### DOCTORAL PROGRAMME IN CHEMICAL SCIENCES

Director prof. Anna Maria Papini

**XXXVIII cycle – academic year 2023/2024**

<table>
<thead>
<tr>
<th>SCIENTIFIC AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ADMINISTRATIVE OFFICE</strong></td>
</tr>
</tbody>
</table>
| **CURRICULA** | 1. Chemistry  
2. Science for the Conservation of Cultural Heritage |

<table>
<thead>
<tr>
<th>POSITIONS AVAILABLE: 12</th>
</tr>
</thead>
</table>
| Positions with Scholarship: 12  
Positions without Scholarship: *not available* |

<table>
<thead>
<tr>
<th>RANKING LIST FOR STANDARD POSITIONS SCHOLARSHIPS AVAILABLE: 8</th>
</tr>
</thead>
</table>
| 6 – University of Florence  
2 – Department of Chemistry “Ugo Schiff” (DICUS)  
Progetto Ministeriale "Dipartimenti di Eccellenza 2023-2027" (S8503_DIPECC_23_27 CUP B97G22000740001) |

<table>
<thead>
<tr>
<th>RANKING LISTS FOR POSITIONS WITH SPECIFIC RESEARCH TOPICS SCHOLARSHIPS AVAILABLE: 4</th>
</tr>
</thead>
</table>
| 1 - Department of Chemistry “Ugo Schiff” (DICUS)  
**Thematic:** Green reconversion of plastic waste, residual biomass, composites and leather, through chemical, thermochemical and enzymatic processes.  
funded by project ROSI-CRF-RICERCATORIAFIRENZE A Second life for waste plastics and residual biomasses - C.U.P. B99J21021900007 |

1 – Department of Chemistry “Ugo Schiff” (DICUS) and Department of Neuroscience, Psychology, Drug Research and Child Health (NEUROFARBA)  
**Thematic:** Rational design and synthesis of "peptide nucleic acids" and ligands for targeting and modulation of hybrid nucleic acid structures.  
funded by the following projects:  
- ESPIKEMREGIONEPAPINI17 “Sviluppo di nuovi peptidi per applicazioni cosmeceutiche” (DICUS)  
- Istituto di Cristallografia – CNR Bari - PAPINIFIS18 “Ricerca e sviluppo di metodi di sintesi ed analisi di peptidi aventi interesse farmaceutico e di eventuali relativi building blocks amminoacidici” (DICUS)  
- SUPURAN_FISR2019 “Le Anidrasi Carboniche batteriche come Bersagli farmacologici - verso una nuova generazione di farmaci antibatterici”  
CUP B14G19000110008 (NEUROFARBA)  
- CONVROVE223 “Sviluppo sperimentale di nuovi peptidi funzionalizzanti”  
CUP B13C22002770007 (NEUROFARBA) |
<table>
<thead>
<tr>
<th><strong>STUDY/RESEARCH PERIODS ABROAD</strong></th>
<th>3-6 months</th>
</tr>
</thead>
</table>

### DOCUMENTS REQUIRED FOR THE ADMISSION (under penalty of exclusion)

- Copy of the Identification Document
- Self-declaration for qualifications obtained in Italy (laurea Triennale, Specialistica o Magistrale o ciclo unico) with a list of all exams taken and their marks, title of the thesis and graduation mark (download the form [here](#), make sure you fill in all the fields)
- Qualifications obtained abroad (Bachelor’s and Master Degrees or combined cycle Degree) with a list of all exams taken, number of credits, and their marks, title of the thesis and graduation mark.

*The same documentation except for the final mark must be submitted by those who will graduate within the 31/10/2023*

### DOCUMENTS REQUIRED FOR THE EVALUATION

#### MANDATORY

- Curriculum vitae et studiorum including a typewritten self-declaration for each qualification obtained (bachelor and master, or combined cycle degree) reporting the date of first enrollment, exams passed with number of credits, weighted and arithmetic average of the marks
- Research project
- Title and extended abstract of the M.Sc. thesis (maximum five A4 sheets)

#### OPTIONAL

- List of scientific publications
- List of qualification documents including periods spent abroad for study or research mobilities
- Up to a maximum of two reference letters

### RESEARCH PROJECT

The research project shall be written in English in no more than 12,000 characters including spaces, including abstract (no more than 500 characters including spaces), introduction and references, in order to assess the
The candidate can apply for several rankings by submitting a specific research project for each ranking (clearly state the reference to the chosen thematic).

**INTERVIEW MODE**

In person

The interview can be conducted in English language. If it is presented in Italian, the interview shall include an assessment of English language proficiency.

<table>
<thead>
<tr>
<th>parameter</th>
<th>minimum score</th>
<th>maximum score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum vitae et studiorum, research project, publications, other qualification documents</td>
<td>40/120</td>
<td>60/120</td>
</tr>
</tbody>
</table>

Applicants who obtain a mark of at least 40/120 in the evaluation of the above parameters will be admitted to the interview

<table>
<thead>
<tr>
<th>parameter</th>
<th>minimum score</th>
<th>maximum score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interview: discussion of the research project, publications and qualification documents</td>
<td>40/120</td>
<td>60/120</td>
</tr>
</tbody>
</table>

Eligibility is achieved with a minimum score of 80/120

**FURTHER INFORMATION ON THE EXAMINATION**

The interview will be focused on the research project. The discussion with the committee members will be based on the scientific background of the candidate also in the field of the research project performed for the Bachelor and Master thesis or for equivalent titles. The research project must be presented by maximum 8 slides.

Further information available at the following web page: [https://www.dottoratoscienzechimiche.unifi.it/index.html?newlang=eng](https://www.dottoratoscienzechimiche.unifi.it/index.html?newlang=eng)

**EXAMINATION SCHEDULE**

<table>
<thead>
<tr>
<th>DATE</th>
<th>TIME</th>
<th>PLACE</th>
</tr>
</thead>
</table>
| July 11th 2023 | 8:30 a.m. | Biblioteca Parrini  
Via della Lastruccia, 13  
Sesto Fiorentino |

The list of candidates admitted to the interview and the final ranking will be published at the following web page: [https://www.unifi.it/p12341.html](https://www.unifi.it/p12341.html)