelli”, Naples)

The Vascular Endothelial Growth Factor-A between pain and neuroprotection: controversies and pharmacological opportunities for a novel candidate biomarker of neuropathy

Lorenzo Di Cesare Mannelli (NEUROFARBA, University of Florence)

Prokineticin system antagonism counteracts osteoarthritis-pain, related neuroinflammation and mood alterations

Giulia Galimberti (University of Milan)



Saturday

TURIN 2023

September **16**



08:30 - 09:45 **PARALLEL SYMPOSIA | 6th Session**

SALA 500

PARALLEL SYMPOSIA | 6th Session

6_1



IN PURSUIT OF HEALTHY BRAIN AGING: UNVEILING THE BIOLOGY OF NOVEL AGE-RELATED MECHANISMS LEADING TO DEMENTIA

**Under 40 Symposium | Symposium sponsored by The
Company of Biologists**

Chairs: Serena Stanga – Claudia Saraceno

Brain iron accumulation: a shared hallmark of aging and
Alzheimer's disease?

Serena Stanga (University of Turin)

Calcium handling and mitochondria quality control in
AD-related dopamine neurons degeneration

Livia La Barbera (Campus Bio-Medico Univer. of Rome)

Investigation of the endo-lysosomal system in
neurodegenerative dementias

Antonio Longobardi (IRCCS Istituto Centro San Giovanni di
Dio Fatebenefratelli, Brescia)

Exploring the role of NCX1 and NCX3 in an in vitro model
of metabolic impairment: potential Neuroprotective
Targets for Alzheimer's Disease

Tiziano Serfilippi (Marche Polytechnic University, Ancona)

SALA LONDRA

PARALLEL SYMPOSIA | 6th Session

6_2

INNOVATIVE BRAIN IMAGING AND PERIPHERAL BIOMARKERS OF PARKINSON'S DISEASE PROGRESSION

Chairs: Francesca Longhena – Sara Belloli

Impact of olfactory mucosa analysis on the clinical
diagnosis of Parkinson's disease and other alpha-
synucleinopathies

Fabio Moda (IRCCS Carlo Besta Neurological Institute, Milan)

Molecular imaging markers of Parkinson's disease:
evaluation in preclinical models

Sara Belloli (IRCCS San Raffaele Scientific Institute, Milan)

Innovative Disease progression markers in PD: which vs how?

Andrea Pilotto (University of Brescia, Brescia)

Looking for reliable biomarkers in skin biopsy of GBA-PD
patients

Claudia Novello (University of Milan)

SALA MADRID

PARALLEL SYMPOSIA | 6th Session

6_3



STEM CELLS MEET GLIAL CELLS: HUMAN iPSC-DERIVED GLIA TO STUDY MYELIN DISEASES

Symposium sponsored by The Company of Biologists

Chairs: Martina Lorenzati – Marco Onorati

Modeling ADLD pathology with human iPSC-derived glial cells: altered phenotypes and rescue strategies

Martina Lorenzati (Neuroscience Institute Cavalieri Ottolenghi NICO, Turin)

Exploiting advanced human iPSC-based models and gene therapy approaches to study mechanisms of disease and disease correction of leukodystrophies

Angela Gritti (San Raffaele Telethon Institute for Gene Therapy, Milan)

Stem cell derived-oligodendrocytes to study and treat myelin diseases

Sabah Mozafari (University of Paris Cité, Paris, France)

Human iPSC-based cellular systems to model Autosomal dominant leukodystrophy

Ingrid Battistella (University of Trento)

SALA PARIGI

PARALLEL SYMPOSIA | 6th Session

6_4

NEUROINFLAMMATION IN THE BASAL GANGLIA NETWORK: IMPLICATIONS FOR NEUROLOGICAL DISEASES

Under 40 Symposium

Chairs: Andrea Mancini – Roberta Schellino

Neuroimmune modulation of basal ganglia network: focus on interleukin-17

Andrea Mancini (University of Perugia)

Role of neuroinflammation in the cognitive decline induced by the intracerebral infusion of alpha synuclein oligomers in a rat model of Parkinson's disease

Maria Francesca Palmas (University of Cagliari)

Intensive exercise sculpts BDNF synaptic functions to counteract alpha-synuclein aggregation effects

Federica Campanelli (Catholic University of the Sacred Heart, Italy)

Transcranial magnetic stimulation restores glial response and microvasculature integrity in experimental Parkinson's disease

Maria De Carluccio (Catholic University of the Sacred Heart, Italy)



SALA LISBONA

PARALLEL SYMPOSIA | 6th Session

6_5

EMERGING FACTORS UNDERLYING NIGROSTRIATAL DOPAMINERGIC SYSTEM DYSFUNCTIONS IN NEUROLOGICAL DISORDERS

Under 40 Symposium

Chairs: Maria Josè Sisalli – Giulia Costa

Withania somnifera influences MDMA-induced hyperthermic, cognitive, neurotoxic and neuroinflammatory effects in mice

Giulia Costa (University of Cagliari)

Study of the role of the dopamine D3 receptor and the nicotinic acetylcholine receptor heteromer in dopaminergic neuron trophism and protection

Giulia Sbrini (University of Brescia)

Detrimental effects of light at 610 nm on dopamine neurons and implications for PD onset

Irene Fasciani (University of L'Aquila)

The extent of dopaminergic nigrostriatal degeneration in MPTP-lesioned monkeys and mice reflects alterations in striatal serine metabolism

Marcello Serra (University of Cagliari)

09:45 - 11:00

PARALLEL SYMPOSIA | 7th Session

SALA 500

PARALLEL SYMPOSIA | 7th Session

7_1

FROM GENES TO ENVIRONMENT: THE GABA SWITCH IN NEUROPSYCHIATRIC DISORDERS

Chair: Roberto Frau – Alessandro Usiello

Synaptic dysfunction in the Angelman syndrome: the role of GABAergic signaling

Matteo Fossati (Humanitas Research Hospital, Rozzano, MI)

Oxytocin and KCC2: turning inhibitory GABA on

Bice Chini (CNR Institute of Neuroscience, Milan)

GABA switch in the prefrontal cortex mediates the psychotic-like (endo)phenotypes induced by sleep deprivation

Roberto Frau (University of Cagliari)

Prenatal IL-6 disrupts the developmental switch of GABAergic transmission in the offspring

Genni Desiato (IRCCS Humanitas Research Hospital, Milan)

SALA LONDRA

PARALLEL SYMPOSIA | 7th Session

7_2



FROM DEVELOPMENT TO DISEASE – HOW ASTROCYTE HETEROGENEITY SCULPTS THE BRAIN

Symposium sponsored by The Company of Biologist International Society for Neurochemistry

Chair: Valentina Cerrato – Veronica Ghiglieri

Origin and diversity of cortical astrocytes

Riccardo Bocchi (University of Geneva, Switzerland)

Unveiling the diversity of cerebellar astrocytes: insights into their molecular identities, development and functions

Valentina Cerrato (University of Turin)

The detrimental effect of Mecp2 null astrocytes on synapses: exploring the molecular mechanisms to find novel druggable targets for Rett syndrome

Angelisa Frasca (University of Milan)

The novel astrocytic marker CETN2 expression correlates with Alzheimer's disease severity

Elisa Degl'Innocenti (University of Pisa)

SALA MADRID

PARALLEL SYMPOSIA | 7th Session

7_3

SYNUCLEINOPATHY AND SYNUCLEINOPENIA: THE TWO FACES OF NEURODEGENERATION

Chairs: Graziella Cappelletti – Antonella Scorziello

The paradigms in α -Synuclein pathology

Roberto Cilia (IRCCS Carlo Besta Neurological Institute, Milan)

Alpha-synuclein synaptic microaggregates: culprit of neurodegeneration and pathology spreading in synucleinopathies?

Arianna Bellucci (University of Brescia)

The interplay between α -Synuclein and microtubules: a relevant interaction?

Samanta Mazzetti (University of Milan)

Neuronal haemoglobin induces loss of dopaminergic neurons in mouse substantia nigra, cognitive deficits and cleavage of endogenous α -synuclein

Carlotta Bon (Italian Institute of Technology, Genoa)



SALA PARIGI

PARALLEL SYMPOSIA | 7th Session

7_4

NON-INVASIVE STIMULATION OF BRAIN NETWORKS: FROM PLASTICITY TO FUNCTIONAL CONNECTIVITY

Chairs: Maria Vittoria Podda – Francesca Macchi

Indirect modulation of brain activity in response to transcranial direct current stimulation in the mouse

Marco Cambiaghi (University of Verona)

Combined Neurorehabilitation: non-invasive approaches in murine models of brain diseases

Francesca Macchi (CNR Neuroscience Institute, Pisa)

Non-invasive stimulation of brain networks: from plasticity to functional connectivity

Fabrizio Vecchio (IRCCS San Raffaele, Rome)

Combining physical activity and anodal tDCS to boost inter-hemispheric functional communication and structural plasticity between the motor cortices in mice

Federica Marchiotto (University of Verona)

SALA LISBONA

PARALLEL SYMPOSIA | 7th Session

7_5

GLIOBLASTOMA MULTIFORME: A BETTER UNDERSTANDING FOR HAVING CLINICALLY PROMISING APPROACHES

Chairs: Alessandro Sessa – Paolo Malatesta

A game of clones: genetic barcoding reveals Myc-driven dynamics in Glioblastoma progression

Davide Ceresa (IRCCS San Martino Polyclinic Hospital, Genoa)

Epigenetic Silencer Factors to repress malignant genetic programs in GBM

Alessandro Sessa (IRCCS San Raffaele Hospital, Milan)

Precision medicine: which role in gliomas?

Francesco Bruno (University of Turin)

CITK catalytic activity inhibition through Lestaurtinib leads to DNA damage, cytokinesis failure and cell death in brain tumors

Alessia Ferraro (University of Turin)

11:00 - 11:30 **COFFEE BREAK**

11:30 - 12:45 **PARALLEL SYMPOSIA | 8th Session**

SALA 500

PARALLEL SYMPOSIA | 8th Session

8_1



MECHANISMS AND THERAPIES OF METABOLIC AND NEUROLOGICAL DISORDERS

Symposium co-organized by SINS and Société des Neurosciences, with the sponsorship of the Neuroscience Institute of Turin (NIT) and of Università Italo Francese - Université Franco Italienne

Chairs: Silvia De Marchis – Michèle Studer

Hypothalamic Bile Acid TGR5 Signaling in Energy Balance
Daniela Cota (University of Bordeaux, France)

Novel extra-hypothalamic roles of GnRH neurons – implications in cognition in mice and humans

Paolo Giacobini (University of Lille, France)

Multiple approaches to identify novel and effective treatments for the Fragile X syndrome

Barbara Bardoni (IPMC, University Côte d'Azur, Nice, France)

Altered morphology of adult-born immature granule neurons and reduced synaptic inhibition in the hippocampal DG of a mouse modeling the neurodevelopmental disorder BBSOAS

Eleonora Dallorto (University of Turin)

SALA LONDRA

PARALLEL SYMPOSIA | 8th Session

8_2

AMYOTROPHIC LATERAL SCLEROSIS: FROM MOLECULAR MECHANISMS TO CLINICAL TRIAL DESIGN

Chairs: Giuseppe Pignataro – Angelo Poletti

Proteotoxic responses in Amyotrophic Lateral Sclerosis
Angelo Poletti (University of Milan)

Factors predicting disease progression in C9ORF72 ALS patients

Andrea Calvo (University of Turin)

Translation of preclinical results: how to build an ALS clinical trial

Jessica Mandrioli (University of Modena e Reggio Emilia)

Increased ADAM 10/17 activity in an animal model of ALS: rationale for targeting ADAMs as a potential therapeutic target?

Paolo Cabras (University of Pavia)



SALA MADRID

PARALLEL SYMPOSIA | 8th Session

8_3

CELL INTRINSIC AND EXTRINSIC REGULATION OF OLIGODENDROCYTE BIOLOGY AND RE-/MYELINATION

Chairs: Marta Fumagalli – Enrica Boda

Transient regulation of focal adhesion via Tensin3 is required for nascent oligodendrocyte differentiation
Carlos Parras (Inserm. Sorbonne Université, Paris, France)

Molecular and functional heterogeneity in dorsal and ventral oligodendrocyte progenitor cells of the mouse forebrain in response to DNA damage

Enrica Boda (University of Turin)

Montelukast improves disease progression in the female SOD1G93A mouse model of ALS by restoring oligodendrocyte maturation and counteracting altered glial reactivity

Tiziana Bonifacino (University of Genoa)

Adenosine A2B receptor as emerging target in myelination: in vitro and in vivo studies

Federica Cherchi (University of Florence)

SALA PARIGI

PARALLEL SYMPOSIA | 8th Session

8_4

INDIVIDUAL NEURODYNAMICS TO PERSONALIZE NEUROMODULATIONS [INPERN]

Chairs: Franca Tecchio – Michela Chiappalone

Why and how interacting with the brain via tES
Alberto Priori (University of Milan)

The role of induced current dynamics in neuromodulation against refractory epilepsy

Vinicius Rosa Cota (University of São João del-Rei, MG, Brazil)

Ongoing neuronal activity as cortical signature in awake and sleep states

Karolina Armonaite (CNR and University of Rome)

The potential of functional connectivity and graph theory measures in identifying alterations in brain plasticity

Chiara Pappalettera (IRCCS San Raffaele, Rome)

SALA LISBONA

PARALLEL SYMPOSIA | 8th Session

8_5

WALKING THROUGH MISFOLDED PROTEINS IN MOVEMENT DISORDERS

Chairs: Patrizia Longone – Ezia Guatteo

Role of LRRK2 in alpha-synuclein neuropathology

Michele Morari (University of Ferrara)

Rabphilin-3A as a novel synaptic target in Parkinson's disease

Fabrizio Gardoni (University of Milan)

Primary skin fibroblasts as a model of the tauopathy

Progressive Supranuclear Palsy

Patrizia Longone (IRCCS Santa Lucia Foundation, Rome)

Clusterin in Parkinson's disease pathology: a study in human brain

Sara Pizzi (University of Milan)

12:45 - 13:30

PLENARY LECTURE 3

SALA 500

NEURONAL CORRELATES OF SOCIAL BEHAVIOR IN HEALTH AND DISEASE

Ewelina Knapska (Nencki Institute of Experimental
Biology of Polish Academy of Sciences, Warsaw, Poland)

Chair: Viviana Trezza

13:30 - 15:45

LUNCH BREAK AND POSTER SESSION 2



14:30 - 15:45 **ROUND TABLE | Italian Brain Council**

SALA 500

PERSPECTIVES AND CHALLENGES BRAIN RESEARCH: TOWARDS BRAIN HEALTH ERA

Chairs: Alessandro Vercelli – Monica DiLuca

Seeking fundamental understanding of the brain to have
immediate use for society

Alessandro Vercelli (SINS)

The value of clinical research in brain area

Alessandro Padovani (SIN)

The value of research in mental health

Paola Rocca (SIP)

The importance of the patients' voice

Elena Muserra (Smarathon)

From brain health research to innovation

Carmen Mazzola (Lundbeck)

Fostering Innovation in Brain research: the project
ITTBioMed

Giorgio Racagni – Ludovico Baldessin

The value of collaboration in European Brain research

Area: from EBRA to European Brain Health Partnership

EBC (Recorded message)

Role of national advocacy

Giuseppe Pignataro

Open discussion

14:30 - 15:45 **SYMPOSIUM**

SALA LONDRA

0_2

NETWORK CORRELATES OF BRAIN DYSFUNCTION IN AUTISM: FROM DEEP PHENOTYPING TO DRUG DISCOVERY

Chairs: Alessio Masi – Viviana Trezza

Altered cortical sensory processing and functional connectivity in SHANK3B+/- mice

Anna Letizia Allegra Mascaro (CNR Institute of Neuroscience, Pisa)

Harnessing multiscale connectivity in the Shank3 mouse model to test the therapeutic potential of hallucinogens

Alessio Masi (University of Florence)

Etiological decoding of functional dysconnectivity in autism via cross-species fMRI

Alessandro Gozzi (Italian Institute of Technology, Rovereto)

Unveiling Selective Neuroanatomical Alterations in Autism Spectrum Disorder Using a Bayesian and Reverse Inference Approach

Jordi Manuello (University of Turin)

