



MOONRISE
INTERNATIONAL SUMMER SCHOOL
CELLULAR, BEHAVIORAL AND COGNITIVE NEUROSCIENCE

Bari, September 19-23, 2022
PROGRAM OVERVIEW

	MONDAY 19	TUESDAY 20	WEDNESDAY 21	THURSDAY 22	FRIDAY 23
8:30 – 9:00	Registration and Welcome Coffee	Keynote Lectures	Keynote Lectures	Keynote Lectures	<i>Masmec Day</i>
9:00 – 10:00	MOONRISE Opening Ceremony				
10:00 – 11:00	Keynote Lectures				
11:00 – 11:30		Coffee Break			
11:30 – 12:30		Practical activity introduction	Practical activity introduction	Practical activity introduction	<i>Masmec Day</i>
12:30 – 13:30					
13:30 – 14:30	Lunch Break				
14:30 – 18:30	Practical activity section	Practical activity section	Practical activity section	Practical activity section	Final Test and Concluding Remarks
<i>EVENING</i>		City tour		Social Event	

DETAILED PROGRAM

MONDAY 19

“NEUROBIOLOGY OF MEMORY”

- 08:30 – 09:00 | Registration and Welcome Coffee *c/o Centro Polifunzionale per studenti, Università degli studi di Bari (ex Palazzo delle Poste)*
- 09:00 – 10:00 | MOONRISE Opening Ceremony:
- **Stefano BRONZINI**: Rector of the University of Bari Aldo Moro
 - **Alessandro BERTOLINO**: Head of the Department of Biosciences, Biotechnologies and Biopharmaceutics
 - **Antonio FRIGERI**: Summer School Director
- 10:00 – 11:00 | *Lecture:*
- **Andrea ROSSI**: Investigating and Modelling Human Disease: Genome Editing, Next Generation Sequencing and Organoids
- 11:00 – 12:00 | *Lecture:*
- **Grazia Paola NICCHIA**: Blood Brain Barrier in health and disease
- 12:00 – 13:00 | *Practical activity introduction:*
- **Onofrio VALENTE; Claudia PALAZZO**: Exploring the nervous system diversity in vitro via iPSCs and Blood Brain Barrier models
 - **Simona LOBASSO**: Lipidomic Approach to neurobiology
 - **Antonio GNONI; Salvatore SCACCO**: Proteomic Approach to neurobiology
- 13:30 – 14:30 | *Lunch Break: c/o Nuovo Complesso delle Scienze Biomediche, Policlinico di Bari*
- 14:30 – 18:30 | *Practical activities:*
- **Onofrio VALENTE; Claudia PALAZZO; Pasqua ABBRESCIA; Gianluca SIGNORILE**: Exploring the nervous system diversity in vitro via iPSCs and Blood Brain Barrier models
 - **Antonio GNONI**: Proteomic
 - **Silvia RUSSO**: Lipidomic

TUESDAY 20

“BEHAVIORAL AND MOLECULAR BIOMARKERS FOR NEURODEGENERATIVE DISORDERS”

- 08:30 – 09:30 | *Keynote Lecture:*
- **Susanna PIETROPAOLO:** Testing cognitive deficits in mouse models of neurodevelopmental disorders
- 09:30 – 10:30 | *Keynote Lecture:*
- **Raffaele TOMMASI:** Super-resolution microscopy
Practical activity introduction
 - **Michele DIBATTISTA:** Behavioral Neuroscience: Animal models and how to test them
- 10:30 – 11:00 |
- 11:00 – 11:30 | *Coffee Break*
- 11:30 – 12:30 | *Practical activity introduction*
- **Antonio FRIGERI; Barbara BARILE:** Super-Resolution Microscopy
 - **Isabella Laura SIMONE; Maddalena RUGGIERI:** Diagnostic and molecular tests for the diagnosis and monitoring of neuroinflammatory and neurodegenerative diseases
 - **Maria TROJANO; Piero IAFFALDANO:** Data collection and statistical analysis in basic and clinical neurosciences
- 12:30 – 13:30 | *Lunch Break*
- 13:30 – 18:00 | *Practical activities:*
- **Susanna PIETROPAOLO; Donatella LOBRAICO; Pasqua ABBRESCIA:** Novel object recognition; Cookie Test
 - **Gianluca SIGNORILE; Roberta PATI; Barbara BARILE:** Super-Resolution Microscopy
 - **Maddalena RUGGIERI:** Diagnostic and molecular tests for the diagnosis and monitoring of neuroinflammatory and neurodegenerative diseases
 - **Piero IAFFALDANO:** Data collection and statistical analysis in basic and clinical neurosciences
- 19:00 | *SOCIAL DINNER*

