

## Ph.D course in Neurobiology

**Head of the Ph.D course:**

**Prof. Laura BALLERINI**

**Web site:**

[Neurobiology](#)

**Research lines:**

- Peripheral Nervous System
- Pain, touch and itch
- Synaptic Neurophysiology and Neuronal Networks
- Optogenetic and electrophysiological approaches to Neuronal Networks
- Neurotoxicity and calcium signalling
- Spatiotemporal dynamics of calcium signalling in neuroglia
- Neurophysiology of Motor control
- Spinal networks patho-physiology and locomotion
- Respiratory physiology
- Neurophysiology and neuropharmacology of spinal motoneurons
- Visual systems and feature detection
- Simultaneous acquisition of neural activity and behavior
- Innate behaviors and their underlying circuits
- Functional imaging approaches to neural circuits
- Neuroecology
- Auditory system and multisensory integration
- Computational neuroscience and modelling
- Brain states and neuromodulation
- Sensory information processing abnormalities in psychiatric disorders

**Fellowships available: 2 funded by SISSA**

**3 funded by FSE +**

**Admission: Academic and scientific qualifications + oral exam (remotely/presence)**

**Beginning of the Courses: 4 November, 2026**

**Evaluation of academic and scientific qualifications: 30 points**

**Access to interview Exam: minimum mark of 21/30 on academic and scientific qualifications**

**Evaluation of Oral Exam: 70 points**

**To be considered eligible, candidates must pass both phases (academic qualifications and interview) with a minimum mark of 7/10 or equivalent**

**Deadline for online submission of applications: 25<sup>th</sup> March, 2026**

**Oral Exam: 22<sup>nd</sup> – 23<sup>rd</sup> April, 2026**

**Admission to the oral exam and results of all evaluations will be notified by email.**