15:45 - 16:30 **PLENARY LECTURE 4**

SALA 500

MICROGLIA IN THE HEALTHY AND DISEASED BRAIN

Rosa Chiara Paolicelli (Department of Biomedical Sciences, University of Lausanne, Switzerland)

Chair: Maria Vincenza Catania

16:30 - 17:00 **COFFEE BREAK**



17:00 - 18:15

PARALLEL SYMPOSIA | 9th Session

SALA 500

PARALLEL SYMPOSIA | 9th Session

9_1

MISFOLDED PROTEINS AND MECHANISMS OF NEURODEGENERATION

SIN – SINS Joint Symposium

Chairs: Monica DiLuca (SINS) – Carlo Ferrarese (SIN)

The glutamatergic synapse: a chatroom for Amyloid- β peptide and the nucleus

Elena Marcello (University of Milan)

Beta-amyloid and neuroinflammation

Lucio Tremolizzo (University of Milano Bicocca, Milan)

Alpha-synuclein: from preclinical findings to clinical implications

Giulia Di Lazzaro (Fondazione Policlinico Universitario Agostino Gemelli IRCCS)

TDP-43 proteinopathies: the role of extracellular vesicles

Valeria Crippa (University of Milan)

SALA LONDRA

PARALLEL SYMPOSIA | 9th Session

9_2

FROM ONTOGENESIS TO PHYSIOLOGY AND CELL REPLACEMENT: INSIGHT INTO THE STRIATUM

Chairs: Dario Besusso – Paolo Peretto

Insights on human striatal development at single cell resolution in vivo and in vitro

Dario Besusso (University of Milan)

The physiological role of adult neural stem cells: regulating striatal activity

Marco Bacigaluppi (IRCCS San Raffaele Hospital and Vita-Salute San Raffaele University, Milan)

Reconstruction of striatal circuits and promotion of functional recovery in Huntington's Disease: advancement in cell-based approaches

Annalisa Buffo (University of Turin)

Exploring striatal graft functions through in vivo calcium recordings in a rat model of Huntington's Disease

Gabriela Gomez-Gonzalez (Neuroscience Institute Cavalieri Ottolenghi, Turin)

SALA MADRID

PARALLEL SYMPOSIA | 9th Session

9_3

PATHOGENIC MECHANISMS OF AUTOIMMUNE ENCEPHALITIS ASSOCIATED WITH SYNAPTIC AUTOANTIBODIES

Chairs: Raffaele Iorio – Alessandro Dinoto

Autoimmune encephalitis: bridging basic and clinical neuroscience

Raffaele Iorio (Catholic University of the Sacred Heart, Italy)

Human recombinant monoclonal antibodies as critical tools to investigate autoimmune encephalitis pathogenesis

Gregorio Spagni (Charité - Universitätsmedizin Berlin, Germany)

Experimental models of autoimmune encephalitis

Maria Pia Giannoccaro (University of Bologna)

SALA PARIGI

PARALLEL SYMPOSIA | 9th Session

9_4

SEX MODULATES EARLY-LIFE SOCIAL EXPERIENCES EFFECTS ON BRAIN AND BEHAVIOR

Chairs: Roberto Ciccocioppo – Fabio Fumagalli

Early-life experiences differently shape social interaction and the glutamate synapse: focus on sex-dependent changes

Lucia Caffino (University of Milan)

Age- and sex- dependent outcome of early social experiences on behavior and stress-related endogenous systems

Laura Rullo (University of Bologna)

Interaction of stress, genetic predisposition, and social isolation in sex differences in alcohol seeking

Nazzareno Cannella (University of Camerino, MC)

Impact of early-life stress and gonadal hormones on the reward systems of ABA rats

Chiara Ballan (University of Turin)



16th

SEPTEMBER

20th NATIONAL CONGRESS OF THE
ITALIAN SOCIETY FOR NEUROSCIENCE

SALA LISBONA

PARALLEL SYMPOSIA | 9th Session

9_5



BIG DATA IN NEUROSCIENCE: LARGE SCALE CHARACTERIZATION OF BRAIN PHYSIOLOGY

Symposium sponsored by Miltényi Biotec

Chairs: Stefano Zucca – Nicola Simola

Tactile perception distributed through cortical neuronal populations in rats

Mathew Diamond (International School for Advanced Studies, Trieste)

Whole-brain representation of imprinted courtship cues

Stefano Zucca (University of Turin)

Neuroscience and Open Science: a winning combination

Valentina Pasquale (Italian Institute of Technology, Genoa)

Encoding brain states from intracortical recordings in freely behaving macaques

Mattia Delgrosso (University of Parma)

18:15 - 19:15

SINS GENERAL ASSEMBLY

SALA 500

20:30

PRESIDENTIAL DINNER

MUSEO EGIZIO – GALLERIA DEI RE



Sunday

TURIN 2023

September **17**



17th

SEPTEMBER

20th NATIONAL CONGRESS OF THE
ITALIAN SOCIETY FOR NEUROSCIENCE

08:30 - 09:45 **PARALLEL SYMPOSIA | 10th SESSION**

SALA 500

PARALLEL SYMPOSIA | 10th Session

10_1

NEURAL BASES OF PERIPERSONAL SPACE: ANIMAL MODELS, HEALTH AND DISEASE

Chairs: Davide Albertini - Rossella Breveglieri

Visuo-tactile place fields of ventral premotor neurons in freely moving monkeys

Davide Albertini (University of Parma)

Neurophysiological correlates of peripersonal space representation in human and non-human primates

Aoife M. Fitzpatrick (Italian Institute of Technology, Rome)

Self-other body boundaries in healthy and pathological brain

Carlotta Fossataro (University of Turin)

The retinotopic organization of the macaque superior colliculus

Alessia Sepe (KU Leuven, Leuven, Belgium)

SALA LONDRA

PARALLEL SYMPOSIA | 10th Session

10_2

ADVANCED APPLICATIONS OF GENE THERAPY AND EDITING FOR TREATING NEUROLOGICAL DISORDERS

Chairs: Vania Broccoli – Gabriele Lignani

Manipulation of *Scn1a* gene expression as gene therapy for Dravet Syndrome

Gaia Colasante (San Raffaele Hospital, Milan)

On-demand Gene Therapy for Neurological Diseases

Gabriele Lignani (UCL Queen Square Institute of Neurology, London, UK)

Targeting astrocytes with editing technologies to treat Alexander Disease

Vasco Meneghini (San Raffaele Telethon Institute for Gene Therapy - SR-Tiget, Milan)

SALA MADRID

PARALLEL SYMPOSIA | 10th Session

10_3

DIFFERENT STRATEGIES TO UNTANGLE THE NEUROBIOLOGY OF PSYCHIATRIC DISORDERS

Chairs: Alessio Squassina – Patrizia Romualdi

Chronic exposure to glucocorticoids during critical neurodevelopmental periods leads to lasting shifts in neuronal type distribution and overall brain architecture
Cristiana Cruceanu (Karolinska Institutet, Stockholm, Sweden)

Brain physiology in patients at risk for psychosis
Alessandro Bertolino (University of Bari Aldo Moro, Bari)

Advancing research on psychiatric disorders through multi-omic approaches and pleiotropic analyses applied to genomic data

Claudia Pisanu (University of Cagliari)

CAPRIN1-linked neurodevelopmental disorder: understanding the role of CAPRIN1 loss on neuronal differentiation, neurogenesis, and proliferation

Lisa Pavinato (University of Turin)

SALA PARIGI

PARALLEL SYMPOSIA | 10th Session

10_4



CODING AND NON-CODING RNA IN HEALTH AND DISEASES OF THE CENTRAL NERVOUS SYSTEM

Under 40 Symposium | Sponsored by Cyanagen

Chairs: Stella Gagliardi – Marco Peviani

Brain-derived extracellular vesicles cargo in a syndromic autism-spectrum disorder: disease propagation molecules and diagnostic-therapeutic platform

Antonia Gurgone (University of Turin)

Role of genetic and epigenetic mechanisms in the definition of the alternative splicing and circular RNA landscapes in multiple sclerosis

Elvezia Maria Paraboschi (Humanitas University, Pieve Emanuele, Milan)

lncRNAs at the interplay between neurodegeneration and cancer: a role for MINCR

Cecilia Pandini (University of Milan)

Profiling the cellular and molecular blueprint of the human dentate gyrus in MCI patients by snRNAseq

Francesca Fagiani (IRCCS San Raffaele Hospital, Milan)



17th

SEPTEMBER

20th NATIONAL CONGRESS OF THE
ITALIAN SOCIETY FOR NEUROSCIENCE

SALA LISBONA

PARALLEL SYMPOSIA | 10th Session

10_5

INSIDE AND OUTSIDE THE CNS: SEARCHING FOR TARGETS IN NEURODEGENERATION

Chairs: Simona Federica Spampinato – Giovanni Nardo

Deletion of the major Ca²⁺ decoder in astrocytes, calcineurin, to rescue memory and neuroinflammation in Alzheimer's mouse models

Laura Tapella (University of Eastern Piedmont, Novara)

Targeting the crosstalk among the cellular components of the BBB in neurodegenerative disorders

Simona Federica Spampinato (University of Turin)

Boosting immune muscle response improved motor function in ALS mice

Maria Chiara Trolese (Mario Negri Institute, Milan)

Interplay between the Gut Microbiome and inflammation in patients with Alzheimer's Disease and the effect of probiotic intervention

Annamaria Cattaneo (University of Milan)

09:45 - 11:00

PARALLEL SYMPOSIA | 11th SESSION

SALA 500

PARALLEL SYMPOSIA | 11th Session

11_1

MOLECULAR MECHANISMS OF AUTISM SPECTRUM DISORDERS

Chairs: Eriola Hoxha – Antonella De Jaco

Glucocorticoids rescue the cellular phenotype caused by the autism-linked mutation Arg451Cys in Neuroligin3 in different cell systems

Antonella De Jaco (Sapienza University of Rome)

Somatosensory abnormalities in genetic models of autism spectrum disorders

Yuri Bozzi (University of Trento)

Assessing the contribution of altered cholinergic signaling in ASD social deficits

Marilena Griguoli (European Brain Research Institute - EBRI, Rome)

Transient neocortical excitatory / inhibitory imbalance during early infancy leads to permanent social impairments

Alexia Stuefer (Italian Institute of Technology, Genoa)

SALA LONDRA

PARALLEL SYMPOSIA | 11th Session

11_2

UNFORGETTABLE MEMORIES: NEURAL/MOLECULAR PROCESSES IN HYPERMNESIA AND IMPAIRED EXTINCTION

Chairs: Daniela Laricchiuta – Veronica Ghiglieri

Neural mechanisms of enhanced recall and deficient forgetting in individuals with hypermnesia

Valerio Santangelo (University of Perugia)

Modulation of Hypermnesia in an Animal Model of PTSD: Exploring Resilience and Vulnerability

Patrizia Campolongo (Sapienza University and IRCCS Santa Lucia Foundation, Rome)

Eternal sunshine of the spotless mind: transcriptome unveils maladaptive alterations in the fear matrix preceding the predisposing to not extinguish traumatic memories

Daniela Laricchiuta (University of Perugia)

SALA MADRID

PARALLEL SYMPOSIA | 11th Session

11_3

THE ROLE OF GLIAL CELLS IN PNS DEVELOPMENT AND PATHOLOGY

Symposium organized in partnership with ASNP (Associazione Italiana per lo studio del Sistema Nervoso Periferico)

Chairs: Guido Cavaletti – Alessandro Vercelli

Satellite glial cells of dorsal root ganglia in chemotherapy-induced peripheral neurotoxicity

Valentina Carozzi (University of Milano-Bicocca, Monza)

Myotubularin-related (MTMR) phosphoinositide phosphatases and inherited neuropathies

Alessandra Bolino (San Raffaele Scientific Institute, Milan)

Mitochondrial and lysosomal dysfunction in Charcot-Marie-Tooth

Cecilia Bucci (University of Salento, Lecce)



17th

SEPTEMBER

20th NATIONAL CONGRESS OF THE
ITALIAN SOCIETY FOR NEUROSCIENCE

SALA PARIGI

PARALLEL SYMPOSIA | 11th Session

11_4

LIPID METABOLISM AND NEURODEGENERATIVE DISORDERS: NEW INSIGHTS AND THERAPEUTIC PERSPECTIVES

Chairs: Francesca Zimetti – Antonietta Vilella

Deciphering the lipid hypothesis in Alzheimer's disease
Marco Spallazzi (Azienda ospedaliero-universitaria di Parma)

Emerging role of HDL in neurodegenerative disorders
Laura Calabresi (University of Milan)

PCSK9 as potential new player in Alzheimer's disease
Francesca Zimetti (University of Parma)

BET protein inhibition as a new target for Niemann-Pick type C1 disease

Martina Parente (University of Roma Tre, Rome)

SALA LISBONA

PARALLEL SYMPOSIA | 11th Session

11_5

KETAMINE TO UNDERSTAND THE NATURE OF RAPID ANTIDEPRESSANT ACTION

Chairs: Laura Musazzi – Carmela Matrone

Transcriptomic signature of ketamine antidepressant effect in a rat model of depression

Laura Musazzi (University of Milano-Bicocca, Milan)

MicroRNAs in neuronal remodeling induced by stress: effects of ketamine

Alessandro Barbon (University of Brescia)

Transcriptomic and functional activity of ketamine on human iPSCs derived neurons

Carlo Sala (CNR Neuroscience Institute, Milan)

Ketamine controls glial reactivity and neuronal changes observed in the prefrontal cortex of rats vulnerable to acute footshock stress

Roberta Facchinetti (Sapienza University of Rome)

11:00 - 11:30

COFFEE BREAK

11:30 - 12:45

PARALLEL SYMPOSIA | 12th Session

SALA 500

PARALLEL SYMPOSIA | 12th Session

12_1

PERIPHERY-CNS MISCOMMUNICATION IN NEURODEGENERATION: FOCUS ON BRAIN BARRIERS

Chairs: Annarosa Carta – Renato Bernardini

Role of myeloid cell crosstalk in meningeal inflammation during central nervous system autoimmune and neurodegenerative diseases

Gabriele Angelini (University of Verona)

Periphery-CNS miscommunication in neurodegeneration: focus on brain barriers

Maria Teresa Viscomi (Cattolica University, Rome)

Rebalancing the immune response mitigates neurodegeneration and improves functional outcomes in a mouse model of Alzheimer's disease

Chiara Burgaletto (University of Catania)

Central neurovascular dynamics and thrombin pleiotropy following spinal nerve injury

Ciro De Luca (University of Campania "Luigi Vanvitelli", Naples)

SALA LONDRA

PARALLEL SYMPOSIA | 12th Session

12_2

BUILDING CORTICAL CIRCUITS: ONE GENE, ONE PROTEIN, ONE CELL AT THE TIME

Chairs: Giulia Quattrocolo – Elisabetta Vegeto

Spontaneous activity and neuronal diversity in the developing cerebral cortex

Simona Lodato (Humanitas Research Center, Milan)

Integrin adhesion in cortical circuit assembly: From molecular interactions to neurodevelopmental disorders

Lorenzo Cingolani (University of Trieste)

The role of Cajal-Retzius cells in the maturation of the hippocampal circuit

Giulia Quattrocolo (Kavli Institute for Systems Neuroscience - NTNU, Trondheim, Norway)

TBC1D24 interacts with V-ATPase and regulates pH homeostasis in neurons

Sara Pepe (IRCCS San Martino Polyclinic Hospital, Genoa)



17th

SEPTEMBER

20th NATIONAL CONGRESS OF THE
ITALIAN SOCIETY FOR NEUROSCIENCE

SALA MADRID

PARALLEL SYMPOSIA | 12th Session

12_3

THE IMPORTANCE OF INNOVATIVE EXPERIMENTAL MODELS IN NEUROSCIENCE RESEARCH

Chairs: Cristina Cereda – Stephana Carelli

Murine cerebral organoids to study neurodevelopmental disorders

Emanuela Bottani (University of Verona)

Organoids, neuruloids, gastruloids: the “-oid” revolution in neuroscience research

Alessandro Rosa (Sapienza University, Rome)

Dealing with 3D culture systems: some applicative examples (pro and cons)

Stephana Carelli (University of Milan)

3D microglial morphology reconstruction as a tool to investigate the role of neuroinflammation in vulnerability and resilience to chronic stress

Jessica Mingardi (University of Milano-Bicocca, Milan)

