



## ERASMUS+ TRAINEESHIP / PLACEMENT OFFER

**Project title:** Protein Misfolding in Metabolic Disorders

**Project description:**

Inborn errors of metabolism, although individually rare, are collectively quite numerous, and comprise a class of genetic diseases which affect genes coding for enzymes involved in different cellular pathways. For most of these disorders a clear relation between genotype and phenotype is still poorly understood, and most interesting is the fact that a modification in a single protein residue results in rather diverse cellular and clinical effects.

Our research aims to investigate pathological mechanisms underlying metabolic disorders such as Glutaric Acidurias type I and II. In particular, ongoing projects propose to clarify on the relation between the type of protein folding defect in disease-related variants and symptoms onset and progression.

The student will be integrated in the ongoing projects that combine different approaches from in-vitro studies on enzyme folding and function along with cellular studies and metabolomics analysis in patient-derived cells. Specifically, the student will have the opportunity to: i) perform heterologous expression and purification of human mitochondrial proteins; ii) use biophysical and biochemical methods to characterize protein structure, folding and function (CD, Fluorescence); iii) use patient-derived cells and isolated mitochondria for functional and viability assays.

Group webpage: <http://folding.campus.ciencias.ulisboa.pt/>

**Department:** Chemistry and Biochemistry

**R&D Unit:** BioSystems and Integrative Sciences Institute

**Field of study:** Biochemistry and Biophysics

**Supervisor:** Bárbara J. Henriques

**Personal webpage:** ciencias.ulisboa.pt/pt/perfil/bjhenriques

**Number of weeks offered:** 4-16

**Within the months:** from January to December

**Number of working hours per week:** 35

**Publication date:** 28 / 10 / 2019


**Closing date:** 31 / 12 / 2020

### Requirements

**General:**

- A very good academic record;
- Good writing and presentation skills;
- Good social and organisational skills;
- Very good proficiency in spoken and written English; knowledge of Portuguese language is an asset.

**Specific:**

- Level of education: Bachelor's or Master's degree in Biochemistry, Biology, Biotechnology, Biomedicine or ;
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### Applications

**Applications should include the following information:**

- a cover letter, including a description of your research interests and an explanation for why you are applying for this project;
- a curriculum vitae (CV);
- an official transcript of grades issued by your home institution;

and be submitted no later than 31 / 12 / 2020 via email to [internacional@ciencias.ulisboa.pt](mailto:internacional@ciencias.ulisboa.pt).

### Contacts

For inquiries regarding this project you are welcome to contact: bjhenriques @ciencias.ulisboa.pt.

For inquiries regarding the application procedure you are welcome to contact: [internacional@ciencias.ulisboa.pt](mailto:internacional@ciencias.ulisboa.pt).