




FOOD SCIENCE	
CYCLE	XXXVII
COORDINATOR	Prof.ssa Chiara DALL'ASTA Food and Drug Department email: <a href="mailto:chiara.dallasta@unipr.it">chiara.dallasta@unipr.it</a>
DURATION	3 anni
STARTING DATE OF THE PHD PROGRAM	01/11/2021
PARTNER INSTITUTION FOR UNIVERSITY COOPERATION AGREEMENTS	<ul style="list-style-type: none"><li>• Universitat Rovira i Virgili (Spagna)</li><li>• Universidad Politécnica de Cartagena (Spagna)</li><li>• Universidad de Córdoba (Spagna)</li></ul>
<b>RESEARCH TOPICS</b> (The candidate <b>MUST mandatorily</b> indicate one research topic in the ANNEX A)	
<ol style="list-style-type: none"><li>1. Indigestible polysaccharides/oligosaccharides from different food sources: extraction, enzymatic hydrolysis and structural characterization</li><li>2. Using consumer science to improve healthy and sustainable eating behaviour</li><li>3. Metabolic phenotypes related to dietary (poly)phenols and their impact on cardiometabolic health</li><li>4. Bio-sustainable technologies to produce raw materials and food products with improved physico-chemical, nutritional and safety properties</li><li>5. Decreasing food allergenicity through process-induced tailored protein modification in legumes and alternative protein sources</li><li>6. The right to food and its dimensions as a basis to promote sustainable agrifood systems</li><li>7. Development of targeted / untargeted UHPLC-HRMS methods for the determination of quality in hazelnut and finished products of the confectionery industry</li><li>8. Computational approaches integrated to biomolecular technologies to study viral infections of food origin: virulence factors and identification of food components with potential antiviral activity</li><li>9. Establishing a strong and lasting international training network for innovation in food and juice industries: a 4D-research approach for fruit juice processing</li><li>10. Large-scale phenotyping using milk Fourier Transform Infrared Spectroscopy and factors affecting the accuracy of predictions</li><li>11. Development of welfare indicators for lactating cows at the slaughterhouse</li></ol>	
<b>TRAINING OBJECTIVES</b>	
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.	
<b>ADMISSION REQUIREMENTS</b>	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"><li>– Laurea specialistica or Laurea magistrale (second cycle master's degree)</li><li>– Laurea Vecchio Ordinamento (degree obtained under the previous Italian regulations);</li><li>– Second cycle Master's degree obtained abroad, equivalent to the above mentioned Italian degrees and recognized as suitable for the admission to doctoral program</li></ul> Undergraduate applicants may also submit applications with the obligation of getting their degree by <b>October 31<sup>st</sup> 2021</b> .



<b>POSITION PUT OUT TO COMPETITION</b>	<b>11</b>	With Scholarship	<b>8</b>
		Reserved to holders of scholarship within specific international mobility programs	<b>1</b>
		Reserved to holders of scholarship funded by foreign States	<b>1</b>
		Reserved to employees of companies having an "Industrial Doctorate" arrangement	<b>1</b>
<b>Position with Scholarship</b>			
<b>N°</b>	<b>Funding entity</b>		<b>Research Topic, if any</b>
<b>4</b>	Scholarship funded by University of Parma (Ministerial funds)		<ul style="list-style-type: none"> <li>• Food Chemistry</li> <li>• Consumer Science</li> <li>• Food Technology</li> <li>• Human Nutrition</li> </ul>
<b>1</b>	Scholarship co-funded by Fondazione Cariparma		<ul style="list-style-type: none"> <li>• Bioorganic Chemistry</li> </ul>
<b>Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Competition notice)</b>			
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.			
<b>N°</b>	<b>Funding entity</b>		<b>BOUND RESEARCH TOPIC</b>
<b>1</b>	Scholarship partly financed with UNIVERSITY funds and co-financed by the Department of Veterinary Science		<ul style="list-style-type: none"> <li>• Large-scale phenotyping using milk Fourier Transform Infrared Spectroscopy and factors affecting the accuracy of predictions</li> </ul>
<b>1</b>	Scholarship funded by Soremartec Italia S.p.A.		<ul style="list-style-type: none"> <li>• Development of targeted / untargeted UHPLC-HRMS methods for the determination of quality in hazelnut and finished products of the confectionery industry</li> </ul>
<b>1</b>	Scholarship funded by EMILIA ROMAGNA REGION  <b>The assignment of this scholarship is subject to the declaration of residence or domicile of the beneficiary in Emilia-Romagna</b>		<ul style="list-style-type: none"> <li>• Computational approaches integrated to biomolecular technologies to study viral infections of food origin: virulence factors and identification of food components with potential antiviral activity</li> </ul>
<b>Reserved to HOLDERS OF SCHOLARSHIP WITHIN SPECIFIC INTERNAZIONALE MOBILITY PROGRAMS</b>			
<b>N°</b>	<b>Agreements/Cooperations/Mobility Programs</b>		
<b>1</b>	Reserved to holders under the PROJECT UE H2020 – MSCA ITN "Innovation Training Networks" INT-ETN HiStabJuice project 956257		
<b>Position reserved to HOLDERS OF SCHOLARSHIP FUNDED BY FOREIGN STATES</b>			
<b>N°</b>	<b>University or Foreign State</b>		
<b>1</b>	Reserved to holders or with equivalent financial support within the RESEARCH PROJECT of FAO Chile Food Systems Consultant ""The right to food and its dimensions as a basis to promote sustainable agrifood systems""		
<b>Position reserved for "INDUSTRIAL DOCTORATE" (according to art. 2 paragraph 2, lett. e) of Ministerial Decree n. 45/2013)</b>			
<b>N°</b>	<b>Company/Institution</b>		
<b>1</b>	Reserved to employees of Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia Romagna – IZSLER Specific Topic: "Welfare indicators for farmed dairy cows and their collection in slaughterhouses"		