Development of nanostructured materials for peripheral nervous system (PNS) pathologies

Luca Scaccini (Scuola Normale Superiore in Pisa)

SALA PARIGI

PARALLEL SYMPOSIA | 12th Session

12_4

NOVEL MOLECULAR PLAYERS AFFECTING SYNAPTIC FUNCTIONS IN MOVEMENT DISORDERS

Under 40 Symposium

Chairs: Gaia Faustini – Emanuele Frattini

Combined two-photon-based imaging of striatal dopaminergic fibers and integrative assessment of synaptic markers allows to stage retrograde degeneration in α -synuclein transgenic mice

Gaia Faustini (University of Brescia)

Alpha-synuclein in DYT1 dystonia

Giulia Ponterio (IRCCS Santa Lucia Foundation, Rome)

Post synaptic movement disorders

Federica Graziola (Istituto Neurologico Carlo Besta, Milan)

Regulation of SNCA expression through the lncRNA SNCA-AS1 leads to a profound impact on synaptic modulation with possible implications in Parkinson's Disease and aging

Federica Rey (University of Milan)

SALA LISBONA

PARALLEL SYMPOSIA | 12th Session

12_5

NOVEL PSYCHOACTIVE SUBSTANCES TOXICOLOGY: FROM PRECLINICAL RESEARCH TO HUMAN PSYCHOPATHOLOGY

Chair: Luigia Trabace

Exploring the effects of NPS on brain and behavior:
preclinical findings

Liana Fattore (CNR Institute of Neuroscience, Cagliari)
Cardiovascular and respiratory effects of synthetic
cannabinoids: from emergency alerts to preclinical
studies

Matteo Marti (University of Ferrara)
NPS use in clubbers and disco goers: toxicological
features, psychotropic effects and psychopathological
consequences

Stefania Schiavone (University of Foggia)

12:45 - 13:30

PLENARY LECTURE 5

SALA 500

IMPLANTABLE AND WEARABLE NEUROTECHNOLOGIES TO UNDERSTAND AND RESTORE NEURAL FUNCTIONS

Dedicated to Matteo Caleo

Silvestro Micera (The Biorobotics Institute, Scuola Superiore
Sant'Anna, Pisa)

Chairs: Alessandro Cellerino - Yuri Bozzi

13:30 - 14:00

CLOSING CEREMONY

SALA 500



POSTER INDEX



Aging, neurodegeneration and Alzheimer's disease

91 **Bay-41 acts on sGC in microglia to reduce plaque load in Alzheimer's disease mice independently of Clec7A**

Giovanni Cosco

Giovanni Cosco (1), Burcu Seker (2), Joshua Shrouder (2), Nikolaus Plesnila (2)

1: Università degli Studi di Padova, Italy; 2: Institute for Stroke and Dementia Research (ISD), Klinikum der Universität München, Germany

Cognition and behavior

92 **Dissecting the role of Androgen receptor in the central nervous system**

Emanuela Zuccaro

Emanuela Zuccaro (1,2), Elisa Bregolin (1,2), Diana Piol (1), Maria Pennuto (1,2)

1: Department of Biomedical Sciences, University of Padova, Italy; 2: Veneto Institute of Molecular Medicine (VIMM), Padova, Italy

Glial cells in physiology and pathology

93 **The interaction between gut microbiota and peripheral nervous system**

Giulia Ronchi

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1: Department of Clinical and Biological Sciences & Neuroscience Institute Cavalieri Ottolenghi (NICO), University of Torino, Orbassano, 10043, (Torino), Italy; 2: Department of Molecular Medicine, University of Padova, Padova, Italy; 3: Department of Life Sciences and Systems Biology, University of Torino, Torino, Italy; 4: Institute of Neuroanatomy and Cell Biology, Hannover Medical School, 30625 Hannover, Lower-Saxony, Germany; 5: Institute for Laboratory Animal Science and Central Animal Facility, Hannover Medical School, 30625 Hannover, Lower-Saxony, Germany; 6: Center for Systems Neuroscience (ZSN), Hannover, 30559 Hannover, Lower-Saxony, Germany

Innovative methods and technologies in neuroscience

94 **Nanocarriers as vectors to up- or downregulate signal transduction pathways in peripheral nerve regeneration**

Marina García Bejarano

Marina García Bejarano (1,2), Carlos Cuestas Ayllón (2), Isabelle Perroteau (1), Jesús Martínez de la Fuente (2), Giovanna Gambarotta (1)

1: Department of Clinical and Biological Sciences (DSCB) and Neuroscience Institute Cavalieri Ottolenghi (NICO), University of Torino, 10043 Orbassano (Torino), Italy; 2: Institute of Nanoscience and Materials of Aragon (INMA), University of Zaragoza, 50009 Zaragoza (Zaragoza), Spain

- 95 Pig decellularized peripheral nerve supports fiber regeneration**
Stefania Raimondo
Stefania Raimondo (1), Luisa Muratori (1), Giulia Ronchi (1), Alessandro Crosio (1,2), Arianna Lovati (3)
1: Department of Clinical and Biological Sciences, Neuroscience Institute Cavalieri Ottolenghi (NICO), University of Turin, Turin, Italy; 2: Reconstructive Microsurgery and Hand surgery Unit, ASST Pini-CTO Milano, Italy; 3: Cell and Tissue Engineering Laboratory, IRCCS Istituto Ortopedico Galeazzi, Milan, Italy
- 96 Microtopographies and phosphodiesterase inhibitors to improve the regenerative capabilities of a chitosan membrane. an in-depth study on nervous cells**
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1: Department of Clinical and Biological Sciences, and Cavalieri Ottolenghi Neuroscience Institute, University of Turin; 2: Division of Urology, Department of Oncology, and Department of Clinical and Biological Sciences, San Luigi Gonzaga Hospital, University of Turin; 3: NEST (National Enterprise for nanoScience and nanoTechnology), Istituto Nanoscienze-CNR & Scuola Normale Superiore, Pisa
- 97 Study of starch-derived fibres used as a scaffold to promote peripheral nerve regeneration**
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1: University of Torino, Italy; 2: Department of Chemistry, Nis Interdepartmental Centre, University of Torino; 3: Neuroscience Institute Cavalieri Ottolenghi, University of Torino
- 98 Role of fresh skeletal muscle fibers in supporting vascularization and Schwann cell migration during peripheral nerve regeneration within a chitosan conduit**
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Debora Molinaro (1), Federica Zen (1), Benedetta Elena Fornasari (1), Giulia Ronchi (1), Alessandro Crosio (1,2), Giovanna Gambarotta (1)
1: Department of Clinical and Biological Sciences (DSCB) and Neuroscience Institute Cavalieri Ottolenghi (NICO), University of Turin, Italy; 2: Hand Surgery and Reconstructive Microsurgery Department, CTO, ASST Gaetano Pini, Milan, Italy
- 99 Fibrin-collagen hydrogel with or without adipose-derived mesenchymal stem cells enriched chitosan conduits for critical nerve gap repair**
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1: Department of Clinical and biological sciences, University of Torino, Torino, Italy; 2: Neuroscience Institute Cavalieri Ottolenghi, University of Torino, Torino, Italy; 3: Department of Histology, Tissue Engineering Group, University of Granada, Granada, Spain; 4: Instituto de Investigacion Biosanitaria, Ibs. GRANADA, Granada, Spain; 5: Ecole polytechnique fédérale de Lausanne, Switzerland
- 100 Strategies to improve cavernous nerve regeneration after radical prostatectomy**
Luisa Muratori
Luisa Muratori (1), Federica Fregnan (1), Alessandro Crosio (2), Federica Zen (1), Matteo Manfredi (3), Ilaria Tonazzini (4), Juliette Meziere (3), Francesco Porpiglia (3), Stefano Geuna (1), Stefania Raimondo (1)
1: Department of Clinical and Biological Sciences & Neuroscience Institute "Cavalieri Ottolenghi" (NICO), Orbassano (To), 10043, Italy; 2: UOC Chirurgia della Mano e Microchirurgia Ricostruttiva - ASST Gaetano Pini P.zza A. Ferrari 1 - 20122 Milano; 3: Department of Oncology, Division of Urology, San Luigi Gonzaga Hospital, University of Turin Orbassano (To), 10043, Italy; 4: NEST (National Enterprise for nanoScience and nanoTechnology), Istituto Nanoscienze-CNR & Scuola Normale Superiore, Piazza San Silvestro 12, 56127, Pisa, Italy

- 101 Analysis of the muscular fibre contribution to the early stage of nerve regeneration inside a vein graft enriched with fresh skeletal muscle**
Federica Zen
Federica Zen (1,2), Alessandro Crosio (1,3), Giulia Ronchi (1,2), Debora Molinaro (1), Stefano Geuna (1,2), Giovanna Gambarotta (1,2), Stefania Raimondo (1,2)
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- 102 Investigation on carbon nanotubes-based devices for peripheral nerve injury recovery**
Marta Confalonieri
Marta Confalonieri (1), Elena Stocco (2), Silvia Barbon (2), Lucia Petrelli (2), Martina Contran (2), Ludovica Ceroni (3), Cesare Tiengo (4), Silvia Todros (1), Piero Giovanni Pavan (1), Veronica Macchi (2), Enzo Menna (3), Raffaele De Caro (2), Andrea Porzionato (2)
1: Department of Industrial Engineering, University of Padova, Italy; 2: Department of Neurosciences, Section of Human Anatomy, University of Padova, Italy; 3: Department of Chemical Sciences, University of Padova, Italy; 4: Department of Neurosciences, Clinic of Plastic Surgery, University of Padova, Italy

Muscle and motor neuron disorders

- 104 Sensorimotor peripheral innervation in Duchenne muscular Dystrophy: spotlights on the sciatic nerve of dystrophic mdx mice**
Silvia Di Nuzzo
Silvia Di Nuzzo (1), Francesca Mastrostefano (1), Marzia Soligo (2), Valerio Magnaghi (3), Valentina Ferretti (1), Maria Egle De Stefano (1)
1: Sapienza University of Rome, Italy; 2: Inst. of Translational Pharmacology, CNR, Rome, Italy; 3: Università degli Studi di Milano, Milan, Italy.

Neuroinflammation

- 105 Increased levels of glucosyl-sterols induce intestinal inflammation possibly causing neurodegeneration**
Francesca Terrin
Francesca Terrin (1), Sofia Faggin (1), Giuseppe Borsato (2), Fabrizio Fabris (2), Alessandro Scarso (2), Stefano Cagnin (1), Maria Cecilia Giron (1), Nicoletta Plotegher (1), Luisa Dalla Valle (1)
1: University of Padua, Padua, Italy; 2: Ca' Foscari University of Venice, Venice, Italy

106 **Cross-talk between intrinsic and extrinsic factors in importin α 3 mutant mice**

Giada Musso

Giada Musso (1), Sofia Dotta (1), Amisha Parmar (1), Livia Testa (1), Franziska Rother (2,3), Michael Bader (2,3,4), Letizia Marvaldi (1)

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107 **The role of importin α 3 in sensory neurons upon in vitro injury**

Amisha Parmar

Amisha Parmar (1), Livia Testa (1), Sofia Dotta (1), Giada Musso (1), Ferdinando Di Cunto (1), Franziska Rother (2,3), Michael Bader (2,3,4), Letizia Marvaldi (1)

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108 **A comparison of young and aged neuronal growth in importin α 3 deficient mice**

Sofia Dotta

Sofia Dotta (1), Giada Musso (1), Amisha Parmar (1), Livia Testa (1), Franziska Rother (2,3), Michael Bader (2,3,4), Letizia Marvaldi (1)

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Applications and development of neuroimaging

002/1 **Fluorescently labelled trodusquemine as myelin marker compatible with tissue clearing techniques**

Marta Rojas-Rodriguez

Marta Rojas-Rodriguez (1), Claudia Capitini (1,2), Alessandra Franceschini (1,3), Irene Costantini (1,4), Martino Calamai (1,2)

1: LENS-European laboratory for non linear spectroscopy, Italy; 2: National Institute of Optics –National Research Council (CNR-INO); 3: Department of Physics and Astronomy, University of Florence; 4: Department of Biology, University of Florence

003/1 **Rewiring dopaminergic nigral connections in the human brain: a multi-scale and integrated study**

Giovanni Cirillo

Giovanni Cirillo (1), Giuseppina Caiazzo (2), Mario Cirillo (2), Michele Papa (1), Fabrizio Esposito (2)
1: Division of Human Anatomy, Neuronal Network Morphology & Systems Biology Lab, University of Campania "Luigi Vanvitelli", Italy; 2: Department of Advanced Medical and Surgical Sciences, University of Campania "Luigi Vanvitelli", Italy

Artificial intelligence in neuroscience

004/1 **A new artificial intelligence drug repurposing approach for fibromyalgia**

Sveva Bonomi

Sveva Bonomi, Mauro Fasano, Tiziana Alberio
Laboratory of Biochemistry and Functional Proteomics, Dept. of Science and High Technology, University of Insubria, Busto Arsizio (VA)

Autism and related disorders

005/1 **Effects and mechanism of action of psilocybin in a genetic rat model of autism**

Valeria Buzzelli

Valeria Buzzelli (1), Fabrizio Ascone (1), Emilia Carbone (1), Antonia Manduca (1), Alessandro Feo (1), Marvin Hausman (2), Viviana Trezza (1)

1: Department of Science, Section of Biomedical Sciences and Technologies, University "Roma Tre", Rome, Italy; 2: Nova Mentis Life Science Corp., Vancouver BC, Canada

006/1 **Early appearance of developmental brain alterations in a mouse model of CDKL5 deficiency disorder**

Beatrice Uguagliati

Beatrice Uguagliati, Marianna Tassinari, Stefania Trazzi, Camilla Bruna Cerchier, Ottavia Vera Cavina, Nicola Mottolese, Manuela Loi, Giulia Candini, Giorgio Medici, Elisabetta Ciani
Department of Biomedical and Neuromotor Science, University of Bologna