WEDNESDAY 21

“FUNCTIONAL NEUROIMAGING”

- 08:30 – 10:00 | *Keynote Lecture:*
- **Christian BELLEBAUM:** The role of prediction in cognition: Potential implications for deficit patterns in patients with brain damage
- 10:00 – 11:00 | *Keynote Lecture:*
- Fiorenzo CONTI:** *Glutamate transporter GLT-1: cellular, functional and pathophysiological aspects*
- 11:00 – 11:30 | *Coffee Break:*
- 11:30 – 12:30 | *Lecture:*
- **Daniele MARINAZZO:** Effective and Functional brain connectivity in Neuroscience
- 12:30 – 13:30 | *Practical activity introduction:*
- **Giuseppe BLASI:** fMRI data acquisition and analysis
 - **Marina DE TOMMASO; Damiano PAOLICELLI; Giulio PERGOLA:** electroencephalogram (EEG), Near Infrared Spectroscopy (NIRS) and magnetoencephalography (MEG)
- 13:30 – 14:30 | *Lunch Break*
- 14:30 – 18:30 | *Practical activities:*
- **Giusy TANCREDI:** Electroencephalography (EEG)
 - **Angela Antonio TAVELLA; Debora TORO:** Magnetoencephalography (MEG) and functional Magnetic Resonance Imaging (fMRI)
 - **Alessia MANNI; Damiano PAOLICELLI:** functional Near-Infrared Spectroscopy (fNIRS)

THURSDAY 22
“NEUROPSYCHOLOGICAL ASPECTS OF MEMORY”

- 08:30 – 9.30 | *Keynote Lecture:*
- **Alessandro OLIVI:** Multimodality intraoperative approaches for the surgical treatment of lesions in proximity of eloquent areas of the brain
- 9:30 – 10:30 | • **Maria Fara DECARO; Paolo TAURISANO:** Neuropsychological tests for assessing cognitive performance
- 10:30 – 11:00 | *Coffee Break:*
- 11:00 – 13:30 | *Practical activity introduction and neurosurgery:*
- **Francesco SIGNORELLI; Raffaella MESSINA:** Pre-/intra- and post-operative monitoring of cognitive functioning and neuropsychological
- 13:30 – 14:30 | *Lunch Break*
- 14:30 – 18:30 | *Practical activities:* Neuropsychological tests for assessing cognitive performance:
- **Livio CLEMENTE:** Age-based standard protocols to assess memory and AD-type patterns of deficits
 - **Marika Madia BIASI; Chiara ABBATANTUONO:** Standardized and flexible batteries for patients with cognitive-motor impairment, or tumors in eloquent brain areas
 - **Veronica VERRI; Ilaria PEPE:** Interview arrangement and assessment of mood, independence, and coping resources of patients and caregivers

EVENING | *SOCIAL EVENT*

FRIDAY 23

“FROM RD TO MARKETING: THE MASMEC EXPERIENCE”

- 08:30 – 10:00 | **MASMEC:** Innovative automation systems for biomedical applications
- 10:00 – 12:00 | **MASMEC:** Anatomical navigation system
- 12:00 – 13:30 | Student's Project Presentations
- 13:30 – 14:30 | *Lunch Break*
- 14:30 – 16:00 | Student's Project Presentations
- 16:00 – 16:30 | *Coffee Break*
- 16:00 – 16:30 | Student's Project Presentations and Final Test