



UNIVERSITY OF GENOVA
PhD COURSE IN NEUROSCIENCE
2023 SUMMER SCHOOL II

September 11 – 15, 2023

AULA C-3.01 “SCORTECCI”
Palazzo delle Scienze, DISTAV, (III piano)
Corso Europa 26, Genova

Monday, September 11 - Physiopathology of the Retina

(Tutors: Stefano Di Marco, Tommaso Rossi, Fabio Benfenati)

9.00 – 12.00

The kaleidoscopic retina: evolution of multiple encoding strategies. *Stefano Di Marco*
(Center for Synaptic Neuroscience and Technology, The Italian Institute of Technology, Genova, IT)

The retina as a window for the brain. Physiology and pathological conditions. *Enrica Strettoi*
(Institute for Neuroscience, CNR, Pisa, IT)

14.00 - 17.00

Mitochondrial optic neuropathies, the tip of mito-neurodegeneration iceberg. *Valerio Carelli*
(IRCCS Istituto delle Scienze Neurologiche di Bologna, Bologna, IT)

3D Retinal displacement: a new imaging modality and its functional implications.
Tommaso Rossi (IRCCS Fondazione Bietti ONLUS, Roma, IT)

Tuesday, September 12 - Neuro-Oncology

(Tutors: Tullio Florio, Pietro Fiaschi)

9.00 – 12.00

Oncolytic virotherapy as agnostic vaccination for glioblastoma. *Paolo Malatesta* (Ospedale Policlinico San Martino – Genova, IT)

The role of microRNAs in neurodevelopment and in the pathogenesis of brain cancers: therapeutic challenges and opportunities. *Davide De Pietri Tonelli (Neurobiology of miRNAs lab. Istituto Italiano di Tecnologia, IIT, Genova, IT)*

14.00 - 17.00

High-grade gliomas: (molecular) neuropathology. *Paolo Nozza (Division of Pathology, Ospedale Policlinico San Martino – Genova, IT)*

What is new in the management of gliomas in the molecular era? *Roberta Rudà (Division of Neuro-Oncology, Department of Neuroscience 'Rita Levi Montalcini'; University and City of Health and Science Hospital – Torino, IT)*

Wednesday, September 13 - Movement Disorders: an interplay between basal ganglia and cerebellum

(Tutors: Giorgio Grasselli, Laura Avanzino)

9.00 – 12.00

Motor control circuits: neural bases and modeling. *Claudia Casellato (Department of Brain and Behavioral Sciences, University of Pavia, Pavia, IT)*

Pathophysiology of dystonia: What can we learn from animal studies? *Antonio Pisani (Department of Brain and Behavioral Sciences, University of Pavia, Pavia, IT)*

14.00 – 17.00

Pathophysiology of Parkinson Disease: human studies. *Matteo Bologna (Department of Human Neuroscience, University of Rome La Sapienza, Roma, IT)*

Pathophysiology of dystonia: human studies. *Davide Martino (Department of Clinical Neurosciences, University of Calgary, Alberta, CAN) [online lecture]*

Thursday, September 14 - Neurodevelopment and autism spectrum disorders

(Tutors: Anna Fassio, Lino Nobili)

9.00 – 12.00

The many ways of disrupting cortical processing in neurodevelopmental diseases. *Gian Michele Ratto (Istituto di Neuroscienze, Pisa, IT)*

How to model neurodevelopmental disorders in preclinical research: from early signs to full behavioural dysfunctions. *Caterina Michetti (Dipartimento di Medicina Sperimentale, Università di Genova, Genova, IT)*

14.00 - 17.00

Intention encoding and readout in autism *Cristina Becchio (Dept. of Neurology, University Medical Center Hamburg-Eppendorf, Hamburg, Germany)*

The Sensorimotor Brain. *Luciano Fadiga (Department of Neuroscience and Rehabilitation, University of Ferrara, Center for Translational Neurophysiology of Speech and Communication, Italian Institute of Technology, Ferrara, Italy)*

Friday, September 15 - Neuromuscular Disorders

(Tutors: Angelo Schenone, Chiara Fiorillo, Lucilla Nobbio)

9.00 Welcome from the organizing committee.

9.30-12.30 Basic Research Session

Molecular mechanisms in the pathogenesis of CMT neuropathies. *Stefano Previtoli (IRCCS Ospedale S. Raffaele Milan, IT)*

Studying the peripheral nervous system: from in vitro and in vivo models to patients. *Giovanna Capodivento (Ospedale Policlinico San Martino IRCCS, Genova, IT)*

The regulation of contraction in striated muscle. *Marco Linari (Dipartimento di Biologia, University of Florence, IT)*

14.00 – 17.00 Translational Research Session

ALS prognosis: predictive factors and mortality. *Adriano Chiò (Dipartimento di Neuroscienze, University of Turin, IT)*

Therapeutic strategies in Inherited Neuropathies: lights and shadows. *Marina Grandis (Dipartimento di Neuroscienze, Riabilitazione, Oftalmologia, Genetica e Scienze Materno-Infantili, University of Genova, IT)*

Novel disease gene discovery approaches for Neuromuscular Disorders. *Marcello Scala (Dipartimento di Neuroscienze, Riabilitazione, Oftalmologia, Genetica e Scienze Materno-Infantili, University of Genova, IT)*