- 007/1 Characterization of the transcriptional landscape of endogenous retroviruses at the fetal-maternal interface in a mouse model of Autism Spectrum Disorder**
Martina Giudice
 Chiara Cipriani (1), Antonella Camaioni (2), Anna Maria Tartaglione (3), Martina Giudice (1), Vita Petrone (1), Claudia Matteucci (1), Gemma Calamandrei (3), Paola Sinibaldi-Vallebona (1,4), Laura Ricceri (3), Emanuela Balestrieri (1)
1: Department of Experimental Medicine, University of Rome Tor Vergata, Rome, Italy; 2: Department of Biomedicine and Prevention, University of Rome Tor Vergata, Rome, Italy; 3: Centre for Behavioural Sciences and Mental Health, Istituto Superiore di Sanità, Rome, Italy; 4: Institute of Translational Pharmacology, National Research Council, Rome, Italy
- 008/1 Expanding the clinical spectrum of PPP3CA variants: alternative isoforms matter**
Silvia Castiglioni
 Silvia Castiglioni (1), Antonella Lettieri (1), Elisabetta Di Fede (1), Lidia Pezzani (2,3), Silvia Ancona (1), Elisa Colombo (1), Chiara Parodi (1), Paolo Grazioli (1), Daniele Bottai (4), Carlotta Pipolo (1), Laura Pezzoli (5), Donatella Milani (2), Maria Iascone (5), Valentina Massa (1,6), Cristina Gervasini (1,6)
1: Department of Health Sciences, Università degli Studi di Milano; 2: Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan; 3: Molecular Genetics Section, Medical Genetics Laboratory, Papa Giovanni XXIII Hospital, Bergamo; 4: Department of Pharmaceutical Sciences, Section of Pharmacology and Bio-sciences, Università degli Studi di Milano; 5: Pediatrics, Papa Giovanni XXIII Hospital, Bergamo; 6: "Aldo Ravelli" Center for Neurotechnology and Experimental Brain Therapeutics, Università degli Studi di Milano.
- 009/1 Study of cholesterol metabolism in Rett syndrome: a new role for BET proteins**
Michela Varone
 Michela Varone, Noemi Martella, Mayra Colardo, Marco Segatto
Department of Biosciences and Territory, University of Molise, Contrada Fonte Lappone, 86090 Pesche, Italy
- 010/1 Prioritization of ASD-candidate genes by a systems biology approach**
Veronica Remori
 Veronica Remori (1,2), Heather Bondi (1), Manuel Airoidi (1), Diana Carli (3,4), Giulia Borini (3), Chiara Davico (5), Lisa Pavinato (3,6,7), Emanuela Nobile (8), Roberta Marinoni (9), Eleonora Di Gregorio (9), Roberto Keller (8), Alessandro Musso (3), Giovanni Battista Ferrero (10), Alfredo Brusco (3,9), Mauro Fasano (1,11)
1: Department of Science and High Technology (DiSAT), University of Insubria, Como; 2: Department of Information Engineering and Mathematics, University of Siena, Siena; 3: Department of Medical Sciences, University of Torino, Torino; 4: Immunogenetics and Transplant Biology, AOU Città della Salute e della Scienza, Torino; 5: Department of Public health and Pediatrics, University of Torino, Torino; 6: Institute of Oncology Research (IOR), BIOS+, Bellinzona, Switzerland; 7: Università della Svizzera Italiana, Lugano, Switzerland; 8: Adult Autism Center, DSM Local Health Unit, Torino; 9: Medical Genetics Unit, AOU Città della Salute e della Scienza, Torino; 10: Department of Clinical and Biological Sciences, University of Torino, Torino; 11: Center of Research in Neuroscience, University of Insubria, Busto Arsizio
- 011/1 Sex-specific autistic-like endophenotypes in a rat model of Fragile X Syndrome: role of endocannabinoid neurotransmission**
Fabrizio Ascone
 Fabrizio Ascone (1), Valeria Buzzelli (1), Alessandro Rava (1), Alessandro Feo (1), Antonia Manduca (1,2), Viviana Trezza (1)
1: Department of Science, Section of Biomedical Sciences and Technologies, University "Roma Tre", Rome, Italy; 2: Department of Physiology and Pharmacology "V. Erspamer", Sapienza University of Rome, Rome, Italy
- 012/1 The therapeutic potential of psychedelics on the behavioral and synaptic abnormalities of the Shank3 mouse model of Autism Spectrum Disorder**
Lorenzo Curti
 Lorenzo Curti (1), Elena Montagni (2,3), Manuel Ambrosone (2), Alessandra Franceschini (2), Alessia Costa (4), Michela Amendola (2), Antonino Iurato La Rocca (1), Ludovico Silvestri (2), Anna Letizia Allegra Mascaro (2,3), Guido Mannaioni (1), Alessio Masi (1)
1: Department of Neurosciences, Psychology, Drug Research and Child Health, University of Florence, Florence, Italy; 2: European Laboratory for Non-Linear Spectroscopy, Sesto Fiorentino, Italy; 3: National Research Council, Neuroscience Institute, Pisa, Italy; 4: Department of Health Sciences, University of Florence, Florence, Italy

- 013/1 Effects of early-life butyrate supplementation in an ASD mouse model**
Irene Coppola
 Irene Coppola (1), Mattia De Magistris (2), Annacandida Villani (3), Maria Antonietta Ajmone-Cat (1), Valerio Pазienza (3), Roberta De Simone (1), Laura Ricceri (2), Gemma Calamandrei (2), Anna Maria Tartaglione (2)
 1: National Centre for Drug Research and Evaluation, Istituto Superiore di Sanità, Rome, Italy; 2: Centre for Behavioral Sciences and Mental Health, Istituto Superiore di Sanità, Rome, Italy; 3: Gastroenterology Unit IRCCS "Casa Sollievo della Sofferenza", Hospital San Giovanni Rotondo, Foggia, Italy
- 014/1 Autophagy and microtubules dynamics in Ubiquitin ligase E3a (UBE3A)-deficient neurons**
Ilaria Tonazzini
 Ilaria Tonazzini (1), Laura Marchetti (2), Allegra Coppini (2), Ype Elgersma (3), Marco Cecchini (1)
 1: Istituto Nanoscienze - Consiglio Nazionale delle Ricerche (CNR) @ NEST, Pisa (IT); 2: Dip. di Farmacia, Università di Pisa (IT); 3: Clinical Genetics, Erasmus Medical Center, Rotterdam (NL)
- 015/1 Neuronal extracellular vesicles as a novel tool to study and monitor Angelman Syndrome neurodevelopmental disorder**
Chiara De Cesari
 Chiara De Cesari (1), Asia Botto (2), Laura Baroncelli (3), Liam McDonnell (2), Ilaria Tonazzini (1)
 1: Nanoscience Institute - National Research Council (CNR), Pisa, Italy; 2: Fondazione Pisana per la Scienza ONLUS, San Giuliano Terme, Pisa, Italy; 3: Neuroscience Institute - National Research Council (CNR), Pisa, Italy
- 016/1 Discriminative and Emotional components of Affective Touch in Autism Spectrum Disorder population**
Francesca Capiotto
 Francesca Capiotto, Giulia Romano Cappi, Alessandro Mazza, Cariola Monia, Ilaria Mirlisenna, Olga Dal Monte
 University of Turin, Italy
- 018/1 Gut-brain axis: effects of probiotics on behavior and function**
Federica Serafini
 Federica Serafini (1), Tommaso Seri (1), Giusi Sabatini (2), Tamara Diamanti (1), Benedetta Citro (1), Maria Emanuela Greco (1), Laura Ricceri (3), Aldo Corsetti (2), Arianna Rinaldi (1), Natalia Battista (2), Antonella De Jaco (1)
 1: Università degli Studi di Roma "La Sapienza", Italy; 2: Università degli Studi di Teramo; 3: Istituto Superiore di Sanità, Roma
- 019/1 Dopaminergic alteration triggers autistic-behaviours in lysosomal storage disorders**
Maria De Risi
 Maria De Risi (1,2), Lorenzo Cusimano (1), Xabier Bujanda Cundin (1), Mariateresa Pizzo (1), Simona Fecarotta (3), Giancarlo Parenti (1,3), Elvira De Leonibus (1,2)
 1: Telethon Institute of Genetics and Medicine, Telethon Foundation, Pozzuoli, Italy; 2: Institute of Biochemistry and Cell Biology (IBBC), National Research Council, Rome, Italy; 3: Department of Pediatrics "Federico II" University Hospital, Naples, Italy
- 020/1 CDKL5 regulates GABAergic innervation of oligodendrocyte progenitor cells in the cerebral cortex: myelination and behavioural consequences**
Sunaina Devi
 Sunaina Devi, Riccardo Pizzo, Anna Mellano, Debora Comai, Antonia Gurgone, Martina Lorenzati, Annalisa Buffo, Chiara Salio, Maurizio Giustetto
 University of Turin, Italy
- 021/1 Social behavior characterization during development and effects of oxytocin treatment in R451C Neuroligin3, a mouse model of autism**
Tamara Diamanti
 Tamara Diamanti (1), Camilla Perfetto (1), Federica Serafini (1), Maria Egle De Stefano (1,2), Valentina Ferretti (1,2), Antonella De Jaco (1,2)
 1: Dept. Biology and Biotechnology "C. Darwin", Sapienza University of Rome, Italy; 2: Center for Research in Neurobiology "Daniel Bovet", Sapienza University of Rome, Italy

- 022/1 Altered glial activation in a rat model of Fragile X Syndrome**
Alessandro Feo
 Alessandro Feo (1), Alessandro Rava (1), Emilia Carbone (1), Antonia Manduca (2), Barbara Peruzzi (3), Viviana Trezza (1)
1: Department of Science, Section of Biomedical Sciences and Technologies, University "Roma Tre", Rome, Italy; 2: Department of Physiology and Pharmacology "V. Erspamer", Sapienza University of Rome, Rome, Italy; 3: Bone Physiopathology Research Unit, Bambino Gesù Children's Hospital, IRCCS, 00165 Rome, Italy.
- 023/1 Increased expression of metabotropic glutamate receptors in infant VPA-exposed rats**
Simona D'Antoni
 Simona D'Antoni (1), Sara Schiavi (2), Valeria Buzzelli (2), Samuele Giuffrida (1), Viviana Trezza (2), Maria Vincenza Catania (1)
1: Institute for Biomedical Research and Innovation, National Research Council (IRIB-CNR), via Paolo Gaifami 18, 95126, Catania, Italy; 2: Department of Science, Section of Biomedical Sciences and Technologies, University "Roma Tre", Viale G. Marconi 44600146, Rome, Italy
- 024/1 Modulation of the affect facial emotion recognition and theory of mind using a device combining prism adaptation and serious games in Children with Autism Spectrum Disorder**
Angela Catania
 Angela Catania (1,3,4,5), Federica Calistro (5), Giovanna Montalto (5), Sandra Giordano (5), Massimiliano Oliveri (1,3,5), Patrizia Turriziani (2,3,5)
1: Department of Biomedicine, Neurosciences and Advanced Diagnostics, University of Palermo, Italy; 2: Department of Psychology, Educational Sciences and Human Movement, University of Palermo, Italy; 3: Laboratory of Neuropsychology, University of Palermo, Italy; 4: International School of Advanced Studies, University of Camerino, Italy; 5: NeuroTeam Life and Science, Palermo, Italy
- 025/1 Blunted mGlu5-mediated polyphosphoinositide hydrolysis in two mouse models of autism**
Luisa Di Menna
 Luisa Di Menna (1), Rosamaria Orlando (1,2), Giovanna D'Errico (1), Roxana Paula Ginerete (1), Agata Machaczka (3), Carmela Maria Bonaccorso (4), Andrea Arena (2,4), Michela Spatuzza (4,5), Roberta Celli (1), Mariak Alborghetti (6), Eleonora Ciocca (2), Anna Rita Zuenen (2), Maria Rosaria Scioli (1), Valeria Bruno (1,2), Giuseppe Battaglia (1,2), Ferdinando Nicoletti (1,2), Maria Vincenza Catania (5)
1: IRCCS Neuromed, Pozzilli, Italy; 2: Department of Physiology and Pharmacology, Sapienza University, Rome, Italy; 3: Department of Neurobiology, Maj Institute of Pharmacology, Polish Academy of Science, Krakow, Poland; 4: IRCCS Oasi Research Institute, Troina, Italy; 5: Institute for Biomedical Research and Innovation, The National Research Council (IRIB-CNR), Catania; 6: Department of Neuroscience, Mental Health, and Sensory Organs, Sapienza University, Italy
- 026/1 Exploring the relationship between sensory habituation, autistic traits and attentional control**
Alessia Santostefano
 Alessia Santostefano (1,2,4), Vincenza Tarantino (1,4), Ilaria Tasca (1), Noemi Passarello (3), Laura Mandolesi (3), Patrizia Turriziani (1,2,4)
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Cognition and behavior

- 027/1 Improved social and object discrimination memory in Transient Receptor Potential Ankyrin 1 (TRPA1) channel-deleted mice**
Gustavo Provensi
 Maria Vittoria Becagli (1), Alessia Costa (2), Daniel Souza Monteiro De Araujo (1), Romina Nassini (1), Ludovico Silvestri (3), Francesco de Logu (1), Gustavo Provensi (2)
1: Department of Health Sciences, University of Florence, Italy; 2: Department of Neurosciences, Psychology, Drug Research and Child Health (NEUROFARBA), University of Florence, Italy; 3: Department of Physics and Astronomy, University of Florence, Italy

- 030/1 Brain and behavior as targets of perinatal exposure to bisphenols**
Brigitta Bonaldo
 Brigitta Bonaldo (1,2), Antonino Casile (1,2,3), Martina Bettarelli (2), Marialaura Teresa Ostuni (2), Sofia Nasini (4), Marilena Marraudino (1,2), GianCarlo Panzica (1,2), Stefano Gotti (1,2)
1: Department of Neuroscience "Rita Levi-Montalcini", University of Turin, Via Cherasco 15, 10126 - Turin, Italy; 2: Neuroscience Institute Cavalieri Ottolenghi (NICO), Regione Gonzole 10, 10043 - Orbassano, Turin, Italy; 3: Department of Chemical and Pharmaceutical Sciences and Biotechnology, University of Camerino, Cavour 19/f 62032 square Camerino (MC), Italy; 4: Department of Pharmaceutical and Pharmacological Sciences, University of Padua, Largo Meneghetti 2, 35131 Padua (PD) - Italy
- 031/1 Medial prefrontal cortex stimulation abolishes implicit reactions to threats and prevents the return of fear**
Benedetto Sacchetti
 Eugenio Manassero, Giulia Concina, Maria Clarissa Chantal Carai, Pietro Sarasso, Adriana Salatino, Raffaella Ricci, Benedetto Sacchetti
University of Turin, Italy
- 032/1 Dystrophic mdx mice are hypersensitive to acute and sub-chronic restraint stress: a behavioural and biochemical study**
Elisa Pizzichini
 Elisa Pizzichini, Valentina Ferretti, Antonella De Jaco, Maria Egle De Stefano
Sapienza University of Rome, Italy
- 033/1 Effect of sustained cognitive control on error rate and event-related potentials in a go/no-go task**
Fabio Taddeini
 Fabio Taddeini (1), Giulia Avvenuti (3), Alberto Arturo Vergani (1), Emiliano Ricciardi (3), Silvestro Micera (1,2), Giulio Bernardi (3), Alberto Mazzoni (1)
1: The BioRobotics Institute and Department of Excellence in Robotics and AI, Sant'Anna School of Advanced Studies, Italy; 2: Bertarelli Foundation Chair in Translational Neuroengineering, EPFL, Switzerland; 3: IMT School for Advanced Studies Lucca, Italy
- 034/1 To Cooperate or to compete? Benefits and costs of performing in a social setting.**
Lucia De Francesco
 Lucia De Francesco, Alessandro Mazza, Matilde Sorrenti, Virginia Murino, Edoardo Battezzaz, Francesco Strada, Andrea Bottino, Olga Dal Monte
Università degli studi di Torino, Italy
- 035/1 The Impact of Cognitive Effort on Prosocial Choices: an EEG study**
Alessandro Valvo
 Alessandro Valvo, Alessandro Mazza, Ilaria Mirlisenna, Marta Campagnola, Olga Dal Monte
University of Turin, Italy
- 036/1 How the interpersonal distance varies throughout the lifespan**
Ilaria Mirlisenna
 Ilaria Mirlisenna, Greta Bonino, Francesca Capiotto, Monia Cariola, Giulia Romano Cappi, Alessandro Valvo, Olga Dal Monte
University of Turin, Italy
- 037/1 The body knows what the mind does not: The physiology of Self-Deception**
Giulia Romano Cappi
 Giulia Romano Cappi, Ilaria Mirlisenna, Alessandro Mazza, Olga Dal Monte
Turin University, Italy
- 038/1 Audiovisual crossmodal congruency may enhance visuo-spatial long-term memory**
Francesca Piovesan
 Francesca Piovesan, Irene Ronga, Pietro Sarasso, Maria-Chiara Villa, Irene Lozzi, Katiuscia Sacco
Brain Plasticity and behavior changes (BIP) - research group. Department of Psychology, University of Turin

