Professional Work Experience and Research in Molecular Pathology

Code: 42899
ECTS Credits: 9

2024/2025

Degree	Type	Year
4313794 Biochemistry, Molecular Biology and Biomedicine	OT	0

Contact

Name: Francesca Canalias Reverter

Email: francesca.canalias@uab.cat

Teaching groups languages

You can view this information at the end of this document.

Prerequisites

1) Having the diploma or degree, preferably in the field of Life Sciences and Health (Biomedicine, Biochemistry, Genetics, Medicine, Veterinary Medicine, Pharmacy, etc).
2) Good level of Catalan or Spanish and English.

Objectives and Contextualisation

To learn through practice how to work in a professional environment, promoting proactive enterprising in the field of Molecular Pathology and more generically in the field of Biomedicine

Competences

- Analyse and explain normal morphology and physiological processes and their alterations at the molecular level using the scientific method.
- Analyse research results to obtain new biotechnological or biomedical products to be transferred to society.
- Communicate and justify conclusions clearly and unambiguously to both specialist and non-specialist audiences.
- Conceive, design, develop and synthesise scientific and/or biotechnological projects within biochemistry, molecular biology or biomedicine.
- Continue the learning process, to a large extent autonomously.
- Develop critical reasoning within the subject area and in relation to the scientific or business context.
- Integrate knowledge and use it to make judgements in complex situations, with incomplete information, while keeping in mind social and ethical responsibilities.
- Solve problems in new or little-known situations within broader (or multidisciplinary) contexts related to the field of study.
- Use acquired knowledge as a basis for originality in the application of ideas, often in a research context.
- Use and manage bibliography and IT resources related to biochemistry, molecular biology or biomedicine.
- Use scientific terminology to account for research results and present these orally and in writing.
- Work individually and in teams in a multidisciplinary context.

Learning Outcomes

1. Analyse research results to obtain new biotechnological or biomedical products to be transferred to society.
2. Communicate and justify conclusions clearly and unambiguously to both specialist and non-specialist audiences.
3. Continue the learning process, to a large extent autonomously.
4. Design and conduct a research project or professional practice project in biochemistry, molecular biology or biomedicine.
5. Develop and apply knowledge of the molecular mechanisms of normal physiological processes in human beings and of molecular alterations in disease within a real R+D+I project or a production process at a public or private organisation.
6. Develop critical reasoning within the subject area and in relation to the scientific or business context.
7. Integrate knowledge and use it to make judgements in complex situations, with incomplete information, while keeping in mind social and ethical responsibilities.
8. Solve problems in new or little-known situations within broader (or multidisciplinary) contexts related to the field of study.
9. Use acquired knowledge as a basis for originality in the application of ideas, often in a research context.
10. Use and manage bibliography and IT resources related to biochemistry, molecular biology or biomedicine.
11. Use scientific terminology to account for research results and present these orally and in writing.
12. Work individually and in teams in a multidisciplinary context.

Content

Stay in a public research or health center or a private company, performing tasks in the field of Molecular Pathology, in order to increase their capacity in proffesional or reserach applications of Biochemistry and Molecular Biology.

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Supervised			
Practice stay	200	8	1, 6, 5, 4, 7, 8, 2, 3, 9, 12, 10, 11
Type: Autonomous			
Practice report elaboration	24	0.96	1, 6, 5, 7, 8, 2, 3, 9, 12, 10, 11

Completion of practical activities according to a training project. Reading of scientific articles. Tutorials. Presentation and discussion of results. Preparation and oral presentation of the practice report. It consists of 200 hours of supervised practices and 24 hours of independent work.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Assessment

Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Oral presentation	35 %	1	0.04	1, 6, 7, 8, 2, 12, 11
Practice report	35 %	0	0	1, 6, 5, 4, 7, 8, 2, 3, 9, 12, 10, 11
Report of the person in charge of the stay or the academic tutor	30 %	0	0	1, 6, 5, 4, 7, 8, 2, 3, 9, 12, 10, 11

The practices report and the oral presentation will have the characteristics specified in the Teaching Guide of the Master's Degree Work (TFM) (see the section on "contents"), since this memory and its defense are used to evaluate the two modules.

In order to be evaluated, it is necessary that the coordinator of the module receives the confidential report of the person in charge of the stay and the report of practices developed by the student, within the deadline previously established by the coordinator. In addition, the student will have to make the oral presentation of the research project. In case of not fulfilling any of these requirements, the module qualification will be "NOT EVALUABLE".

Important: Total or partial plagiarism from any other source in the practices report delivered will automatically be considered as a fail of the module.

This module does not provide for the single assessment system.

Bibliography

The reference bibliography will be the one indicated in each one of the modules of the Master that are taken, plus that specific of the subject of the professional or research practices that are realized.

Software

Software will include that of each Master module taken by the student plus that specific of the topic chosen for the professional and research practice internship

Language list

Information on the teaching languages can be checked on the CONTENTS section of the guide.