



BIOTECHNOLOGY AND LIFE SCIENCE	
CYCLE	XXXVII
COORDINATOR	Prof. Marco VENTURA email: marco.ventura@unipr.it Department of Chemistry, Life Sciences and Environmental Sustainability
DURATION	3 anni
STARTING DATE OF THE PHD PROGRAM	01/11/2021
RESEARCH TOPICS (The candidate MUST mandatorily indicate one research topic in the ANNEX A)	
<ul style="list-style-type: none"> • Environmental • Biomolecular • Genetics and microbiology 	
TRAINING OBJECTIVES	
<p>The PhD in Biotechnology and Biosciences aims to train experts who can carry out advanced research activities in the biological disciplines and biotechnology. The Doctor's research themes concern the study of the function, organization and expression of the genome of microbial, plant and animal organisms (including humans), to deepen their basic knowledge, also in view of possible applications in biotechnology. The methodologies used are mainly those of genetic, microbiology, molecular biology, biochemistry and applied biology. Starting from this common objective and from a highly cross-cutting advanced teaching activity, in order to train PhDs with highly qualified skills in specific areas of Biotechnology and Life Sciences, three main areas of research defined as such: 1) environmental; 2) genetics and microbiology; 3) biochemical-molecular. PhD students will be involved full-time in a research project, to which they will also make critical and proactive contributions. In this way, they will acquire a marked scientific and management autonomy, also thanks to the numerous scientific, national and international collaborations in which they will be involved.</p>	
ADMISSION REQUIREMENTS	<p>Regardless of age and citizenship, applicants holding at least one of the following academic qualifications can apply for admission:</p> <ul style="list-style-type: none"> – Laurea specialistica or Laurea magistrale (second cycle master's degree) – Laurea Vecchio Ordinamento (degree obtained under the previous Italian regulations); – Second cycle Master's degree obtained abroad, equivalent to the above mentioned Italian degrees and recognized as suitable for the admission to doctoral program <p>Undergraduate applicants may also submit applications with the obligation of getting their degree by October 31st 2021.</p>

POSITION PUT OUT TO COMPETITION	11	With Scholarship	9
		Reserved to employees of companies having an "Industrial Doctorate" arrangement	2
Position with Scholarship			
N°	Funding entity	Research Topic, if any	
3	Scholarship funded by University of Parma (Ministerial funds)	<ul style="list-style-type: none"> • Environmental • Biomolecular • Genetics and microbiology 	
1	Scholarship funded by University of Parma (University funds)	<ul style="list-style-type: none"> • Genetics and microbiology 	
1	Scholarship co-funded by Fondazione Cariparma	<ul style="list-style-type: none"> • Biomolecular 	



Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Competition notice)

During the Oral Exam, applicants may express and / or confirm their interest to the Examination Board in being assigned a scholarship dedicated to a specific research topic.. The Board will express its judgement on eligibility to be assigned the scholarship in consideration of the specific competences, experience and specific aptitudes of the applicants.

N°	Funding entity	BOUND RESEARCH TOPIC
2	Scholarship funded by Department of Chemistry, Life Sciences and Environmental Sustainability (funds of "Departments of Excellence" program)	<ul style="list-style-type: none"> • Biomolecular • Genetics and microbiology
1	Scholarship partly financed with UNIVERSITY funds and co-financed by the Department of Chemistry, Life Sciences and Environmental Sustainability	<ul style="list-style-type: none"> • Genetics and microbiology
1	Scholarship funded by Preclinics, Gesellschaft für präklinische Forschung mbH	<ul style="list-style-type: none"> • Biomolecular – Topic "Development of a platform for the design and construction of protein constructs, based on anti-tetanus immunity, for vaccination and therapeutic use. Single domain VHH antibodies (nanotubes) functionalized for the production of molecular tools to be used for diagnostic purposes"

Position reserved for "INDUSTRIAL DOCTORATE" (according to art. 2 paragraph 2, lett. e) of Ministerial Decree n. 45/2013)

N°	Company/Institution
1	Reserved to employees of Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia Romagna – IZSLER Specific Topic "Swine influenza viruses: genetic and antigenic evolution of influenza viruses circulating in porcine farms in Italy in a constantly evolving context"
1	Reserved to employees of NAICONS S.r.l.