- 039/1 Evaluation of in vivo effects of non-psychotropic phytocannabinoid mixtures**
Marinella Carone
 Marinella Carone, Roza Anastasia Latsi, Marika Premoli, Giuseppina Maccarinelli, Maurizio Memo, Sara Anna Bonini
Department of Molecular and Translational Medicine, University of Brescia, Brescia, Italy
- 040/1 Facial motor control in monkeys and rodents : an anatomical study**
Anna Bertucci
 Anna Bertucci (1,2), Dalila Biancheri (3), Elena Borra (3), Marco Lanzilotto (2)
 1: Department of Life Sciences and Systems Biology, University of Turin, Italy; 2: Department of Psychology, University of Turin; 3: Department of Medicine and Surgery, University of Parma, Italy
- 041/1 Differences and similarities in the neural patterns of activity related to correct and incorrect trials in the macaques lateral prefrontal cortex: an electrophysiological study**
Claudio Basile
 Claudio Basile, Virginia Beretta, Alfonso Gravante, Leonardo Fogassi, Stefano Rozzi
Department of Medicine and Surgery, University of Parma, via Volturno 39, 43125 Parma, Italy.
- 042/1 Neurons responsive to yawn in the monkey ventral premotor cortex**
Elena Ferretti
 Elena Ferretti (1), Francesca Lanzarini (2), Monica Maranesi (1), Luca Bonini (1)
 1: University of Parma, Italy; 2: Ernst Strüngmann Institute (ESI) for Neuroscience in Cooperation with Max Planck Society, Frankfurt am Main, Germany
- 043/1 Targeting Vasopressin signaling to prevent behavioral alterations in PTSD mice**
Alessandra Monaco
 Alessandra Monaco, Livia Cosentino, Chiara Urbinati, Alessia De Matteis, Bianca De Filippis
Istituto Superiore di Sanità, Italy
- 044/1 Behavioural effects of an intranasal AMPK-targeted treatment for Rett syndrome**
Alessia De Matteis
 Alessia De Matteis, Chiara Urbinati, Livia Cosentino, Alessandra Monaco, Bianca De Filippis
Istituto Superiore di Sanità, Viale Regina Elena 299, 00161 Roma, Italy
- 045/1 What the dynamic between hemispheres can teach us about attention - a TMS-EEG study**
Selene Schintu
 Selene Schintu (1,2,3), Amelia G. Stapleton (2), Sarah Shomstein (3), Eric M. Wassermann (2)
 1: CIMEC, University of Trento, Rovereto (TN), Italy; 2: National Institute of Neurological Disorders and Stroke, NIH, Bethesda (MD), USA; 3: Department of Psychology, George Washington University, Washington DC (DC), USA
- 046/1 Effects of Galvanic Vestibular Stimulation on Actions Recognition: a single-blind study**
Roberto Gammeri
 Roberto Gammeri (1), Maria-Chiara Villa (2), Giuliano Carlo Geminiani (2), Anna Berti (1), Raffaella Ricci (1)
 1: SAN Lab (Space, Attention ad Action), Department of Psychology, University of Turin, Torino, Italy; 2: BIP (Brain Plasticity and Behavior Changes) Research Group, Department of Psychology, University of Turin, Turin, Italy
- 047/1 Rhythmic discrimination of languages in infants with hearing loss**
Gaia Lucarini
 Gaia Lucarini (1), Caroline Nallet (1), Davide Brotto (1), Patrizia Trevisi (1), Alessandro Martini (1), Judit Gervain (1,2)
 1: Università degli Studi di Padova, Padova, Italy; 2: CNRS & Université Paris Cité, Paris, France
- 048/1 Beyond marbles buried: a comparative analysis of tests targeting restricted and repetitive behaviors in C57B6/J mouse strain**
Mattia De Magistris
 Irene Coppola (1), Mattia De Magistris (2), Gemma Calamandrei (2), Laura Ricceri (2), Anna Maria Tartaglione (2)
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049/1 **Gamma oscillations in mouse primary visual cortex as a biomarker of pathological conditions**

Nicolo Meneghetti

Nicolo Meneghetti (1,3), Eleonora Vannini (2,4), Laura Restani (2), Matteo Caleo (2,5), Alberto Mazzoni (1,3)
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050/1 **Network properties underlying remission mechanisms at early stages of psychosis (EP): bridging hierarchical levels with a whole-brain computational approach**

Ludovica Mana

Ludovica Mana (1), Manel Vila-Vidal (1,2), Ane López (1), Yasser Aleman (3), Philipp S. Baumann (3), Paul Klauser (3), Raoul Jenni (3), Kim Q. Do (3), Philippe Conus (3), Patric Hagmann (3), Gustavo Deco (1,4)
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051/1 **Neural circuitry in the brain of *Octopus vulgaris*: contributing to JZ Young legacy**

Federica Pizzulli

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Development and stem cells

052/1 **Brain organoids for the study of neural maturation in physiological and pathological conditions**

Francesca Ciarpella

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053/1 **Microcephaly-associated protein WDR62 shuttles from the Golgi apparatus to the spindle poles in human neural progenitors**

Claudia Dell'Amico

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- 054/1 Patients derived organoids show differences compared to mice model in DNA damage accumulations and mitotic defects leading microcephaly syndrome**
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- 055/1 In vitro neurotransmitters release to study developmental neurotoxicity (DNT) in hiPSCs-derived neurons**
Sarah Amato
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- 056/1 Leukodystrophy -affected patients harboring mutations in Pol III gene present a profound transcriptional dysregulation**
Clarissa Berardo
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- 057/1 Dissecting schizophrenia through patient iPSC-derived thalamic reticular nucleus neurons**
Marilyn Marlene Angulo Salavarría
 Marilyn Marlene Angulo Salavarría (1), Claudia Dell'Amico (1), Elena Rita Vecchi (2,7), Michela Giacich (1), Francesco Luciano Donati (2), Anna Castelnovo (3), Marta Re (4), Eleonora Maggioni (4,5), Armando D'Agostino (2,6), Luciano Conti (7), Marco Onorati (1)
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- 059/1 Oligodendrocyte-derived SEMA6A shapes GnRH neurovascular congruency and puberty onset**
Roberto Oleari
 Roberto Oleari (1), Antonella Lettieri (2), Marieke Verhagen (3), Eljo Y. van Battum (3), Marleen H. van den Munkhof (3), Carlotta Tacconi (4), Alyssa J.J. Paganoni (1), Roberta Azzarelli (5), Luca Palazzolo (1), Ivano Eberini (1), Sasha R. Howard (6,7), Alessandro Fantin (4), R. Jeroen Pasterkamp (3), Anna Cariboni (1)
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060/1 **Dysregulation of FLVCR1-dependent mitochondrial calcium handling in neural stem cells causes congenital hydrocephalus**

Francesca Bertino

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Sensory system

062/1 **Inferring brain network organization from connectomic reconstructions: a network analysis approach applied in d. melanogaster and d. rerio**

Matteo Bruzzone

Karan Manjunatha (1), Matteo Bruzzone (2,3,4), Giorgio Nicoletti (1), Samir Suweis (1,3), Marco Dal Maschio (2,3)

Development and stem cells

064/1 **High throughput in vivo compound screen for linking genes, the habenular circuit and mental disorders**

Matthias Carl

Anja Bühler, Judith Habicher, Samuele Sartori, Niccolò Militello, Matthias Carl
University of Trento, Italy

065/1 **Description of two groups of dopaminergic cells isolated from the mouse olfactory bulb**

Angela Pignatelli

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066/1 **Indeterminate growth and regeneration: dissecting their molecular fingerprint in octopus**

Giulia Bergamini

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Stazione Zoologica Anton Dohrn, Napoli, Italia

Epilepsy and hyperexcitability

067/1 **Functional study of a mutant $\alpha 2$ subunit of the neuronal nicotinic acetylcholine receptor linked to sleep-related generalized seizures with cognitive deficit**

Chiara Villa

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068/1 SCN2A A1659V loss-of-function variant causes early infantile onset encephalopathy

Lisastella Morinelli

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069/1 Low glycemic index diet restrains epileptogenesis in a gender specific fashion

Caterina Michetti

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070/1 Investigating activity-dependent processes during cortical neuronal assembly in development and disease

Sara Mancinelli

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071/1 Dissecting the role of HCN1 in Developmental and Epileptic Encephalopathy (DEE) by exploiting patient-specific models of cerebral cortex development

Giulia Demenego

Giulia Demenego (1,2), Sara Mancinelli (1), Elena Florio (1,2), Filippo Mirabella (1,2), Monica Tambalo (1), Gabriele Di Napoli (1), Carla Marini (3), Jacopo Di Francesco (4,5), Christel Depienne (6), Davide Pozzi (1), Simona Lodato (1,2)

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072/1 Changes in evoked and spontaneous brain activity following focal controlled brain lesions

Chiara Maria Cassani

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Innovative methods and technologies in neuroscience

073/1 Examination of the brain areas by importance scores using braingraphs

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- 074/1 From diamond multiarrays to nanodiamonds: new probes for neuroscience down to the nanoscale**
Giulia Tomagra
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- 075/1 CRISPR/Cas9-based approaches for Frataxin gene reactivation in Friedreich's ataxia**
Elena Melacini
 Elena Melacini (1,2), Sharon Muggeo (1), Mirko Luoni (1,2), Serena Giannelli (1), Margherita Rossi (1), Vania Broccoli (1,2)
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- 076/1 Effect of 3D synthetic microsccaffold nichoid on the morphology of cultured hippocampal neurons and astrocytes**
Clara Alice Musi
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- 077/1 Monkey ventral premotor cortex generates rhythmic activity during spontaneous walking**
Rossella Sini
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- 078/1 Generation and characterization of ap1s2 mutant lines in Danio rerio**
Elena Massardi
 Elena Massardi (1), Nicola Facchinello (2), Luca Mignani (1), Barbara Gnutti (1), Dario Finazzi (1), Eugenio Monti (1), Daniela Zizioli (1), Giuseppe Borsani (1)
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- 079/1 Comparison of anesthetics prior to microwave fixation for preservation of glycogen**
Maria Fernanda Veloz Castillo
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- 080/1 spaCe: assessing relative biological effectiveness of simulated deep space radiation in altering neural function and survival in C. elegans**
Giada Onorato
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081/1 Assessing the effects of transcutaneous vagus nerve stimulation on noradrenaline related cognitive function: the effects on alerting and its possible implication for Tourette syndrome

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082/1 Neuronal network characterization of cortico-hippocampal spontaneous activity during development

Edoardo Fraviga

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Migraine and pain

083/1 Importin $\alpha 3$ contribution to the pain transduction pathway

Livia Testa

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084/1 Mechanisms of initiation of cortical spreading depression in the mouse cerebral cortex

Marina Vitale

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Mitochondriopathies

085/1 Nr2f1 shapes mitochondria in the mouse brain unraveling new insights into the neurodevelopmental disorder BBSOAS

Silvia De Marchis

Sara Bonzano (1), Eleonora Dallorto (1), Ivan Molineris (2), Filippo Michelon (1), Isabella Crisci (1), Giovanna Gambarotta (3), Francesco Neri (2), Salvatore Oliviero (2), Ruth Beckervordersandforth (4), Dieter Chichung Lie (4), Paolo Peretto (1), Serena Bovetti (1), Michèle Studer (5), Silvia De Marchis (1)

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Neurobiology of psychiatric disorders

086/1 Electrophysiological correlates of reward anticipation in subjects with schizophrenia: an ERP microstate study

Pasquale Pezzella

Pasquale Pezzella (1), Andrea Perrottelli (1), Giulia Maria Giordano (1), Thomas Koenig (2), Edoardo Caporosso (1), Luigi Giuliani (1), Paola Bucci (1), Armida Mucci (1), Silvana Galderisi (1)

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087/1 Electrophysiological properties and excitatory/inhibitory balance of parvalbumin and somatostatin-positive interneurons are altered in the hippocampus of the Ts65Dn mouse model of down syndrome

Giulia Colombo

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- 088/1 Resting state mri functional connectivity and negative symptoms in subjects with schizophrenia**
Edoardo Caporusso
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- 089/1 Study of molecular mechanisms underlying Treatment-Resistant Depression using iPSCs-derived neurons**
Zaira Tomasoni
 Zaira Tomasoni (1), Federica Bono (1), Giulia Sbrini (1), Jessica Mingardi (2), Laura Musazzi (3), Veronica Mutti (4), Adele Guglielmi (1), Alessandra Minelli (2,4), Massimo Gennarelli (2,4), Cristina Missale (1), Alessandro Barbon (2), Chiara Fiorentini (1)
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- 090/1 Telomere length and mitochondrial DNA copy number as markers of accelerated aging in bipolar disorder and response to lithium treatment**
Anna Meloni
 Anna Meloni (1), Raffaella Ardu (2), Caterina Chillotti (2), Bernardo Carpinello (3,4), Donatella Congiu (1), Maria Del Zompo (1), Pasquale Paribello (3,4), Federica Pinna (3,4), Marco Pinna (3,4), Claudia Pisanu (1), Giovanni Severino (1), Mirko Manchia (3,4,5), Alessio Squassina (1,6)
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- 091/1 Dissecting UBE3A-dependent regulation of synapse development**
Martina Biagioni
 Martina Biagioni (1), Federica Baronchelli (3,4), Martina Di Nunzio (1), Alessandra Folci (3), Marco Erreni (2), Matteo Fossati (1,3)
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- 092/1 Fgf14 deletion confers resilience to basal and stress-induced depressive-like behaviour**
Francesca Montarolo
 Francesca Montarolo, Linda Masante, Anita Maria Rominto, Luna Berrino, Filippo Tempia, Eriola Hoxha
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- 093/1 Sumoylation of OPHN1 controls spine density and architecture by tuning actin dynamics**
Alessandra Folci
 Cristina Guglielmetti (1), Alessia Seccia (1), Marco Erreni (2), Marta Busnelli (1), Marie Pronot (3), Marta Prieto (3), Fabrizia Guarnieri (1,4), Francesca D'Autilia (2), Gwenola Poupon (3), Silvia Bassani (1), Maria Passafaro (1), Matteo Fossati (1,5), Davide Pozzi (6), Federico Forneris (7), Stéphane Martin (8), Michela Matteoli (1,6), Alessandra Folci (1,5)
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- 094/1 Cannabidiol prosocial effect in mice: crucial role of its cross-talk with the oxytocin pathway mediated by TRPV2**
Marika Premoli
 Marika Premoli, Marinella Carone, Giuseppina Maccarinelli, Maurizio Memo, Sara Anna Bonini
 University of Brescia, Italy

- 095/1 Unrevealing the role of the neuropeptide oxytocin in anorexia nervosa: a preclinical investigation**
Barbara Eramo
 Barbara Eramo (1), Adele Romano (1), Silvana Gaetani (1), Ida Nilsson (2)
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- 096/1 The biological role of "green-therapy": a study on depressed patients**
Gianna Pavarino
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- 097/1 Oxytocin's role in depression-like phenotype induced by attachment bond interference**
Alice Passeri
 Alice Passeri (1), Diana Municchi (1,2), Lucy Babicola (1,2), Camilla Mancini (3), Sebastian Luca D'Addario (1,2), Marta Tiberi (2), Matteo Di Segni (2,1), Luisa Lo Iacono (1,2), Diego Andolina (1,2), Carlo Cifani (3), Valerio Chiurciu (2), Rossella Ventura (1,4)
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- 098/1 Attachment bond alteration and intergenerational transmission of psychopathology vulnerability**
Lucy Babicola
 Lucy Babicola (1,2), Valeria Petroni (1), Matteo Di Segni (2), Francesca Romana D'Amato (3), Rossella Ventura (1,4)
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- 099/1 Elucidating the interplay between early-life adversities and genetic predisposition in the emergence of transdiagnostic psychiatric hallmarks**
Gabriele Chelini
 Gabriele Chelini, Tommaso Fortunato-Asquini, Benedetta Catena, Ginevra Matilde Dall'O', Enrica Cerilli, Luca Pangrazzi, Yuri Bozzi
University of Trento, Trento, Italy
- 100/1 Attachment bond interference and psychopathology: the positive role of earned-attachment**
Camilla Mancini
 Camilla Mancini (1), Lucy Babicola (2,3), Gilda Chilà (4), Alice Passeri (2), Diana Municchi (2,3), Elena Spoletti (4,5), Matteo Di Segni (3,2), Massimiliano Renzi (4), Carlo Cifani (1), Rossella Ventura (2,6)
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- 101/1 Post-traumatic stress disorder (PTSD) vulnerability and resilience: behavioral and transcriptomic characterization of two unique PTSD rat lines**
Giulia Federica Mancini
 Giulia Federica Mancini (1,2), Maria Morena (1,3), Benedetta Di Cesare (1,3), Fausto Masi (1), Rachele Tofani (1), Onno Meijer (2), Patrizia Campolongo (1,3)
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102/1 Oxidative stress underlies sex-dependent effects of prenatal stress in a mouse model

Marianna Samà

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Center for Behavioral Sciences and Mental Health, Istituto Superiore di Sanità, Roma, Italy

103/1 Serotonergic antidepressants are effective when administered in a supportive environment

Silvia Poggini

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104/1 The psychotherapeutic use of lucid dreaming: a critical review

Marina Baroni

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Neuroinflammation

105/1 Investigating microglial activation in the Activity-based anorexia (ABA) rats

Carlotta Siddi

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Neuroendocrinology and neuroimmunology

106/1 Genistein and predisposition to obesity in CD1 mice: from neural circuits to estrogen receptors

Ornella Vranaraj

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107/1 Postnatal phytoestrogen diet impacts on emotional behaviors and serotonergic system in male and female mice

Elena Ricci

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108/1 Maternal exposure to genistein in combination with low-protein diet during pregnancy influences maternal behavior and alters the stress axis in offspring

