







FOOD SCIENCE	
CYCLE	XXXVIII
COORDINATOR	Prof.ssa Chiara DALL'ASTA Food and Drug Department email: chiara.dallasta@unipr.it
DURATION	3 years
STARTING DATE OF THE PHD PROGRAM	01/11/2022
RESEARCH TOPICS (The candidate MUST mandatorily indicate one research topic in the form ANNEX A and submit a RESEARCH PROJECT in the relevant field)	
<ul style="list-style-type: none">• Development of new approaches to elucidate the metabolism of nutritionally relevant bioactive compounds• Study and characterization of innovative ingredients recovered from plant material, to be applied in novel food, through advanced chromatographic techniques and high resolution mass spectrometry• Antimicrobial resistance throughout the food chain• Microorganisms engineering for the production of metabolites of interest and transformation of molecules during fermentation processes• Criteria to select and use lactic acid bacteria to increase the sustainability, technological, nutritional, and functional properties of products and by-products throughout the agri-food chain.• Design and development of meat and dairy analogues using vegetable proteins from upcycled sources• Enzyme assisted extraction and modification of lignocellulosic biomasses for the production of functional oligosaccharides and other nutraceutical compounds• Switching Mediterranean consumers to Mediterranean sustainable healthy dietary patterns• Databases and analytical methods for nutritionally relevant plant bioactives and the food-microbiome-host interplay• Fertilizers from agri-food wastes for the intensification of sustainability in agriculture• Digital solutions for on-farm crop quality assessment• Innovative bioprocesses and extraction techniques of bioactive compounds from agricultural biomasses	
TRAINING OBJECTIVES	
The PhD candidates will acquire advanced theoretical and practical expertise to provide innovative approaches and methodologies in the agro-food sector, under a multidisciplinary perspective.	
ADMISSION REQUIREMENTS	Regardless of age and citizenship, applicants holding at least one of the following academic qualifications can apply for admission: <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 Undergraduates can also apply for admission to the selection, with the obligation to obtain the degree within the deadline set for enrollment, that is by 24.10.2022

POSITIONS PUT OUT TO COMPETITION	12	With Scholarship	12
Position with Scholarship			
N°	Funding entity	Research Topic	
3	Scholarship funded by University of Parma (Ministerial funds)	<ul style="list-style-type: none">• HUMAN NUTRITION• FOOD CHEMISTRY• FOOD INSPECTION	



1	Scholarship co-funded by Fondazione Cariparma	• FOOD MICROBIOLOGY
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 of being assigned a scholarship linked to a specific research topic. The Examination Board will evaluate their eligibility based on specific competences, experience and specific aptitudes of the applicants.		
N°	Funding entity	BOUND RESEARCH TOPIC
1	Scholarship funded by Food and Drug Department (funds Project "PRIMASWITCHtoHEALTHY")	• Switching Mediterranean consumers to Mediterranean sustainable healthy dietary patterns
1	Scholarship funded by Food and Drug Department (funds Project "FARE CARE-DIET")	• Databases and analytical methods for nutritionally relevant plant bioactives and the food-microbiome-host interplay
1	Scholarship partly financed with UNIVERSITY funds and co-financed by Food and Drug Department	• Design and development of meat and dairy analogues using vegetable proteins from upcycled sources
1	Scholarship funded by Food and Drug Department	• Enzyme assisted extraction and modification of lignocellulosic biomasses for the production of functional oligosaccharides and other nutraceutical compounds
1	Scholarship financed with funds under the PNRR– Mission 4 component 1 (Ministerial Decree 351/2022 art. 7 "PNRR Research") 	• Criteria to select and use lactic acid bacteria to increase the sustainability, technological, nutritional, and functional properties of products and by-products throughout the agri-food chain
1	Scholarship financed under the PNRR – Mission 4 component 2 – Investment 1.4 National Center for Agricultural Technologies AGRITECH 	• Fertilizers from agri-food wastes for the intensification of sustainability in agriculture
1	Scholarship financed under the PNRR – Mission 4 component 2 – Investment 1.4 National Center for Agricultural Technologies AGRITECH 	• Digital solutions for on-farm crop quality assessment
1	Scholarship financed under the PNRR – Mission 4 component 2 – Investment 1.4 National Center for Agricultural Technologies AGRITECH 	• Innovative bioprocesses and extraction techniques of bioactive compounds from agricultural biomasses

