



TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

ID CODE 4724

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at **Dipartimento di Scienze Farmacologiche e Biomolecolari**

Scientist- in - charge: Prof. Alessandra Polissi

Elisabete Cristina Cardoso Mendes Moura

CURRICULUM VITAE

PERSONAL INFORMATION

Surname	Cardoso Mendes Moura
Name	Elisabete Cristina
Date of birth	07/05/1990

PRESENT OCCUPATION

Appointment	Structure
Marie-Curie Early Stage Researcher (to be concluded in 2020)	Dipartimento di Scienze Farmacologiche e Biomolecolari, Università degli Studi di Milano

EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
Degree	MSc in Pharmaceutical Sciences (final mark 14/20)	Faculty of Pharmacy, University of Porto (Portugal)	2015
PhD	Ph.D. in Molecular and Cellular Biology - Marie Curie ITN fellowship (grant #721484)	Dipartimento di Scienze Farmacologiche e Biomolecolari, Università degli Studi di Milano (Italy)	To be concluded in 2020
Other	Erasmus Traineeship	Department of Membrane Biochemistry and Biophysics, Utrecht University (The Netherlands)	10/02/2014 - 30/09/2014

FOREIGN LANGUAGES

Languages	level of knowledge
Portuguese	Mother tongue



English	Proficient user
Italian	Basic user
French	Basic user

AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2017-2020	Marie Skłodowska-Curie Early-Stage Researcher PhD Studentship (grant #721484)

TRAINING OR RESEARCH ACTIVITY

<ul style="list-style-type: none">• Molecular biology and microbiology techniques mastered as a Marie-Curie Early Stage Researcher: competent cells preparation, transformation using heat shock/electroporation, transduction, molecular cloning, mutant construction and phenotypic analysis, bacterial cell culture, protein expression, membrane protein solubilization and purification, protein electrophoresis, western blot, UV photo-crosslinking, MIC (minimal inhibitory concentration) assays, checkerboard synergy assays.• Trainee in research (Erasmus programme, 02/2014 - 09/2014) at the Department of Membrane Biochemistry and Biophysics, Utrecht University. Research work in the fields of molecular biology and microbiology through the development of a protocol for the purification of the <i>Bacillus subtilis</i> MraY using the styrene-maleic acid (SMA) copolymer and study of the functionality of the protein in SMALPs (SMA lipid particles). Other molecular biology techniques learnt: FPLC, protein quantification in gel, micro BCA assay, thin layer chromatography and fluorescence assays for functionality studies, bligh-dyer lipid extraction, rouser phosphate determination.• Trainee in research (IPSF Student Exchange Programme, 13/08/2012 - 31/08/2012) at the Medical University of Gdansk. Research work involving preparation and analysis of blood samples resorting to techniques such as SPE (solid-phase extraction) and HPLC.• Volunteer researcher (09/2009 - 09/2013) at the Laboratory of Applied Chemistry of the Faculty of Pharmacy, University of Porto. Development of research activities in the field of potentiometry and chemiluminescence.

PROJECT ACTIVITY

Year	Project
2017-2020	Ph.D. thesis project “Targeting the lipopolysaccharide transport to develop novel antimicrobial drugs” under the Marie Curie ITN Train2Target (grant agreement #721484). Research focused on the functional characterisation of the bacterial lipopolysaccharide transport machinery and on setting up genetic screens to identify compounds inhibiting the assembly of this machinery.
02/2014 - 09/2014	Erasmus research project “Development of a protocol for the purification of the bacterial membrane enzyme MraY using the polymer styrene-maleic acid (SMA)”.
2012/2013	“Viability study of the use of molecularly imprinted polymers as electroactive species for the preparation of potentiometric sensors”. Project developed under the subject Project I (8 ECTS) of the MSc in Pharmaceutical Sciences.