Mariateresa Bellantoni

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**Neuronal circuits, neurophysiology, and
optogenetic approaches**

110/1 Molecular changes underlying decay of sensory responses and enhanced seizure propensity in peritumoral neurons

Marta Scalera

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112/1 Guiding synaptic plasticity toward specific features of visual functions

Daniele Cangì

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113/1 Dissecting the role of the dorsal hippocampus in observational learning of social decisions

Filippo La Greca

Filippo La Greca, Giulia Coccia, Elisa Zianni, Davide Maggioni, Fabrizio Gardoni, Monica DiLuca, Diego Scheggia

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114/1 Neuronal signals for self and other's action in the monkey putamen

Matilde Reni

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115/1 Whole-brain functional network topology for representing imprinted odor cues

Alessandra Stella

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116/1 Memory-driven coding of objects in the monkey parieto-frontal grasping network

Anna Mitola

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1: University of Parma, Italy; 2: University of Turin, Italy

- 117/1 Shaping the spikes: oxytocinergic modulation of action potentials in the CA1 hippocampal region of mice**
Antonio Nicolas Castagno
 Antonio Nicolas Castagno (1), Paolo Spaiardi (1,2), Arianna Trucco (1), Claudia Maniezzi (3), Francesca Raffin (1), Maria Mancini (4), Alessandro Nicois (5), Jessica Cazzola (1), Paola del Papa (1), Matilda Pedrinazzi (1), Antonio Pisani (4,6), Francesca Talpo (1), Gerardo Rosario Biella (1,2)
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- 118/1 Large-scale investigation of cell assembly coordination and network motifs in the mouse brain**
Fabrizio Londei
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- 119/1 The Case of Octopus vulgaris: exploring neural hallmarks for consciousness**
Marianna De Luca
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Neuronal excitability

- 120/1 Neuronal hippocampal hyperexcitability and striatal synaptic dysfunctions in a mouse model of Lafora disease**
Alessandro Tozzi
 Alessandro Tozzi (1), Laura Bellingacci (1), Jacopo Canonichesi (1), Alessia Russo (1), Martina Geusa (1), Lorenzo Fedrizzi (1), Giulia Di Giorgio (1), Massimiliano Di Filippo (1), Miriam Sciaccaluga (1,2), Cinzia Costa (1)
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Neurotransmission and signal transduction

- 121/1 A study of chemical neuroanatomy on the neurotensinergic system in the human cerebellar cortex**
Paolo Flace
 Paolo Flace (1,2), Diana Galletta (3), Demetrio Milardi (4), Vincenzo Coviello (2), Giulio Fata (2), Rosanna Mallamaci (5), Andrea Marzullo (6), Antonella Bizzoca (7), Gianfranco Gennarini (7), Angelo Quartarone (8)
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- 122/1 Peculiar D2 dopamine receptor localization in pancreatic-cells**
Marco Carli
 Marco Carli (1), Edoardo Ferrero (1), Letizia Biso (1), Michela Novelli (1), Vincenzo De Tata (1,2), Marco Scarselli (1)
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- 124/1 Retinal ganglion cells encode the direction of motion outside their classical receptive field**
Serena Riccitelli
Serena Riccitelli, Hadar Yaakov, Alina S. Heukamp, Lea Ankri, Michal Rivlin-Etzion
Weizmann Institut of Science, Israel
- 125/1 Cross-talk between intrinsic and extrinsic factors in importin $\alpha 3$ mutant mice**
Giada Musso
Giada Musso (1), Sofia Dotta (1), Amisha Parmar (1), Livia Testa (1), Franziska Rother (2,3), Michael Bader (2,3,4), Letizia Marvaldi (1)
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- 126/1 Dissecting the role of the mouse olfactory dopaminergic cells in sexual odor processing**
Ilaria Ghia
Ilaria Ghia, Maddalena Pieroni, Stefano Zucca, Nicole Mancin, Paolo Marcello Peretto, Silvia De Marchis, Serena Bovetti
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- 127/1 Encoding brain states from intracortical recordings in freely behaving macaques**
Mattia Delgrosso
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1: University of Parma, Italy; 2: University of Turin, Italy
- 128/1 The role of importin $\alpha 3$ in sensory neurons upon in vitro injury**
Amisha Parmar
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- 129/1 A comparison of young and aged neuronal growth in importin $\alpha 3$ deficient mice**
Sofia Dotta
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- 131/1 Dual pathways in visual processing: insights from machine learning approach**
Matteo Diano
Matteo Diano (1), Petra Vetter (2), Marco Tamietto (1,3), Patrik Vuilleumier (4)
1: University of Turin, Italy; 2: University of Fribourg, Switzerland; 3: Tilburg University, the Netherlands; 4: University of Geneva, Campus Biotech, Geneva, Switzerland
- 132/1 Adjusting to a mirrored world: a study on visual adaptation**
Cristina Solinas
Cristina Solinas (1), Matteo Diano (2), Alessio Borriero (2), Marco Lanzilotto (2), Marco Tamietto (2,3)
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- 133/1 A comprehensive evaluation of the polygenic architecture of hearing problems in adults**
Flavio De Angelis
Flavio De Angelis (1,2), Giovanni Cirillo (2), Ciro De Luca (2), Assunta Virtuoso (2), Michele Papa (2), Renato Polimanti (1)
1: Yale University; 2: University of Campania "L. Vanvitelli"

Sociality and emotions

- 134/1 Union is strength: a novel paradigm to study social facilitation in mice**
Giulia Palla
Giulia Palla (1,2), Nadia Giordano (1,2), Lorenzo Fruzzetti (3,4), Raffaele Mazziotti (2), Tommaso Pizzorusso (1,2), Luca Bonini (5), Matteo Caleo (6), Claudia Alia (2)
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- 135/1 Overgeneralization of implicit defensive reactions in obesity**
Eugenio Manassero
Federica Scarpina (1,2), Eugenio Manassero (1), Sofia Tagini (1,2), Giulia Concina (1), Massimo Scacchi (2), Alessandro Mauro (1,2), Benedetto Sacchetti (1)
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- 136/1 Hugging synchronizes the rhythm of two hearts**
Monia Cariola
Monia Cariola, Ilaria Mirlisenna, Alessandro Mazza, Olga Dal Monte
Department of Psychology, University of Turin, Torino, Italy
- 137/1 Spatial frequency sensitivities for emotional body stimuli**
Maria-Chiara Villa
Maria-Chiara Villa (1), Alessio Borriero (1), Matteo Diano (1), Beatrice de Gelder (2), Marco Tamietto (1,3)
1: University of Turin, Italy; 2: Maastricht University; 3: Tilburg University
- 138/1 Modulation of Cofilin 1 phosphorylation affects structural plasticity in the adult mouse visual cortex**
Francesco Mattia Rossi
Agustina Dapuetto (1), Bruno Pannunzio (2), Francesco Mattia Rossi (3)
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- 139/1 Impaired cerebellar development/function in a mouse model of Niemann-Pick C1**
Greta Massa
Greta Massa (1,2), Serena Camuso (1,2), Jessica Tiberi (1,2), Roberta Stefanelli (1), Piergiorgio La Rosa (1), Maria Teresa Fiorenza (1), Sonia Canterini (1)
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- 140/1 Investigating the molecular diversity of COPII-dependent transport in cortical neurons**
Federica Baronchelli
Federica Baronchelli (1,2), Martina Biagioni (3), Giuseppe Martano (1,3), Sara Francesca Colombo (1), Matteo Fossati (1,3)
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141/1 **Brain histone beta-hydroxybutyrylation couples metabolism with gene expression**

Sara Cornuti

Sara Cornuti (1), Siwei Chen (2), Leonardo Lupori (1), Francesco Finamore (3), Fabrizia Carli (3), Muntaha Samad (2), Simona Fenizia (3), Matteo Caldarelli (4), Francesca Damiani (1), Francesco Raimondi (1), Raffaele Mazziotti (5,6), Christophe Magnan (2), Silvia Rocchiccioli (3), Amalia Gastaldelli (3), Pierre Baldi (2), Paola Tognini (1,4)

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142/1 **Investigating the effects of subtoxic dosage of glyphosate on primary neuronal and astrocytic cultures**

Debora Comai

Debora Comai (1), Giuseppe Chiantia (1), Antonia Gurgone (1), Vita Cardinale (1), Andrea Marcantoni (2), Luca Munaron (3), Maurizio Zibetti (1,4), Maurizio Giustetto (1)

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Aging, neurodegeneration and Alzheimer's disease

001/2 rTMS effects on neuroplasticity in mild cognitive impairment (MCI)**Minoo Sharbafshaaer**

Minoo sharbafshaaer, Sabrina Esposito, Fabrizio Canale, Giulia D'Alvano, Francesca Aammora, Danilo Atripaldi, Dario Ricciardi, Gioacchino Tedeschi, Francesca Trojsi
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002/2 Dipyridamole rescued cognitive deficits in a mouse model of Niemann Pick type C1 disease (NPC1)**Antonella Ferrante**

Lucia Gaddini (1), Andrea Matteucci (1), Valentina Chiodi (1), Zaira Boussadia (1), Nazzareno Di Carlo (1), Manuela Marra (2), Carla Raggi (3), Rita Di Benedetto (4), Federica Fratini (2), Loredana Le Pera (2), Patrizia Popoli (1), Antonella Ferrante (1)

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003/2 Anti-GluA3 autoantibodies define a new sub-population of Frontotemporal dementia patients with distinct neuropathological features**Maria Italia**

Maria Italia (1), Michela Salvadè (1), Filippo La Greca (1), Elisa Zianni (1), Alessio Spinola (1), Elena Ferrari (1), Silvana Archetti (2), Antonella Alberici (3), Alberto Benussi (3), Alessandro Padovani (3), Monica DiLuca (1), Diego Scheggia (1), Barbara Borroni (3), Fabrizio Gardoni (1)

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004/2 An alternative Ellagic acid delivery in neurodegenerative ex-vivo model**Nunzia Maisto**

Nunzia Maisto (1,2), Dalila Mango (2), Gaetano Barbato (3), Carlotta Marianecchi (1), Maria Carafa (1), Federica Rinaldi (1), Robert Nisticò (2,3)

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005/2 APP and Bace1: effect of cholesterol enrichment on processing and plasma membrane mobility**Martino Calamai**

Claudia Capitini (1,2), Laura Maggi (3), Martino Calamai (1,2)

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006/2 Hepcidin/Ferroportin1 axis activation and astrocytic-neuronal crosstalk in brain during aging**Mariarosa Mezzanotte**

Mariarosa Mezzanotte (1), Giorgia Ammirata (2), Marina Boido (1), Antonella Roetto (3), Serena Stanga (1)
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- 007/2 Inhibition of fatty acid amide hydrolase reverted the amyloid-beta-induced microglia polarization by restoring autophagy activity**
Federica Armeli
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 1: Sapienza Università di Roma, Italy; 2: IRCCS - S. Lucia Foundation, Rome, Italy
- 008/2 Terpenes and Alzheimer's disease: a preliminary in vitro study**
Sveva Dallere
 Sveva Dallere (1,2), Elena Signorino (1), Gianna Pavarino (1), Clelia Ferrero (1), Marina Boido (1), Alessandro Vercelli (1)
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- 009/2 Phenotype-specific gene expression patterns in unmutated sporadic ALS patients**
Francesca Dragoni
 Francesca Dragoni (1,2), Rosalinda Di Gerlando (1,2), Maria Garofalo (2), Luca Diamanti (2), Bartolo Rizzo (1), Matteo Bordini (2), Eveljn Scarian (2), Orietta Pansarasa (2), Stella Gagliardi (2)
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- 010/2 Deregulated microRNAs in Alzheimer's and frontotemporal dementia patients' extracellular vesicles**
Rosalinda Di Gerlando
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- 011/2 Identification of Sex-specific autophagy enhancers for dementia**
Brunella Mongiardi
 Brunella Mongiardi (1,2,3), Vittorio Loffredo (1,2,4), Mariagrazia Monaco (2), Cristina Somma (2,3), Greta Fabiani (1), Maria Sanzari (1), Giulia Torromino (1,2), Maria De Risi (1,2), Elvira De Leonibus (1,2)
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- 012/2 Morphological and mitochondrial changes in murine choroid plexus epithelial cells during healthy aging**
Valentina Scarpetta
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- 013/2 Neurocognitive decline during aging is associated with functional alterations in the ventral tegmental area and in the hippocampal plasticity**
Claudia Sagheddu
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- 014/2 Insight into the biological properties of trodusquemine and its use as nerve marker for light-sheet and expansion microscopy**
Claudia Capitini
 Claudia Capitini (1,2), Luca Pesce (2), Giulia Fani (3), Michael Zasloff (4,5), Fabrizio Chiti (3), Francesco Saverio Pavone (1,2,6), Martino Calamai (1,2)
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- 015/2 Midbrain lesion triggers hippocampal inflammation by a simultaneous Dopamine-Serotonin depletion**
Emma Cauzzi
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1: University of Rome "Tor Vergata", Italy; 2: IRCCS Fondazione Santa Lucia, Rome; 3: University Campus Bio-Medico of Rome, Italy; 4: Università Cattolica del Sacro Cuore, Rome, Italy
- 016/2 Novel approach for pre-diagnosis and follow-up of patients affected by Gaucher disease based on specific flow cytometry and fluorescent labeling**
Costanza Ceni
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- 017/2 JNK activation correlates with cognitive impairment and alteration of the post-synaptic element in the 5xFAD AD mouse model**
Arianna Giani
 Arianna Giani (1,2), Erica Cecilia Priori (1,2), Clara Alice Musi (1,2), Luca Colnaghi (3,4), Ivana Milic (5), Andrew Devitt (5), Tiziana Borsello (1,2), Mariaelena Repici (5)
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- 019/2 The cyclase-associated protein 2 controls cofilin-actin rods formation in Alzheimer's disease**
Silvia Cecilia Pelucchi
 Ramona Stringhi (1), Laura D'andrea (1), Lina Vandermeulen (1), Miriam Ascagni (2), Monica Di Luca (1), Silvia Cecilia Pelucchi (1), Elena Marcello (1)
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- 020/2 Transcriptomic profile across different brain areas in Alzheimer's disease**
Riccardo Rocco Ferrari
 Riccardo Rocco Ferrari (2,3), Valentina Fantini (2,7), Maria Garofalo (4), Francesca Dragoni (4,8), Rosalinda Di Gerlando (4,8), Annalisa Davin (2), Xhulja Profka (1), Valentina Medici (1,6), Antonio Guaita (1,2), Stella Gagliardi (4), Tino Emanuele Poloni (1,5)
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- 023/2 Investigating the molecular and cellular mechanisms explaining the connection between metabolic changes and the deterioration of cognitive function**
Maria Luisa Malosio
 Silvia Penati (1,2), Chiara Adriana Elia (2), Valentina Murtaj (3), Marta Medaglia (2,4), Erica Tagliatti (2), Cecilia Gotti (5), Irene Corradini (1,2), Rosa Maria Moresco (3,6,7), Michela Matteoli (1,2,8), Maria Luisa Malosio (1,2)
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024/2 A cell permeable ADAM10 endocytosis inhibitor promotes neuronal differentiation of adult hippocampal neural progenitors from a mouse model of Alzheimer's disease.

Valentina Bonetto

Valentina Bonetto (1), Valeria Bortolotto (1), Emanuele Brai (1), Giulia Boni (1), De Cicco Greta (1), Gibin Borzoni Giada (1), Pagano Corinna (1), Manfredi Marcello (2), Canonico Pier Luigi (1), Stringhi Ramona (3), D'Urso Annarita (3), La Greca Filippo (3), Scheggia Diego (3), Di Luca Monica (3), Marcello Elena (3), Grilli Mariagrazia (1)

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025/2 Gamma-oryzanol: a new drug repositioning as a neuroprotective compound

Giulia Abate

Giulia Abate (1,2), Mariachiara Pucci (1), Emanuela Tirelli (1), Sara Bonini (1,2), Andrea Mastinu (1,2), Giuseppina Maccarinelli (1), Daniela Zizioli (1), Alex Pezzotta (3), Mariagrazia Grilli (4), Maurizio Memo (1,2), Daniela Uberti (1,2)

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Applications and development of neuroimaging

026/2 Volumetric changes of subcortical structures in Parkinson's disease.

