



NEUROSCIENCES	
CYCLE	XLII
COORDINATOR	Prof.ssa Elena BORRA email: elena.borra@unipr.it Department of Medicine and Surgery
DURATION	3 years
START DATE	01/11/2026
CURRICULA	1. Neuroscience 2. Behavioural Biology
POSITIONS AVAILABLE	6
ADMISSION PROCEDURES	Assessment of QUALIFICATIONS and Research Project Oral Exam in PRESENCE or REMOTELY
ADMISSION REQUIREMENTS	Regardless of age and citizenship, applicants may apply if they hold at least one of the following qualifications: • a Master's degree (Laurea Magistrale or equivalent); • a degree awarded under the previous Italian system; • an equivalent academic qualification obtained abroad, recognized as suitable for admission to the PhD programme. Applicants who have not yet graduated may also apply, provided that they obtain their degree by 31 October 2026 .
TRAINING OBJECTIVES	
• Provide a global and interdisciplinary view of the proposed research areas, ensuring a high degree of specialization in research within these fields; • Acquire skills and abilities for the autonomous use of at least one neuroscientific investigation technique; • Promote the development of national and international networks and exchanges aimed at sharing and deepening the research topic addressed.	
RESEARCH AREAS	
• Integrated Neurosciences: comparative neurophysiology and neuroethology, cognitive and social neurosciences, cognitive psychology, psychology of perception and action, psychobiology, psychophysiology. • Behavioral Biology: biological bases of social, agonistic, and parental behavior, gene/environment interactions on behavioral development, cognitive and emotional ethology in animals and humans.	

Position with Scholarship		
N°	Funding entity	Research Topic, if any
2	University of Parma (Ministerial funds, University funds and Cariparma Foundation)	
1	Fully funded by Cariparma Foundation	



Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 6 of the Competition notice)		
N°	Funding entity	BOUND RESEARCH TOPIC
1	partially funded by University and Cariparma Foundation funds and co-funded by the Department of Medicine and Surgery (funds Project "CIRCEM", BONINI_2023_FARE_R20NJ7BBA7 Prof. Bonini)	Neuroethology of social behavior in primates
1	partially funded by University and Cariparma Foundation funds and co-funded by Hertie Institute for Clinical Brain Research	Neural Bases of Nonverbal Communication in Common Marmosets (<i>Callithrix jacchus</i>)
1	funded by Department of Medicine and Surgery (funds Prof. Papale)	Causal control of visual memory in monkeys

ADMISSION ASSESSMENT
Assessment of QUALIFICATIONS: up to 40 points (a minimum score of 20 points shall be required to be admitted to the Oral Exam) ORAL EXAM: up to 80 points Minimum score for ELIGIBILITY: 70/120

ORAL EXAM PROGRAM		
THE ORAL EXAM TAKES IN THE PRESENCE and with the possibility of carrying out the interview REMOTELY for candidates residing abroad or temporarily abroad for study / work reasons. To this end, candidates must submit a motivated REQUEST as per the model attached to the competition announcement.		
The ORAL test includes: 1) the verification of the candidates' general preparation on topics related to the research topics of the PhD course, 2) the presentation and discussion of the research project , 3) the verification of the knowledge of the English language.		
Foreign Language the fluency of which shall be assessed during the Oral Exam	ENGLISH	The evaluation of the knowledge of this language will be oral and will consist in the discussion of the research project presented in English.

SCHEDULE OF THE ADMISSION EXAMS		
ASSESSMENT OF QUALIFICATIONS		It is the candidate's responsibility to verify the outcome of the evaluation of qualifications, which can be consulted in their reserved area by connecting to the page http://unipr.esse3.cineca.it/Home.do in the days preceding the date of the Oral Exam. Publication on the website constitutes official notification. No individual communication will be sent to candidates by email.
ORAL EXAM	DATE	9 th September 2026 (with possible extension to September, 10)
	TIME	09:00 am (Italian Time)



	PLACE	ROOM C Department of Medicine and Surgery INTEGRATED BIOTECHNOLOGICAL PLEXUS Via Volturno, 39/E – 43125 PARMA - ITALY
FURTHER INFORMATION	The choice of the Research Topic to be expressed in Annex A is not binding on the assignment of the research project, and it is intended to assess candidates skills during the admission exam. <u>The PhD research topic will be assigned by the Academic Board.</u>	
	THE INTERVIEW MAY ALSO TAKE PLACE ENTIRELY IN ENGLISH	For foreign candidates, the admission examinations may be held in English at the candidate's choice.

LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT	
MANDATORY DOCUMENTS TO BE ATTACHED TO THE ON-LINE APPLICATION	
ANNEX A	(art. 3.2 of the Competition notice)
Identification Document	Scanned Copy of a valid identity document with photo (i.e. identity card, passport)
Curriculum Vitae et studiorum	No specific CV format is required (see art. 3.2 of the Competition notice)
Degree thesis	The full thesis in pdf format. Undergraduate applicants must submit the draft of the thesis approved by their supervisor.
Academic Qualifications	Certificates and academic transcript of records for both Bachelor' and Master' degrees containing the following details for each degree held: (art. 3.2 of the Competition notice): University that granted the degree - Type of degree (first cycle/second cycle/single cycle) Name of the degree program - Date of graduation - Final mark - List of exams and corresponding scores (academic transcript of records) - Translation into Italian or English (only for degrees issued in languages other than Italian or English).
Research Project	Written in English, 3 pages with single spacing in Times New Roman 12, including bibliography, it must focusing on an original research topic (unpublished, developed personally by the candidate. It should be noted that the Examination Board can use of IT tools useful for verifying the originality of the submitted project) and it shall be structured as follows: introduction of the problem in the scientific context, relevance of the problem, objectives, expected results. In accordance with the Guidelines for the responsible use of Artificial Intelligence in education and research, the candidates must explicitly state whether they have used Generative Artificial Intelligence systems in the production of the research proposal attached to their application form, specifying which tools were used and for which parts of the document. During the oral examination, the Admission Board will assess the candidate's full mastery of the content included in the document and their ability to justify the methodological and scientific choices made in the project. <u>The research proposal does not constitute a binding commitment for the subsequent choice of the PhD research topic, which will be assigned by the Academic Board</u> Failure to submit the research proposal will result in exclusion from the selection procedure.



LIST OF EVALUABLE QUALIFICATIONS (only qualifications attested by a document drawn up in Italian or in English)		
Curriculum Vitae et studiorum	Including academic career and postgraduate experience, accompanied by a statutory declaration in lieu of the certification of the exams passed with the relevant marks, as well as the final graduation mark. The marks of the exams and the graduation mark will be the most relevant element of the evaluation.	Up to 40 points
Curriculum Vitae et Studiorum will be evaluated based on the following qualifications and scores:		
Graduation mark	Score related to the final mark: - 110 with honours (magna cum laude): 10 points; - 110: 7 points - From 108 to 109: 5 points - From 106 to 107: 3 points - 104-105: 1 point - Under 104: 0 points	Up to 10 points
Average of the exam marks (if the candidate will attain the degree no later than 31 October 2026)	Score related to the average of the exam marks: - From 29/30 to 30/30: 10 points - From 28/30 to 28.99/30: 7 points - From 27/30 to 27.99/30: 5 points - From 26/30 to 26.99/30: 3 points - From 25/30 to 25.99/30: 1 point - Under 25/30: 0 points	Up to 10 points
Graduation thesis	Congruence with the research topics of the PhD course and methodological quality of the experimental or bibliographic work. o Experimental thesis related to the PhD program of Neuroscience: 10 points o Non-experimental and relevant thesis: 5 points o Thesis not relevant: 0 points	Up to 10 points
Research Project	Project evaluation score: o scientific value: 2.5 points o structure of the proposal: 2.5 points o proposal feasibility in relation to the specific research topics of the PhD course: 2.5 points o originality of the proposal: 2.5 points	Up to 10 points
Statement of Research Interest	Short text – maximum 1 page – in Italian or in English	Up to 2 points
Scientific Publications	o Each article in a peer-reviewed international journal: 1 point o Each book chapter: 0.4 points o abstracts/papers/posters presented at conferences or symposia: 0.3 points The same categories are half valued if in Italian. The points of the publications are normalized for post-graduate years, that is, divided by the numbers of post-graduate years.	Up to 5 points
Other Academic qualifications	Other academic qualifications consistent with the research topics of this PhD program	Up to 3 points
EVALUATION ORAL EXAM		
Interview Program	Evaluation CRITERIA	POINTS
The ORAL examination includes: A1) Neurosciences: the oral report on 2 topics drawn at random (one from list 1 and	o Up to 40 points for the oral report on one of the first 5 and one of the second 5 topics, extracted from the list alongside (up to 20 points per topic); o Up to 20 points for the project presentation;	Up to 80 points



one from list 2) among those indicated below: 1.1. Genesis and transmission of the nervous impulses 1.2. The synapses 1.3. The reflexes 1.4. Molecular and cellular bases of signal Transduction 1.5. Neural bases of plasticity 2.1 The motor system 2.2. The visual system 2.3. The somatosensory system 2.4. The autonomic nervous system and emotions 2.5. Neurobiology of learning and memory A2) Behavioural Biology: the oral report on 2 topics chosen by lot from those indicated in the list below: 1.1 Imprinting and development of behavior 1.2. Individual and social learning 1.3. Genetics and epigenetics of behavior 1.4. Hormones, neurotransmitters and behavior 2.1. Reproductive behavior: parental investment and sexual selection, mating systems and parental care 2.2 Behavior and social organization 2.3. Aggression, aggression and social hierarchies 2.4. Ethological observation techniques of behavior B) The presentation and discussion of the research project, aimed at verifying the candidate's aptitude for scientific research. The discussion will take in English to evaluate the knowledge and the fluency of the language	○ Up to 20 points for knowledge of the foreign language	
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