



| FOOD SCIENCE   |  |
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| Cycle  | XXXIV  |
| Coordinator  | Prof. Furio BRIGHENTI<br>Food and Drug Department<br>email: <a href="mailto:furio.brighenti@unipr.it">furio.brighenti@unipr.it</a> |
| Duration   | 3 years  |
| Starting date of the PdD programme   | 01/11/2018   |
| <b>Research Topics</b>   |  |
| <ul style="list-style-type: none"><li>• Bioactive compounds from lactic acid bacteria: beneficial effects of fermented foods</li><li>• Lactic acid fermentation as a strategy to produce high-value compounds from plant matrices</li><li>• Investigating biomarkers of polyphenol intake: a metabolomics approach</li><li>• In silico methods for discovering endocrine disruptors in food</li><li>• Antibiotic resistance in Pig-based value chains</li><li>• A 3D Databank for the control of food-contact materials using nuclear receptors (ER and AR) as biological tumour markers</li><li>• Enhancing the value of food by-products through insects farming: extraction, characterization, properties and potential applications of lipids, proteins and chitin</li><li>• Food habits, diet quality and body composition: innovative approaches</li></ul> |  |
| <b>Training Objectives</b>   |  |
| Gaining high theoretical and experimental competence to answer innovation needs in the field of food sciences, with particular focus on mastering interdisciplinary topics (food chemistry, food microbiology, food technologies, human nutrition and food safety).  |  |
| <b>Admission requirements</b>  |  |
| Applicants who have one of the following degrees may participate in the selection: <ul style="list-style-type: none"><li>- Laurea specialistica or Laurea magistrale (second cycle degree)</li><li>- Laurea Vecchio Ordinamento (degree obtained under the Italian previous regulations);</li><li>- an academic Master's degree obtained abroad, comparable to the above mentioned Italian degrees and recognized as suitable for the admission to doctoral programmes.</li></ul> Undergraduate applicants may also submit applications with the obligation of getting their degree by <b>October 31<sup>st</sup> 2018</b> .   |  |
| <b>POSITIONS PUT OUT TO COMPETITION</b>  |  |
| With Scholarship   | 7  |
| Reserved to employees of companies having a "Industrial Doctorate" arrangement   | 1  |
| <b>TOTAL</b>   | <b>8</b>   |



| Positions with University Scholarship   |   |   |
|---|---|---|
| N°  | Funding entity  | Research Topic  |
| 4   | Scholarship Ministerial funds   | <ul style="list-style-type: none"> <li>– Food microbiology</li> <li>– Food microbiology &amp; Food Chemistry</li> <li>– Human Nutrition</li> <li>– Chemistry</li> </ul>   |
| 1   | Scholarship co-funded by Fondazione Cariparma   | <ul style="list-style-type: none"> <li>– Animal Food Inspection</li> </ul>  |
| Position with Scholarship LINKED TO SPECIFIC TOPICS (art. 11 of the Call for applications)  |   |   |
| <p>During the Oral Exam, applicants may express their interest in being assigned a scholarship dedicated to a specific research topic to the Examination Board. 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.</p> |   |   |
| N°  | Funding entity  | BOUND RESEARCH TOPIC  |
| 1   | Funded by EMILIA ROMAGNA REGION   | <ul style="list-style-type: none"> <li>– BIG DATA: "A 3D Databank for the control of food-contact materials using nuclear receptors (ER and AR) as biological tumour markers"</li> </ul>  |
| 1   | Funded by EMILIA ROMAGNA REGION   | <ul style="list-style-type: none"> <li>– ORGANIC &amp; FOOD CHEMISTRY: "Enhancing the value of food by-products through insects farming: extraction, characterization, properties and potential applications of lipids, proteins and chitin"</li> </ul> |
| Position reserved according to art. 2 paragraph 2, lett. e) of Ministerial Decree n. 45/2013 (Industrial Doctorate)   |   |   |
| N°  | Company/Institution   |   |
| 1   | Reserved to employees of Azienda USL – IRCCS di Reggio Emilia   |   |
| ADMISSION PROCEDURES  |   |   |
| <p><b>Assessment of QUALIFICATIONS:</b> up to 30 points<br/> <b>ORALE EXAM:</b> up to 90 points<br/> <b>Minimum score for ELIGIBILITY:</b> 70/120</p>   |   |   |
| <b>Foreign Language</b>   | <p>Language the fluency of which shall be assessed during the Oral Exam:<br/> <b>ENGLISH.</b><br/>           The evaluation of the knowledge of this language will be oral and will consist in reading and translating and commentary of a scientific text.</p> |   |
| <b>Possibility of videoconference for candidates residing or temporarily abroad</b>   |   | <b>NO</b>   |
| LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT   |   |   |
| Mandatory documents to be attached to the on-line application   |   |   |
| <ul style="list-style-type: none"> <li>– ANNEX A (art. 5 of the Call for Applications)</li> <li>– Scanned Copy of a <b>valid identification document</b> with photo</li> <li>– <b>Curriculum Vitae et studiorum</b> (art. 4 of the Call for Applications)</li> </ul>  |   |   |