ADMISSION PROCEDURES	Assessment of QUALIFICATIONS: up to 40 points (a minimum score of 18 points shall be required to be admitted to the Oral Exam) ORAL EXAM: up to 80 points Minimum score for ELIGIBILITY: 70/120
Foreign Language	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 reading and translating of a scientific text.
CANDIDATES ADMITTED TO THE ORAL TEXT CAN TAKE THE EXAM IN PRESENCE OR REMOTELY IN AUDIO AND VIDEO TELECONFERENCE (Candidates who intend to take the Oral Exam remotely must submit request, to this purpose, as per the model attached to the competition notice)	
THE INTERVIEW MAY BE HELD ALSO IN ENGLISH	
LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT	
MANDATORY DOCUMENTS TO BE ATTACHED TO THE ON-LINE APPLICATION	
ANNEX A	(art. 5 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. 4 of the Competition notice)	
Abstract of degree thesis	Abstract of the second cycle master's degree thesis. Undergraduate applicants must submit the draft of the thesis approved by their supervisor (abstract/draft of the thesis: 10.000 characters including spaces)	
Qualifications	Certificates and academic transcript of records for both Bachelor' and Master' degrees containing the following details for each degree held: (art. 4 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).	
FURTHER QUALIFICATIONS THAT MAY BE ATTACHED TO THE APPLICATION, IF IN POSSESSION OF THE APPLICANT (only qualifications attested by a document drawn up in Italian or in English)		
Scientific Publications	Articles on national and international journals, papers presented at conferences or symposia, book chapters and indexed national publications.	
Other Academic qualifications	First or second level Master's degree obtained in Italy and/or specialization degree in subjects consistent with the research topics of this PhD program	
Other experiences (training, work, research, teaching, etc.)	<ul style="list-style-type: none"> - Periods of study abroad, outside th country of origin (e.g. Erasmus programme or other similar mobility programmes) - Other qualifications attesting the suitability of the applicants (scholarships or research grants, awards, etc.) - Employment contracts at public and / or private research centers 	
EVALUATION CRITERIA		
QUALIFICATION	EVALUTATION CRITERIA	POINTS
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.	Up to 5 points
Graduation mark	Score related to the final mark: - 110 with honours (magna cum laude): 20 points; - 110: 18 points; - From 103 to 109: points 4-16 (2 points for each mark unit); - Until 102: 3 points.	Up to 20 points
Average of the exam marks (if the candidate will attain the degree no later than 31 October 2021)	Score related to the average of the exam marks: - 30/30: 18 points; - From 22/30 to 29/30: points 2-16 (2 points for each unit average score)	Up to 18 points
Graduation thesis	Consistency of the Master's Degree thesis with the doctoral program research topics (briefly describe the topics in the curriculum vitae)	Up to 6 points
Scientific publications	Publications in <i>peer-reviewed</i> international journals: 2 points for each publication (for evaluation purposes it is mandatory to attach a pdf copy of each publication to the application)	Up to 6 points



Communiations to conferences, publication in indexed national journals, book chapters		1 point for each conference abstract, publication in indexed national journals or book chapters (for evaluation purposes it is mandatory to attach a pdf copy of each term to the application)	Up to 3 points
ORAL EXAM		EVALUATION CRITERIA	POINTS
The ORAL EXAM includes the presentation of the research project and is intend to assess the suitability of the applicant to pursue scientific research as well as the general knowledge of issues connected to the PhD course		The Oral Exam will focus on critical reading and discussion of a scientific article chosen by the candidate among those proposed by the Committee within the each of the three main research topics. Candidates will be asked by the Committee members to discuss and explain the contents of the scientific publication they have selected. During this Oral Exam and interview, knowledge of the English language will also be evaluated.	Up to 80 points
SCHEDULE OF THE ADMISSION EXAMS			
ORAL EXAM	DATE	16 September 2021 (with possible extension in the following days)	
	TIME	09.00	
	PLACE	AULE (A/B, C e D) CASCINA AMBOLANA Parco Area delle 33/A – Campus Universitario 43124 PARMA - ITALY	
OTHER INFORMATION		The applicant MUST indicate in the application his/her preference for one of the three main research topics proposed in the selection announcement (Environmental, Genetics and microbiology, Biomolecular); the possible candidate's interest for one of the 'bound research topics' may also be specified, if applicable. For foreign candidates, admission examinations may be held in English as per candidate's request.	