<b>ADMISSION PROCEDURES</b>	<b>Assessment of QUALIFICATIONS:</b> up to 30 points (a minimum score of 18 points shall be required to be admitted to the Oral Exam) <b>ORAL EXAM:</b> up to 90 points <b>Minimum score for ELIGIBILITY:</b> 70/120
<b>ADMISSION PROCEDURES for positions reserved to holders of scholarship funded by foreign States and/or scholarship holders within specific international mobility programs</b>	<b>Assessment of QUALIFICATIONS:</b> up to 120 points  <b>Minimum score for ELIGIBILITY:</b> 70/120
<b>Foreign Language</b>	Language the fluency of which shall be assessed during the Oral Exam: <b>ENGLISH</b> . 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.
<p style="text-align: center;"><b>CANDIDATES ADMITTED TO THE ORAL TEXT CAN TAKE THE EXAM IN PRESENCE OR REMOTELY IN AUDIO AND VIDEO TELECONFERENCE</b></p> <p style="text-align: center;">(Candidates who intend to take the Oral Exam remotely must submit request, to this purpose, as per the model attached to the competition notice)</p>	
<b>THE INTERVIEW MAY BE HELD ALSO IN ENGLISH</b>	
<b>LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT</b>	
<b>MANDATORY DOCUMENTS TO BE ATTACHED TO THE ON-LINE APPLICATION</b>	
<b>ANNEX A</b>	(art. 5 of the Competition notice)
<b>Identification Document</b>	Scanned Copy of a valid identity document with photo (i.e. identity card, passport)
<b>Curriculum Vitae et studiorum</b>	No specific CV format is required (see art. 4 of the Competition notice)
<b>Abstract of degree thesis</b>	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)
<b>Qualifications</b>	<b>Certificates and academic transcript of records for both Bachelor' and Master' degrees</b> 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).
<b>Research Project</b>	The research project shall consist of a maximum of 2 pages, be written in Italian or in English, focused on an original research topic ( <b>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</b> ) 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)

<b>Statement of Research interest</b>	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
<b>Scientific Publications</b>	Articles and/or reviews in scientific journals with peer reviewing, scientific book chapters with national or international circulation
<b>Reference Letters</b>	Maximum no. 1 letter written by professors or researchers or experts in the research areas working in public or private research institutions
<b>Other Academic qualifications</b>	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
<b>Other experiences (training, work, research, teaching, etc.)</b>	<ul style="list-style-type: none"> <li>– Language proficiency certificates</li> <li>– Periods of study abroad, outside the country of origin (e.g. Erasmus programme or other similar mobility programmes)</li> <li>– Other qualifications attesting the suitability of the applicants (scholarships, awards, etc.)</li> </ul>

### EVALUATION CRITERIA

QUALIFICATION	EVALUTATION CRITERIA	POINTS
<b>Curriculum Vitae et studiorum</b>	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. Voting examinations and graduation marks will be the most relevant element of the evaluation.	<b>Up to 20 points</b>
<b>Graduation thesis</b>	Consistency of the Master's Degree thesis with the doctoral program research topics (briefly describe the topics in the curriculum vitae)	<b>Up to 4 points</b>
<b>Statement of Research Interest</b>	Originality and research attitude	<b>Up to 2 points</b>
<b>Scientific publications</b>	International peer-reviewed papers: up to 2 points National peer-reviewed papers: up to 1 point Book chapters: up to 1 point	<b>Up to 3 points</b>
<b>Reference Letters</b>	Motivation and research attitude	<b>Up to 1 point</b>

### 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 intended 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"> <li>○ English reading and speaking and for foreign candidates also Italian language: up to 10 points</li> <li>○ ability to argue on the interpretation of the scientific</li> <li>○ impact of the research described in the original proposal: up to 50 points</li> <li>○ expertise in the specific research field: up to 30 points</li> </ul>	<b>Up to 90 points</b>

### LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT

**Positions reserved to holders of scholarship funded by Foreign States or Reserved to holders of scholarship within specific international mobility programs**

<b>Curriculum Vitae et studiorum</b>	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. Voting examinations and graduation marks will be the most relevant element of the evaluation.	<b>Up to 36 points</b>
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<b>Research Project</b>	Congruence with the program research proposed and with the research topics of the PhD course. Clarity of objectives and definition of success indicators. Implementation and sustainability of the feasibility plan	<b>Up to 70 points</b>
<b>Statement of Research Interest</b>	Originality and research attitude	<b>Up to 10 points</b>
<b>Scientific Publications</b>	International peer-reviewed papers: up to 2 points National peer-reviewed papers: up to 1 point Book chapters: up to 1 point	<b>Up to 3 points</b>
<b>Reference Letters</b>	Motivation and research attitude	<b>Up to 1 point</b>
<b>SCHEDULE OF THE ADMISSION EXAMS</b>		
<b>ORAL EXAM</b>	<b>DATE</b>	13 September 2021 (with possible extension to 16 September 2021)
	<b>TIME</b>	09:00 am (Italian time)
	<b>PLACE</b>	Food and Drug Department Parco Area delle Scienze, 27/A – Campus 43124 PARMA - ITALY
<b>OTHER INFORMATION</b>	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.	