- **Abstract of the second cycle master's degree thesis.** Undergraduate applicants may submit the draft of the thesis approved by their supervisor (10.000 characters including spaces)
- **Certificates and academic transcript of records for both the Bachelor' and the Master' degrees** containing the following details for each degree held: (art. 4 of the Call for Applications):
  - University that granted the degree
  - Type of degree (first cycle/second cycle/single cycle)
  - Name of the degree programme
  - 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 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 and at describing the specific research interests;
- **Scientific Publications:** Articles on national and international journals, papers presented at conferences or symposia, book chapters, abstracts of papers or posters presented at conventions or international meetings;
- **Reference Letters:** A maximum of 2 written by professors or researchers at the University of origin of the candidate or from other universities or from experts in the research areas working in public or private research facilities;
- **Academic qualifications:** other Master's and/or specialization degree in subjects consistent with the research topics of this PhD programme
- **Mobility experience abroad** (e.g. Erasmus or similar);
- **Any other document** certifying the applicant's training and abilities (grants, awards, etc.)

**EVALUATION CRITERIA**

| QUALIFICATION  | EVALUTATION CRITERIA   | POINTS                |
|--|--|-----------------------|
| <b>Curriculum Vitae et studiorum</b>   | Including academic career and postgraduate experience (exaple grants, awards, mobility experience abroad, specialization degree) 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 | <b>Up to 8 points</b> |
| <b>Graduation mark</b>   | Score related to the final mark:<br>- 110 with honours (magna cum laude): 4 points;<br>- 110: 3 points;<br>- From 105 to 109: 2 points;<br>- From 99 to 104: 1 point;<br>- Under 99: 0 points  | <b>Up to 4 points</b> |
| <b>Average of the exam marks</b> (if the candidate will attain the degree no later than 31 October 2018) | Score related to the average of the exam marks:<br>- 30/30: 4 points;<br>- From 28/30 to 29.9/30: 3 points;<br>- From 26/30 to 27.9/30: 2 points;<br>- From 24/30 to 25.9/30: 1 point;   | <b>Up to 4 points</b> |



|   |  |                        |
|---|--|------------------------|
| <b>Graduation thesis</b>  | Consistency of the thesis subject with the training objectives of the PhD program  | <b>Up to 4 points</b>  |
| <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 and at describing the specific research interests  | <b>Up to 5 points</b>  |
| <b>Scientific Publications</b>  | Articles on national and international journals, papers presented at conferences or symposia, book chapters, abstracts of papers or posters presented at conventions or international meetings   | <b>Up to 7 points</b>  |
| <b>Reference Letters</b>  | A maximum of 2 written by professors or researchers at the University of origin of the candidate or from other universities or from experts in the research areas working in public or private research facilities   | <b>Up to 2 points</b>  |
| <b>ORAL EXAMINATION</b>   | <b>EVALUATION CRITERIA</b>   | <b>POINTS</b>          |
| The ORAL EXAM consist in:<br>1)critical reading of a scientific publication chosen among those proposed by the Commission within the chosen research themes;<br>2)subsequent interview on the contents of the scientific publication chosen by each candidate | <ul style="list-style-type: none"> <li>○ knowledge of the written and oral foreign language: points 30</li> <li>○ ability to argue on the interpretation of the scientific impact of the research described in the text: points 20</li> <li>○ critical capacity in identifying the strengths and weaknesses of the research described in the text: points 20</li> <li>○ ability to identify future research prospects opened by the research described in the text: points 20</li> </ul> | <b>Up to 90 points</b> |
| <b>SCHEDULE OF THE ADMISSION EXAMS</b>  |  |                        |
| <b>ORAL EXAM</b>  | <b>ORAL EXAM DATE:</b> 17 September 2018<br><b>TIME:</b> 10:00am<br><b>PLACE:</b> ROOM A – Didactic Center of Food and Drug Department (Padiglione 19 Food Project of the University)<br>Parco Area delle Scienze, 47/A – 43124 PARMA - ITALY  |                        |
| <b>OTHER INFORMATION</b>  | For foreign candidates it is possible to carry out the admission examination exclusively in English. For Italian candidates it will be possible to take the admission examination in Italian or in English at the candidate's choice.  |                        |