ADMISSION PROCEDURES	Assessment of QUALIFICATIONS: up to 30 points (a minimum score of 18 points shall be required to be admitted to the Oral Exam) ORAL EXAM: up to 90 points Minimum score for ELIGIBILITY: 70/120
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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 test. For foreign candidates, basic knowledge of ITALIAN LANGUAGE will also be assessed.
APPLICANTS ADMITTED TO THE ORAL EXAM CAN TAKE IT EITHER IN PRESENCE OR REMOTELY IN AUDIO AND VIDEO TELECONFERENCE	
(Applicants who intend to take the Oral Exam remotely must submit a formal request, using the form 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).
Research Project	The research project shall consist of a maximum of 2 pages, be written in Italian or in English, focused on an original research topic (unpublished, developed personally by the candidate. It should be noted that the Examination Board can use tools useful for verifying the originality of the submitted Project) concerning one of the specific topic indicated in this notice and it shall be structured as follows: introduction of the problem in the scientific context, significance of the problem, expected results, argumentation. <u>The research project does not represent a constraint with respect to the following choice of the doctoral thesis</u> , that shall be defined together with the supervisor and approved by the Academic Board.
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)	
Statement of Research interest	Short text – maximum 1 page – in Italian or in English, aimed at explaining the candidate's reasons to attend the PhD program and at describing her/his specific research interests
Scientific Publications	Articles and/or reviews in scientific journals with peer reviewing, scientific book chapters with national or international circulation. The explicit indication of the candidate's contribution to the works presented for evaluation is a necessary requirement.
Reference Letters	Maximum no. 1 letter written by experts in the research areas working in public or private research institutions. It must be sent directly by the signatory to the e-mail address: foodsciencephd@unipr.it The submission by the candidate himself will not be accepted.



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"> – Language proficiency certificates – Periods of study abroad, outside the country of origin (e.g. Erasmus programme or other similar mobility programmes) – Other qualifications attesting the suitability of the applicants (scholarships, awards, etc.) 	
EVALUATION CRITERIA		
QUALIFICATION	EVALUTATION CRITERIA	POINTS
Curriculum Vitae et studiorum	<p>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.</p> <p>The marks of the exams and the graduation mark and the consistency of the Master's Degree thesis with the doctoral program research topics will be the most relevant element of the evaluation.</p>	Up to 22 points
Statement of Research Interest	Originality and motivation to research	Up to 2 points
Scientific publications	International peer-reviewed papers: up to 2 points National peer-reviewed papers: up to 1 point Book chapters: up to 1 point	Up to 3 points
Reference Letters	Attestation of motivation and aptitude for the research	Up to 2 points
Other Academic qualifications	in subjects related to the research areas of the PhD course	Up to 1 point
Other experiences	Aptitude to research activity and congruence with the research topics and the objectives of the PhD course	Up to 2 points
The Research Project will be evaluated during the Oral Exam		
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	<ul style="list-style-type: none"> ○ English reading and speaking and for foreign candidates also Italian language: up to 10 points ○ research project presentation: max 50 points ○ general knowledge of issues connected to the PhD course: max 30 points 	Up to 90 points
SCHEDULE OF THE ADMISSION EXAMS		
ORAL EXAM	DATE	19 September 2022 (with possible extension in the following days)
	TIME	09:00 AM (Italian Time)
	PLACE	Food and Drug Department Parco Area delle Scienze, 27/A – Campus 43124 PARMA - ITALY
OTHER INFORMATION	For foreign candidates it is possible to carry out the admission examination exclusively in English, after checking the basic knowledge of ITALIAN LANGUAGE. For Italian candidates it will be possible to take the admission examination in Italian or in English at the candidate's choice.	