CONGRESSES AND SEMINARS

Date	Title	Place
13/07/2020 - 14/07/2020	2020 FASEB online conference: Microbial Glycobiology	n/a
08/09/2019 - 11/09/2019	14 th International Symposium on the "Genetics of Industrial Microorganisms". <u>Oral communication</u> : "Setting up <i>in vivo</i> screening of inhibitors of the <i>E. coli</i> Lipopolysaccharide transport (Lpt) system assembly".	Pisa, Italy
10/07/2019 - 13/07/2019	EMBL Symposium on "New Approaches and Concepts in Microbiology". Poster presentation: "Adapting a bacterial two-hybrid system to screen <i>in vivo</i> for compounds inhibiting the <i>E. coli</i> Lpt machinery assembly".	Heidelberg, Germany
19/06/2019 - 22/06/2019	XXXIII SIMGBM Congress Poster presentation: "A bacterial two-hybrid system adapted for the <i>in vivo</i> screening of inhibitors of the <i>E. coli</i> Lipopolysaccharide transport (Lpt) system assembly".	Florence, Italy
19/03/2018 - 21/03/2018	"Challenges and new concepts in antibiotic research" conference at the Institute Pasteur. Poster presentation: "Dissecting the function of LptC, the membrane-tethered periplasmic subunit of the ABC transporter involved in LPS trafficking in <i>Escherichia coli</i> ".	Paris, France
13/02/2013 - 15/02/2013	6 th Meeting of Young Researchers at University of Porto <u>Oral communication</u> : "Development of ibuprofen selective electrode based on molecularly imprinted polymer".	Porto, Portugal
10/11/2010 - 12/11/2010	16 th Luso-Galician Chemistry Meeting Poster presentation: "Chemiluminometric detection applied to analysis of paracetamol".	Aveiro, Portugal
12/06/2019	Seminar attended "Synthetic Biology of Bacterial Outer Membrane Vesicles (OMVs) for the Production of Vaccines Against Infectious Diseases and Cancer"	Milan, Italy
29/04/2019	Webinar by the Train2Target ITN: "Research Integrity"	n/a
05/02/2018	Webinar by the Train2Target ITN: "Envelope biogenesis (and protection)"	n/a
13/10/2017	Seminar attended "Time resolved studies of protein structures, the biochemist point of view"	Milan, Italy

PUBLICATIONS

Articles in international journals
<ul style="list-style-type: none"> Moura ECCM, Baeta T, Romanelli A, Laguri C, Martorana AM, Erba E, Simorre JP, Sperandeo P, Polissi A. (2020) Thanatin Impairs Lipopolysaccharide Transport Complex Assembly by Targeting LptC-LptA Interaction and Decreasing LptA Stability. <i>Front. Microbiol.</i> 11:909. https://doi.org/10.3389/fmicb.2020.00909 Liu Y, Moura ECCM, Dörr JM, Scheidelaar S, Heger M, Egmond MR, Killian JA, Mohammadi T, Breukink E. (2018) <i>Bacillus subtilis</i> MraY in Detergent-Free System of Nanodiscs Wrapped by Styrene-Maleic Acid Copolymers. <i>PLoS One</i> 13(11): e0206692. https://doi.org/10.1371/journal.pone.0206692



- Falchi FA, Baeta T, Moura ECCM, Laguri C, Simorre JP, Polissi A, Sperandeo P. A LptF suppressor mutation reveals a checkpoint control for the correct assembly of the Lpt machinery. (Manuscript to be submitted)

OTHER INFORMATION

Research period abroad (30/07/2018 - 26/08/2018) at the Institut de Biologie Sctrutturale (Grenoble, France) under the PhD programme. Training in the following techniques: NMR spectroscopy, SPR (surface plasmon resonance), SEC-MALLS, membrane protein purification, size-exclusion chromatography.

Tutoring in the "Environmental Microbiology and Biotechnological Remediation" course at the Università degli Studi di Milano (25/06/2018 - 06/07/2018). Assistance in the preparation and performance of laboratory experiments (8 hours).

Courses attended:

- Expression of protein at large scale and NMR quality control. 15th October 2019, Grenoble, France
- Integrated Structural Biology. 8th - 10th April 2019, Milan, Italy
- Industrial Training Course at Naicons Srl. 11th - 13th February 2019, Milan, Italy
- Modern imaging techniques in biology. 10th - 11th September 2018, Milan, Italy
- Molecular Methods in Genome Engineering. 14th - 15th June 2018, Milan, Italy
- Host-pathogen interaction. 7th - 8th September 2017, Milan, Italy
- Occupational health and safety in laboratories. 12th and 19th October 2013, Porto, Portugal

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Lamego, 13/10/2020

SIGNATURE

Elisabete Cristina Conde Mendes Lourenco