Carlo Tamba

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027/2 Radiomic Analysis to Predict Language Deficit in Glioma Patients, Studying Neuroplasticity Mechanisms of White Matter Tracts

Alberto Morello

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Artificial intelligence in neuroscience

028/2 Dissecting the role of computer-based approaches in the identification of potential biomarkers and treatment for neurodegenerative diseases

Letizia Messa

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- 029/2 Neural cortical organoids from self-assembling human iPSC as a model to investigate neurotoxicity in brain ischemia**
Daide Comolli
Massimiliano De Paola, Davide Comolli, Joe Kelk, Ilaria Lisi, Milica Cerovic, Stefano Fumagalli, Gianluigi Forloni, Elisa Zanier
Istituto di Ricerche Farmacologiche Mario Negri IRCCS, Italy
- 030/2 Montelukast, a safe anti-asthmatic drug, protects against stroke by improving anti-oxidant defence of oligodendrocyte precursor cells**
Majeda Muluhie
Majeda Muluhie (1), Juliana Helena Castro E Silva (1), Benedetta Mercuriali (1), Laura Castiglioni (1), Paolo Gelosa (1), José Maria Delgado-Garcia (2), Agnès Gruart (2), Davide Lecca (1), Mauro Cimino (3), Joanna Rzemieniec (1), Maria Pia Abbracchio (1), Luigi Sironi (1)
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- 031/2 Impact of perinatal stroke on motor and cognitive functions**
Emanuela Beretta
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- 032/2 Investigate the relationship between pirnas and Incrnas in in-vivo and in-vitro stroke model**
Rohan Mahesh Patil
Rohan Mahesh Patil
University of Naples Federico II, Italy
- 033/2 MSC-derived-exosomes promote functional recovery in a preclinical model of stroke**
Chiara D'Amelio
Chiara D'Amelio (1), Saviana Antonella Barbati (1), Chiara Feroletto (1), Federica Milella (1), Ida Nifo Sarrapochiello (1), Lucia Leone (1,2), Salvatore Fusco (1,2), Maria Vittoria Podda (1,2), Claudio Grassi (1,2)
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- 034/2 In vivo characterization of putative neuronal biomarkers for recovery in a mouse model of adult stroke**
Livia Vignozzi
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- 035/2 Effects of MRS3997, a dual adenosine A2A/A2B receptors agonist, in cerebral ischemia**
Ilaria Dettori
Ilaria Dettori (1), Irene Bulli (1), Elisabetta Coppi (1), Federica Cherchi (1), Martina Venturini (1), Lucia Frulloni (1), Clara Santalmasi (1), Kenneth A. Jacobson (2), Hobin Lee (2), Anna Maria Pugliese (1), Felicità Pedata (1)
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- 36/2 Computational whole-brain model of progression to dementia accounts for event-related potentials non-linear dynamics during attention task**
Lorenzo Gaetano Amato
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Development and stem cells

- 037/2 A pilot in vitro model of Adult Neural Stem cells to study energy metabolism contribution in Alzheimer disease**
Simona Magi
Giorgia Cerqueni (1), Silvia Piccirillo (1), Valentina Terenzi (1), Alessandra Preziuso (1), Tiziano Serfilippi (1), Salvatore Amoroso (1), Vincenzo Lariccia (1), Monia Orciani (2), Simona Magi (1)
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- 038/2 Regenerative approaches in spinal cord injuries by organotypic and cortico-spinal assembloid models**
Francesca Merighi
Francesca Merighi, Sara De Vincentiis, Alessio Zanelli, Luca D'Adamo, Angela Toffano, Claudia Dell'Amico, Vittoria Raffa, Marco Onorati
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- 039/2 Cohesin and PARP inhibitors: finding new treatments for pediatric medulloblastoma**
Antonella Lettieri
Antonella Lettieri (1), Simona Totaro (2), Silvia Castiglioni (1), Silvia Ancona (1), Paolo Grazioli (1), Elisabetta Di Fede (1), Grazia Fazio (3), Stefano Rebellato (3), Cristina Gervasini (1), Thomas Vaccari (2), Valentina Massa (1)
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- 040/2 Striatal astrocytes generate a novel type of axonless neuron that transiently integrates into damaged circuits**
Giulia Nato
Giulia Nato (1), Marco Fogli (1,2), Nicolas Marichal (3), Valentina Proserpio (1,4), Ilaria Ghia (1,2), Valentina Cerrato (1,5), Salvatore Oliviero (1,4), Paolo Peretto (1,2), Benedikt Berninger (3), Annalisa Buffo (1,5), Federico Luzzati (1,2)
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- 041/2 Epigenetic features in hESC-derived neuronal cells carrying the Huntington's Disease gene**
Michela Villa
Michela Villa (1,2), Paola Conforti (1,2), Maria Rosaria Nucera (1,2), Silvia Brocchetti (1,2,5), Giulia Birolini (1,2), Laura Antonelli (4), Francesco Gregoretti (4), Gennaro Oliva (4), Chiara Lanzuolo (2,3), Elena Cattaneo (1,2)
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042/2 Recovering STIMulation of astrocyte Ca²⁺ signal to shed light on Alzheimer's Disease

Annamaria Lia

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043/2 Bay-41 acts on sGC in microglia to reduce plaque load in Alzheimer's disease mice independently of Clec7A

Giovanni Cosco

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044/2 Metabolic cross-talk between astrocytes and neurons: implications for Alzheimer's disease

Alessandra Prezioso

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045/2 N-acetyl cysteine rescues cortical glial cell populations and results in functional improvements in a mouse model of primary autosomal recessive microcephaly 17 (MCPH17)

Maryam Khastkhodaei Ardakani

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046/2 Astrocytes diversity across mammals: a comparative analysis on distribution and single cell morphology

Caterina Ciani

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047/2 Generation and characterization of a GALC knock-out human oligodendrocyte cell line (MO3.13) using CRISPR/Cas9 methodology for studying Krabbe disease

Miriam De Sarlo

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048/2 Citron-kinase loss leads to hypomyelination via cell autonomous and non-cell autonomous mechanisms

Martino Bonato

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- 049/2 Role of mitochondria-ER interaction in astrocyte cellular dysfunction associated with neurodegeneration**
Giulia Dematteis
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- 050/2 Modelling Alzheimer's disease-related astrocytic dysfunction in immortalized hippocampal astrocytes from 3xTg-AD mice: from loss of proteostasis to homeostatic failure**
Giulia Dematteis
 Giulia Dematteis (1), Laura Tapella (1), Chunmei Gong (2), Mariagrazia Grilli (1), Armando A Genazzani (1), Marcello Manfredi (3), Laura Bonfili (2), Anna Maria Eleuteri (2), Dmitry Lim (1)
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- 051/2 Insulin sensitivity in microglial cells: the impact of neuroinflammation**
Enrica Marzani
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- 052/2 Nerve growth factor influences microglial activity via TrkA receptors**
Giulia Borgonovo
 Giulia Borgonovo (1), Alexia Tiberi (1,2), Giovanna Testa (1), Paola Pacifico (1,2), Ajesh Jacob (1), Mariachiara Di Caprio (1), Mariantonietta Calvello (1), Simona Capsoni (1,3), Antonino Cattaneo (1,4)
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- 053/2 Analysis of the biocompatibility and biomimeticity of a corn maltodextrin electrospun fiber membrane used as a scaffold to promote peripheral nerve regeneration**
Miriam Metafune
 Miriam Metafune (1), Claudio Cecone (2), Marco Zanetti (2), Stefania Raimondo (1,3), Federica Fregnan (1,3)
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- 054/2 Novel defective pathways in astrocyte-neural progenitor cell cross-talk in a murine model of Down Syndrome**
Mariagrazia Grilli
 Valeria Bortolotto (1), Maria Elisa Salvalai (1), Morris Losurdo (1), Marcello Manfredi (2), Pier Luigi Canonico (1), Mariagrazia Grilli (1)
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Innovative methods and technologies in neuroscience

- 055/2 Extracellular matrix deregulation in spinal cord organoids of Amyotrophic Lateral Sclerosis patients**
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- 056/2 Study of epigenetic characteristics of control and sALS motor neuron organoids**
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- 057/2 Brain complexity in stroke recovery after bihemispheric tDCS**
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- 058/2 Efficiency and robustness in three cortical areas: frontal pole cortex, dorsolateral prefrontal cortex and orbitofrontal cortex**
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- 059/2 Mechanical stimuli as a neuroprotective strategy in Alzheimer's disease**
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- 060/2 Multifunctional magnesium alginate matrix for in vitro brain models as well as for brain regenerative approaches**
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Mechanisms of recovery after neuronal damage

- 061/2 A non-redundant role of EAAT3/EAAC1 for ATP synthesis mediated by GDH in dopaminergic neuronal cells: a new avenue for glutamate metabolism and protection in Parkinson's disease**
Silvia Piccirillo
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- 062/2 Mirtazapine rescues neuronal atrophy in Rett syndrome by directly binding SOS1 and triggering the MAPK/ERK pathway**
Ottavia Maria Roggero
 Stefano Donegà (1,2), Ottavia Maria Roggero (1), Nicolò Gualandi (4,5), Vittoria Berutto (1), Andrea Colliva (1), Gianluca Masella (1), Emanuele Carosati (3), Remo Sanges (4), Gabriele Baj (1), Enrico Tongiorgi (1)
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- 063/2 Functional circuit reconstruction of transplanted striatal neurons into a rodent model of Huntington's Disease**
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064/2 Optimised hESC-derived medium spiny neurons for cell replacement: challenges and opportunities

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065/2 Role of altered vitamin B12 metabolism on the central nervous system homeostasis

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Mitochondriopathies

066/2 The role of Rab proteins in mitochondrial dysfunction related to Parkinson's disease

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Multiple sclerosis

067/2 BB-CRESM: a structured institutional biobank for quality research in Multiple Sclerosis

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068/2 Applicability of sNFL in Multiple Sclerosis as additional monitoring tool in clinical practice and implications in NEDA-3 evaluation

Cecilia Irene Bava

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069/2 IL-9 regulates microglia-driven synaptotoxicity and neurodegeneration in experimental multiple sclerosis

Livia Guadalupi

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070/2 High-fat diet exacerbates inflammatory synaptic damage and disease course in clinical and experimental multiple sclerosis

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071/2 Synaptic sexual dimorphism in multiple sclerosis and experimental autoimmune encephalomyelitis mouse model

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072/2 Re-emergence of T lymphocytes-mediated synaptopathy in progressive multiple sclerosis

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Muscle and motor neuron disorders

073/2 Intracerebroventricular hNSC graft in ALS mice: first pre-clinical results

Clelia Ferrero

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074/2 Analysis of possible glycinergic system alterations in spinal muscular atrophy

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075/2 Development of Growth Hormone Secretagogues as new therapeutical tools for Amyotrophic Lateral Sclerosis

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076/2 Investigating the effect of rare variants of ALS2: from biology to medicinal chemistry

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- 077/2 Ambiguous effects of Hydrogen Sulphide, a study in mouse spinal cord cultures**
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- 078/2 ActR-Fc-nLG3: a novel biological sustaining neuromuscular junction innervation in sarcopenia**
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- 079/2 Can stressors affect ALS onset and progression? Preliminary observations**
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- 080/2 Preclinical data support the initiation of the ACHIEVE trial of DYNE-101 in individuals with myotonic dystrophy type 1 (DM1)**
Erwan Delage
 Erwan Delage, Ester Cotali, Daniel Wolf, Tyler Picariello, Lydia Schlaefke, Ryan Russo, Ann Chang, Scott Hildebrand, John Najim, Qifeng Qiu, Timothy Weeden, John W Davis II, Chris Mix, Baoguang Han, Stefano Zanotti, Oxana Beskrovnaya, Wildon Farwell
Dyne Therapeutics, United States of America
- 081/2 A motor neuron-like spheroid 3D model for in vitro evaluation of neurodegeneration**
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- 082/2 Reactive phenotype and oxidative stress in i-Astrocytes from patients affected by Amyotrophic Lateral Sclerosis: how the mGluR5 negative allosteric modulator CTEP affects these pathological features**
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- 083/2 The counter effect of DMD in peripheral innervation: alterations of the dystrophin-dystroglycan complex in the sciatic nerve of dystrophic mdx mice**
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- 084/2 Monitoring the glutamatergic system in a mouse model of microRNA-218 (miR-218), a motor neuron enriched micro-RNA**
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- 085/2 Repositioned SMN-independent drugs for the treatment of Spinal Muscular Atrophy**
Ersilia Nicorvo
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- 086/2 Exploring the metabolic profile in ependymal stem progenitor cells from spinal cord to develop an innovative therapeutic approach to rescue neurodegeneration in Amyotrophic Lateral Sclerosis**
Marco Cattaneo
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- 087/2 Robust preclinical data support development of DYNE-251 as a potential treatment for individuals with DMD mutations amenable to exon 51 skipping**
Ester Cotali
 Erwan Delage, Ester Cotali, Maria L. Naylor, Cody A. Desjardins, Reshmii Venkatesan, John Hall, Ryan Russo, Kim Tang, John W. Davis II, Timothy Weeden, Stefano Zanotti, Chris Mix, Baoguang Han, Oxana Beskrovnaya, Ashish Dugar
 Dyne Therapeutics, United States of America
- 088/2 Assessing the face validity of a mouse model of megaconial congenital muscular dystrophy: behavioral characterization of choline kinase beta (CHKB) mutant mice**
Giorgia Macchioni
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- 089/2 First evidence of altered Gas6-Axl signaling in ALS: insights into a novel therapeutic target and monitoring biomarker**
Marco Peviani
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- 090/2 STIP1 Homology And U-Box Containing Protein 1 (STUB1/CHIP) mutants as a key factor on TATA-box binding protein (TBP) behaviour in digenic spinocerebellar ataxia type 17 (SCA17-DI)**
Paola Pramaggiore
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- 091/2 Size-based effects of anthropogenic ultrafine particles on lysosomal TRPML1 channel and autophagy in motoneuron-like cells as a putative mechanism of ALS**
Silvia Sapienza
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- 092/2 Novel insights on the role and therapeutic potential of Glycoprotein nonmetastatic melanoma protein B (Gpnmb) in Amyotrophic Lateral Sclerosis**
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- 093/2 Neuroinflammation and neurodegeneration in ALS: exploring new therapeutic approach based on Multi-Targeted Direct Ligands against TSPO and Sigma 1 receptor**
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- 094/2 Neuroprotective effect of extracellular vesicles derived from adipose stem cells diffused through an epithelium on injured neuronal cells**
Ermanna Turano
 Federica Virla (1), Marco Versuraro (1), Sylwia Dabrowska (2), Ilaria Scambi (1), Ermanna Turano (1), Raffaella Mariotti (1)
1: University of Verona, Italy; 2: NeuroRepair Department, Mossakowski Medical Research Institute, Polish Academy of Sciences, Warsaw, Poland
- 095/2 Administration of adipose-derived stem cells EVs in a murine model of Spinal Muscular Atrophy: effects of a new potential therapeutic strategy**
Federica Virla
 Federica Virla (1), Ermanna Turano (1), Ilaria Scambi (1), Lorenzo Schiaffino (1), Raffaella Mariotti (1), Marina Boido (2)
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096/2 Extracellular vesicles from adipose stem cells: their effect on a microglial model of ALS

Raffaella Mariotti

Sylwia Dabrowska (2), Ermanna Turano (1), Ilaria Scambi (1), Alice Nodari (1), Federica Virla (1), Mirco Galie (1), Bruno Bonetti (3), Raffaella Mariotti (1)

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Neuroinflammation

098/2 Effect of Heated Tobacco Products on oxidative status and inflammatory processes in the rat prefrontal cortex

Camilla Morosini

Camilla Morosini (1), Laura Rullo (1), Loredana Maria Losapio (1), Antonio Lacorte (1), Fabio Vivarelli (1), Donatella Canistro (1), Paola Franchi (2), Marco Lucarini (2), Moreno Paolini (1), Sanzio Candeletti (1), Patrizia Romualdi (1)

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099/2 Impact of perinatal exposure to Chlorpyrifos on neuroinflammatory responses and hypnic phenotype in mice

Loredana Maria Losapio

Loredana Maria Losapio (1), Laura Rullo (1), Camilla Morosini (1), Antonio Lacorte (1), Sara Alvente (2), Viviana Lo Martire (2), Chiara Berteotti (2), Stefano Bastianini (2), Gabriele Matteoli (2), Elena Miglioranza (2), Alessandro Silvani (2), Giovanna Zoccoli (2), Sanzio Candeletti (1), Patrizia Romualdi (1)

