PhD position in Neuroscience and Behaviour

We are seeking candidates for one fully-funded four-year PhD position at the Neuroscience and Behaviour Laboratory (www.iannettilab.net) of the Istituto Italiano di Tecnologia (IIT). A potential second position is subject to approval of the 2026 budget. The successful candidate(s) will work under the main supervision of Prof. Giandomenico Iannetti (https://goo.gl/RcY1ER).

The expected starting date is early 2026 (flexible): later starts can be negotiated.

The PhD project is flexible and can be defined based on the candidate's skills and preferences, within the main research interests of the laboratory.

Among the different options, one track revolves around developing computational models of the recent action-based explanations of bodypart-centered response fields (Bufacchi and Iannetti *Trends in Cognitive Sciences,* 2018; Bufacchi et al *Nature Neuroscience*, 2025), and will entail close collaborative work with Dr Rory Bufacchi at EMBL (https://shorturl.at/dg6LW). Another track will investigate the physiological mechanisms and behavioural effects of the large thalamo-cortical transients elicited by surprising environmental stimuli (e.g. Somervail et al *Brain* 2025), in co-supervision with Dr Peter Neri (https://shorturl.at/BBb3k).

The laboratory uses neurophysiological, psychophysical and computational approaches to investigate fundamental questions about how the function of the nervous system generates behaviour, in both humans and non-human species. For an overview of the lab's interests, members and publications see www.iannettilab.net and https://sites.google.com/site/neripeter.

The successful applicant will receive training and access to the laboratory's fully equipped, state-of-the-art facilities for combining behavioural measurements, physiological recordings, and brain stimulation in humans, in both controlled and ecological environments (including, for example, virtual/augmented reality). Furthermore, depending on the applicant's interests and availability, the successful applicant will have access to facilities for collecting behavioural and neural data from a range of animals, from invertebrates to non-human primates.

The ideal candidate should have a Bachelor's or Master's degree either in the life sciences (such as neuroscience, physiology, psychology) or in the computational/physical sciences (such as computational neuroscience, computer science, or physics). However, candidates with different backgrounds will be considered. In any case, they must have a strong motivation for conducting research addressing fundamental neurobiological questions, strong ability for critical thinking, and eagerness to build a strong knowledge of behavioural neurophysiology. Strong analytical skills and coding abilities in mainstream programming languages are also essential. The ideal candidate should be independent, proactive, and eager to collaborate with a team involving both senior and junior members, as well as interact with other research groups internationally. The minimum formal requirements to be admitted to the PhD program and details on how to apply are detailed in the Annex, below. Prospective students who have preliminary questions before submitting a formal application are invited to contact giandomenico.iannetti@iit.it and peter.neri@iit.it

Annex

Requirements. The minimum formal requirements to be admitted to the PhD program are (i) a Master-level degree, which broadly corresponds to a 4-5-year undergraduate MSc/MChem/MEng-like degree or to a postgraduate Masters in the British system, or to a second level University degree in Italy; (ii) a grade corresponding to an upper second class (2.1) or a merit in the UK system or 100/110 in the Italian system. Candidates with lower grades but redeeming features (publications, specific expertise) are requested to

contact the potential supervisors before applying; (iii) where English is not the applicant's first language, a valid IELTS (International English Language Testing System) certificate. The minimum acceptable score is an overall 6.5, with no less than 6.0 in any of the four categories

The PhD program organized in collaboration with the Open University; this international PhD program confers Doctorates in *Health, Sustainable and Human Technologies*.

How to apply. Prospective students must submit the following documents using the online form available here: https://shorturl.at/uFOKc

1) 2-page CV, including studies, expertise and achievements.
2) 1-page personal statement, includes the applicant's research interests
3) A transcript of undergraduate and postgraduate studies.
4) A valid IELTS certificate, obtained no more than two years before the proposed registration date.
5) Contacts of two referees.

Deadline for application: Review of applications will begin immediately and continue until the positions are filled.

Istituto Italiano di Tecnologia, with its headquarters in Genoa, Italy, is a non-profit institution with the primary goal of creating and disseminating scientific knowledge and strengthening Italy's technological competitiveness. IIT's research endeavour focuses on high-tech and innovation, representing the forefront of technology with possible application from medicine to industry, computer science, robotics, life sciences and nanobiotechnologies. Istituto Italiano di Tecnologia is an Equal Opportunity Employer that actively seeks diversity in the workforce.

Please note that the data that you provide will be used exclusively for the purpose of professional profiles' evaluation and selection, and in order to meet the requirements of Istituto Italiano di Tecnologia. Your data will be processed by Istituto Italiano di Tecnologia (Via Morego 30, Genoa) acting as Data Controller, in compliance with the rules on protection of personal data, including those related to data security.