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100/2 Impaired immune response in the deep cervical lymph nodes in a mouse model of Alzheimer's disease

Giulia Castellani

Giulia Castellani (1), Sarah Phoebe Colaiuta (1), Javier María Peralta Ramos (1), Tommaso Croese (1), Gil Stelzer (2,3), Miguel Ángel Abellanas (1), Afroditi Tsitsou-Kampeli (1), Serena Riccitelli (1), Liora Cahalon (1), Paola Antonello (1,4), Chiara Burgaletto (1), Tomer Meir Salame (2), Merav Kedmi (2,3), Hadas Keren-Shaul (2,3), Igor Smirnov (5,6), Jonathan Kipnis (5,6), Michal Schwartz (1)

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102/2 Role of pentraxin 3 in neurodevelopmental disorders

Giuliana Fossati

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- 103/2 Exploring Toll-like receptor 4 as a target for opioids in microglia**
Morena Zusso
 Chiara Chemello, Laura Facci, Morena Zusso
University of Padova, Italy
- 104/2 Suppressing the microglia-mediated neuroinflammation in Alzheimer's disease with Leishmania infantum parasites**
Estefania Calvo-Alvarez
 Estefania Calvo-Alvarez (1), Giovanna Pepe (2), Chiara Sfogliarini (2), Marina Saresella (3), Elisabetta Vegeto (2), Donatella Taramelli (1), Mario Clerici (3,4), Nicoletta Basilico (5)
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- 105/2 Complement in the cortex of EAE mice: its relevance to synaptopathy**
Alessandra Roggeri
 Alessandra Roggeri (1), Alice Taddeucci (1), Veronica Torre (1), Guendalina Olivero (1), Hanna Trebesova (1), Massimo Grilli (1), Anna Pittaluga (2)
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- 107/2 Neuroprotective effect of bFGF mimetic, SUN11602, on tissue regeneration and glial cells activation in an in vivo model of spinal cord injury**
Irene Paterniti
 Irene Paterniti, Valentina Bova, Alessia Filippone, Alessio Ardizzone, Alberto Repici, Salvatore Cuzzocrea, Emanuela Esposito
University of Messina, Italy
- 108/2 Anti-inflammatory and neuroprotective potential of oleoylethanolamide in rat model of diet induced obesity**
Nisha Zahid
 Nisha Zahid, Marzia Friuli, Barbara Eramo, Silvana Gaetani, Adele Romano
Sapienza University of Rome, Italy

Neuroinformatics

- 109/2 Identification of the cell type-specific neurodevelopmental component of Huntington's disease in the cortex using single-cell RNA sequencing analysis**
Mattia Battistella
 Mattia Battistella (1,2), Gianluca Damaggio (1,2,3), Andrea Scolz (1,2), Paola Conforti (1,2), Vittoria Bocchi (4), Maura Galimberti (1,2), Dario Besusso (1,2), Elena Cattaneo (1,2)
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- 110/2 Single-cell RNA sequencing analysis to study Huntington's Disease in the developing striatum**
Gianluca Damaggio
 Gianluca Damaggio (1,2,3), Mattia Battistella (1,2), Andrea Scolz (1,2), Paola Conforti (1,2), Vittoria Bocchi (4), Maura Galimberti (1,2), Dario Besusso (1,2), Elena Cattaneo (1,2)
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112/2 **Plasma Ser129 phosphorylated alpha-synuclein / total alpha-synuclein ratio discriminates patients affected by Parkinson's disease from controls** **Francesca Longhena**

Francesca Longhena (1), Vanessa Porrini (1), Andrea Pilotto (2), Cristina Gussago (1), Lucia Paolini (1), Paolo Bergese (1), Marika Vezzoli (1), Emirena Garrafa (3), Fiorella Guadagni (4,5), Alessandro Padovani (2), Marina Pizzi (1), Arianna Bellucci (1)

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113/2 **A transgenic zebrafish line expressing human alpha-synuclein to study the biological basis of synucleinopathies** **Silvia Zini**

Silvia Zini, Alessia Muscò, Francesca Longhena, Gaia Faustini, Giuseppe Borsani, Daniela Zizioli, Arianna Bellucci

University of Brescia, Brescia, Italy

114/2 **Evaluation of novel pharmacological chaperones targeting α -synuclein-Glucocerebrosidase interplay in Parkinson's disease** **Antonino Iurato La Rocca**

Antonino Iurato La Rocca (1), Elisabetta Gerace (1), Giuseppe Ranieri (1), Lorenzo Curti (1), Valentina Ferrara (1), Francesca Clemente (2), Camilla Matassini (2), Francesca Cardona (2), Andrea Goti (2), Rodolfo Tonin (1,3), Amelia Morrone (1,3), Guido Mannaioni (1), Alessio Masi (1)

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115/2 **NF- κ B/c-Rel DNA-binding deficit as a potential biomarker for Parkinson's disease** **Michele Mario Gennari**

Michele Mario Gennari (1), Vanessa Porrini (1), Andrea Pilotto (2), Marika Vezzoli (1), Edoardo Parrella (1), Marina Benaresse (1), Gaia Faustini (1), Francesca Longhena (1), Arianna Bellucci (1), Angelo Antonini (3), Alessandro Padovani (2), Marina Pizzi (1)

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116/2 **Morphological and functional effects of a pro-resolving mediator in an α -synuclein rat model of Parkinson's disease** **Francesca Cossa**

Francesca Cossa (1,2), Mariangela Massaro Cenere (1,2), Beatrice Zarrilli (1,2), Cecilia Giacomet (1,2), Mauro Federici (1), Vladimiro Batocchi (3), Ada Ledonne (1,2), Ezia Guatteo (1,4), Nicola Berretta (1), Valerio Chiurchiù (3,5), Nicola Biagio Mercuri (1,2)

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117/2 **Phenotypic and functional characterization of Astrocytes in Parkinson's disease mouse model** **Michele Tufano**

Michele Tufano (1), Giulia De Riso (2), Maria Josè Sisalli (1), Elena D'Apolito (1), Rossana Sirabella (1), Valeria Valsecchi (1), Antonella Casamassa (1), Giuseppe Pignataro (1), Sergio Coccozza (2), Davide Viggiano (3), Antonella Scorziello (1)

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- 118/2 Loss of midbrain dopaminergic neurons elevates serine enantiomers levels in the caudate putamen and cerebrospinal fluid of Parkinson's disease patients**
Tommaso Nuzzo
 Anna Di Maio (1,2), Tommaso Nuzzo (1,2), Luana Gilio (3), Marcello Serra (4), Fabio Buttari (3), Francesco Errico (1,5), Arianna De Rosa (1,2), Mario Stamparoni Bassi (3), Micaela Morelli (4), Jumpei Sasabe (6), David Sulzer (7), Manolo Carta (4), Diego Centonze (3,8), Alessandro Usiello (1,2)
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- 119/2 Peripheral immunophenotype and inflammatory changes in Parkinson's disease patients**
Maria Francesca Palmas
 Maria Francesca Palmas (1), Ana Florencia Vega Benedetti (1), Clara Porcedda (1), Tommaso Ercoli (2), Chiara Burgaletto (3), Giovanni Defazio (2), Alfonso De Simone (4), Giuseppina Cantarella (3), Valeria Sogos (1), Anna R Carta (1)
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- 120/2 Early gut microbiota dysbiosis in c-Rel deficient mice, a model of Parkinson's disease**
Edoardo Parrella
 Edoardo Parrella (1,2), Sara Roversi (3), Erika Scaltriti (4), Mattia Domenichini (3), Vanessa Porrini (1), Michele Mario Gennari (1), Marina Benarese (1), Simona Fiorentini (3), Marina Pizzi (1)
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- 121/2 Lysosomal and alpha-synuclein alterations: predictive biomarkers in irbd-associated Parkinson's disease?**
Deborah Di Martino
 Deborah Di Martino (1), Gerardo Ongari (1), Cristina Ghezzi (1), Laura Castrignanò (1), Micol Avenali (2,5), Michele Terzaghi (3), Antonio Pisani (4,5), Fabio Blandini (6), Silvia Cerri (1)
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- 122/2 Mitochondrial alterations in idiopathic REM-sleep disorder could help to predict Parkinson's disease onset**
Gerardo Ongari
 Gerardo Ongari (1), Cristina Ghezzi (1), Micol Avenali (2,5), Michele Terzaghi (3), Antonio Pisani (4,5), Fabio Blandini (6), Silvia Cerri (1)
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- 123/2 Bioenergetic and lysosomal defects in blood-derived GBA-Parkinson's disease macrophages**
Silvia Cerri
 Gerardo Ongari (1), Cristina Ghezzi (1), Micol Avenali (2,4), Antonio Pisani (3,4), Fabio Blandini (5), Silvia Cerri (1)
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- 124/2 Changes in PD neuromuscular control of locomotion after deep brain stimulation**
Marco Ghislieri
 Marco Ghislieri (1,2), Michele Lanotte (3,4), Marco Knaflitz (1,2), Laura Rizzi (3,4), Valentina Agostini (1,2)
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- 125/2 MT-POM: neuroprotective effect in a Drosophila model of Parkinson's disease**
Maria Antonietta Casu
 Maria Antonietta Casu (1), Ignazia Mocci (1), Dong Seok Kim (2), Nigel H. Greig (3), Maria Dolores Setzu (4), Anna Rosa Carta (4)
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- 126/2 Intensive exercise training counteracts nigrostriatal degeneration and striatal structural changes in an alpha-synuclein based experimental model of Parkinson's disease**
Federica Servillo
 Federica Servillo (1), Maria De Carluccio (1,2), Gioia Marino (1), Federica Campanelli (1), Giuseppina Natale (1), Veronica Ghiglieri (1,3), Maria Teresa Viscomi (1,4), Paolo Calabresi (1,4)
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- 127/2 Salivary alpha-synuclein species as diagnostic biomarker for Parkinson's disease**
Ignazia Mocci
 Ignazia Mocci (1), Fabrizio Angius (2), Tommaso Ercoli (3), Francesco Loy (2), Maria Francesca Palmas (2), Giada Cannas (2), Aldo Manzin (2), Giovanni Defazio (3,4), Anna Rosa Carta (2)
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Proteinopathies in neurodegenerative diseases

- 28/2 Different chronic stress paradigms converge on endogenous TDP43 cleavage and aggregation**
Niccolò Candelise
 Niccolò Candelise (1,2,3), Daniela Caissutti (2), Henri Zenuni (4), Valentina Nesci (3,4), Silvia Scaricamazza (3), Illari Salvatori (3), Zaira Spinello (2), Vincenzo Mattei (5), Tina Garofalo (2), Alberto Ferri (3,6), Cristiana Valle (3,6), Roberta Misasi (2)
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- 129/2 Shared behaviours of KIF5A frameshift mutants in neurodevelopment and neurodegeneration**
Marta Cozzi
 Marta Cozzi (1), Barbara Tedesco (1), Guglielmo Patelli (1), Veronica Ferrari (1), Elena Casarotto (1), Marta Chierichetti (1), Paola Pramaggiore (1), Laura Cornaggia (1), Margherita Piccolella (1), Mariarita Galbiati (1), Paola Rusmini (1), Valeria Crippa (1), Cinzia Gellera (2), Daniela Di Bella (2), Stefania Magri (2), Riccardo Cristofani (1), Franco Taroni (2), Angelo Poletti (1)
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- 130/2 The Neuropeptide S Reduces Alcohol Self-administration and Impulsivity in Rats**
Min Li
Min Li, Sara De Carlo, Nazzareno Cannella
School of Pharmacy, Pharmacology Unit, Center for Neuroscience, University of Camerino, Camerino, Italy
- 131/2 Chronic exposure to MDMA can alter neuroinflammatory processes in rats**
Antonio Lacorte
Antonio Lacorte (1), Laura Rullo (1), Camilla Morosini (1), Loredana Maria Losapio (1), Ana Domi (2), Roberto Ciccocioppo (2), Sanzio Candeletti (1), Patrizia Romualdi (1)
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- 132/2 Chronic exposure to cannabinoids induces synaptic alterations in immature and mature organotypic hippocampal slice cultures**
Costanza Mazzantini
Costanza Mazzantini, Domenico E. Pellegrini-Giampietro, Elisa Landucci
University of Florence, Italy
- 133/2 Environmental enrichment modulates mesolimbic neural activity in Sardinian alcohol-preferring rats**
Anna Lisa Muntoni
Michele Santoni (1), Paola Maccioni (2), Marco Pistis (1,2,3), Giancarlo Colombo (2), Anna Lisa Muntoni (2)
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- 134/2 Inhibition of phosphodiesterase 7 enzymes reduces alcohol drinking and relapse in animal models of alcohol use disorders**
Adana Keshishian
Adana Keshishian (1), Esi Domi (1), Gregory Demopoulos (2), George Gaitanaris (2), Roberto Ciccocioppo (1)
1: University of Camerino, Italy; 2: OMEROS Corporation, USA
- 135/2 Selective inhibition of Phosphodiesterase 7 enzyme reduces cue- and stress- induced reinstatement of cocaine seeking in the rat**
Sofia Vellere
Sofia Vellere (1), Esi Domi (1), Adana Keshishian (1), Gregory Demopoulos (2), George Gaitanaris (2), Roberto Ciccocioppo (1)
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- 136/2 Increased MOP expression in the Ventral Tegmental Area mediates higher heroin self-administration and motivation expressed by marchigian sardinian alcohol preferring rats compared to non-preferring Wistars**
Hela Mrizak
Hela Mrizak (1), Veronica Lunerti (1), Laura Rullo (2), Esi Domi (1), Patrizia Romualdi (2), Roberto Ciccocioppo (1), Amy Lasek (3), Nazzareno Cannella (1)
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- 137/2 Impact of the drinking in the dark (DID) model of alcohol use disorder on locomotion and dopaminergic neurotransmission in mice**
Carolina Giulia Ferroni
 Carolina Giulia Ferroni (1,2), Noemi Nicosia (1), Maria Regoni (1), Guendalina Bastioli (1), Margherita Spadaccini (1), Veronica Di Febo (1), Atea Shkodra (1), Ceren Ozcan (1), Stefano Comai (1,3), Flavia Valtorta (1), Danilo De Gregorio (1)
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- 138/2 Oxytocinergic system alteration induced by attachment bond disruption mediates the vulnerability to cocaine effects in adulthood**
Diana Municchi
 Diana Municchi (1,2), Camilla Mancini (3), Sebastian Luca D'Addario (2), Alice Passeri (1,2), Marta Tiberi (2), Lucy Babicola (1), Matteo Di Segni (2), Luisa Lo Iacono (1,2), Diego Andolina (1,2), Carlo Cifani (3), Valerio Chiurciu (2), Rossella Ventura (1)
1: La Sapienza Università di Roma, Italy; 2: IRCCS Fondazione Santa Lucia, Roma, Italy; 3: University of Camerino School of Pharmacy, Camerino, Italy
- 139/2 Cebranopadol, a novel pan-opioid agonist with low abuse liability, attenuates heroin self-administration and seeking in the rat**
Caitlin Crook
 Caitlin Crook (1), Qianwei Shen (1), Hongwu Li (1,2), Friedbert Weiss (3), Nazzareno Cannella (1), Roberto Ciccocioppo (1)
1: School of Pharmacy, Pharmacology Unit, University of Camerino, Camerino, Italy; 2: School of Chemical Engineering, Changchun University of Technology, Changchun, 130012, China; 3: Department of Neuroscience, The Scripps Research Institute, La Jolla, California, USA
- 140/2 Adolescent nicotine exposure: effects on alcohol drinking behavior**
Cristina Cadoni
 Cristina Cadoni (1), Augusta Pisanu (1), Alessandra Tiziana Peana (2)
1: National Research Council of Italy - Institute of Neuroscience, Italy; 2: University of Sassari - Dept. of Medicine, Surgery and Pharmacy

Synapses and plasticity

- 141/2 Role of adenosine A2A/A2B receptors on CA1 synaptic plasticity or during an ischemic-like insult**
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- 142/2 Cortical rewiring after peripheral injection of botulinum neurotoxin type A**
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- 143/2 ADAM10 (dys)function at the Huntington's Disease cortico-striatal synapse**
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