
Elisabete Cristina Cordeiro Morais

elisabete.morais@itqb.unl.pt

Ciência ID: D11C-2753-0FDD

ORCID: 0000-0003-2264-3026

Work experience

Jan 2021 to present – Research fellow at ITQB NOVA (PD/BD/150980/2021)

Project: *Elucidation of Staphylococcus epidermidis response to skin endogenous antimicrobial fatty acids*

Sep 2017 to Sep 2020 - Research fellow at the Health Sciences Research Centre of the University of Beira interior (CICS-UBI)

Project: *Interdisciplinary Challenges On Neurodegeneration – ICON (ref. CENTRO-01- 0145-FEDER-000013)*

Main task: *Metabolomic detection of neurodegeneration biomarkers in biological samples*

Education and training

Sep 2021 - Jun Introduction to R” ITQB NOVA

Jun 2022 – XIV Manuel Rico NMR Summer School. JACA

Fev 2022 - SymbNET: from metagenomics to metabolic interactions, EMBL (virtual course)

Sep 2021 - 14th CERMAX practical course on basic NMR, ITQB NOVA

Jan 2021 to present - Ph.D. student in the Molecular Biosciences Doctoral Program, ITQB NOVA

Sep 2017 to Jun 2019 – Ph.D. student in Biomedicine, University of Beira Interior

Jan 2016 - Certification in Clinical Research - Level 1, through the CLIC project, a partnership between UNAVE and the Faculty of Medical Sciences of the Universidade Nova de Lisboa

July 2015 - Training in Implementation and Certification of HACCP Systems, Zonaverde

Sep 2015 - Course on analytical techniques LC-MS / MS, through the BioMarPT project, a partnership between IPMA and CIIMAR

Sep 2012 to Dec 2014 - Master in Biochemistry - Biomolecular methods, University of Aveiro (16/20)

Thesis title: *Study of lipid changes induced by silver nanoparticles*

Sep 2009 to Jun 2013 – BSc in Biochemistry, University of Aveiro (14/20)

Project developed: *Metabolic study of newborn urine*

Expertise

- Processing of biological samples
- Formulation of model systems based on liposomes
- Evaluation of oxidative stress
- Analysis of the lipid profile
- Univariate and multivariate analysis

Instrumentation: NMR, LC-MS, MALDI-MS

Software: GraphPad Prism, Topspin, AMIX, MassLynx, MatLab, SIMCA, R, Python

Language: Portuguese (native), English

Awards

Travel grant to attend ProteoAix 2023 (Aix-en-Provence, France) attributed by the Portuguese Association of Proteomics (Procura)

EMBL CPP Scientific Visitors Fellowship (call 31 December 2022)

SymbNET PhD Project Award (17/05/2022) – 1-year funded project: “*Investigating the determinants of Staphylococcus epidermidis pathogenicity with multi-omics-based modelling*” in collaboration with ITQ NOVA (Luís Gonçalves) and EMBL Heidelberg (Maria Zimmermann-Kogadeeva)

Best poster at X CICECO Meeting, Aveiro, Portugal, April 18-19, 2013

Selected publications

Articles	Diaz SO, Pinto J, Barros AS, Morais E , Duarte D, Negrão F, Pita C, Almeida M, Carreira I, Spraul M, Gil AM. <i>Newborn urinary metabolic signatures of prematurity and other disorders: a case control study</i> . Journal of Proteome Research (2015). DOI: 10.1021/acs.jproteome.5b00977
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Posters

E. Morais, S. Santos, E. Matveishina, E.M. Geissen, J. Armengaud, **M. Miragaia**, M. Zimmermann-Kogadeeva, L. G Gonçalves, A. V Coelho. *Metabolic modelling reveals pH-dependent differences in pathogenic and non-pathogenic Staphylococcus epidermidis strains*. 33rd European Congress of Clinical Microbiology & Infectious Diseases (ECCMID Copenhagen, Denmark ,15 - 18 April 2023

Morais E, Santos S, Gomes LP, Miragaia M, Gonçalves LG, Coelho AV. *Comparative metabolomic study indicates a metabolic re-route of a pathogenic Staphylococcus epidermidis strain at blood pH*. MicroBiotec - Congress of Microbiology and Biotechnology 2021, Webconference, November 23-26, 2021

Morais E, Sousa A, Verde I, Fonseca CP. *¹H-NMR-based erythrocyte's metabolomic signature in Alzheimer's disease: development of a new protocol*. III International Congress in Health Sciences Research: Towards Innovation and Entrepreneurship - Trends in Aging and Cancer, Covilhã, Portugal, November 14-16, 2019

Oliveira N, Amaral AS, **Morais E**, Conde R, Sousa A, Afonso RM, Cruz C, Verde I. *Metabolomic analysis of plasma of EBICohort individuals with different Framingham stroke risk scores*. III International Congress in Health Sciences Research Towards innovation and entrepreneurship: Trends in aging and cancer, Covilhã, Portugal, November 14-16, 2019

E. Morais, Sousa A, Verde I, Fonseca CP. *¹H-NMR-Based metabolomic study of erythrocytes in Alzheimer disease: a protocol optimization*. XIV Annual CICS-UBI Symposium, Covilhã, Portugal, July 4-5, 2019

Oliveira N, **Morais E**, Conde R, Cruz C, Fonseca CP, Boto R. *NMR-based urinary metabonomic studies to identify diaper and cotton ball contaminations*. XIII Annual CICS-UBI Symposium, Covilhã, Portugal, July 5-6, 2018

Diaz SO, **Morais E**, Barros AS, Duarte IF, Goodfellow BJ, Carreira IM, Galhano E, Almeida MC, Pita C, Negrão F, Gil AM. *Non-Invasive Diagnosis of Fetal and Newborns Disorders through ¹H-NMR*. X CICECO Meeting, Aveiro, Portugal, April 18-19, 2013

Oral presentations

- **E. Morais**, S. Santos, E. Matveishina, E.M. Geissen, J. Armengaud, M. Miragaia, M. Zimmermann-Kogadeeva, L. G Gonçalves, A. V Coelho. *Integration of proteomics and metabolic modelling to study the pH-dependent response of pathogenic and commensal Staphylococcus epidermidis strains*. ProteoAix 2023, 20-23 June 2023

- **Morais E**, Magalhães F., Santos S, Miragaia M; Gonçalves LG; Coelho AV. *Dynamic exometabolomics reveals the adaptation of Staphylococcus epidermidis to host blood pH*. Building Bridges in Biology, Oeiras, Portugal, 1st -3rd of March 2023

- **Morais E**; Santos S; Armengaud J; Miragaia M; Gonçalves LG; Coelho AV. *Differences and similarities on metabolic response to pH by commensal and pathogenic Staphylococcus epidermidis strains*. ProteoVilamoura, Vilamoura, Portugal, May 11-13, 2022

- **Morais E**, Peroxidação lipídica induzida por nanopartículas de prata: estudo em modelos biomiméticos lipossómicos e celulares. 3rd Workshop in Lipidomics, Aveiro, Portugal, May 21, 2014

Other activities

Since May 2022 – Member of Portuguese Association of Proteomics- REDE PROCURA

Since Oct 2022 - Member of Portuguese Society of Microbiology (SPM)

2017-2019 - Member of doctoral student's committee from the Health Sciences Research Centre of the University of Beira interior (CAD-CICS-UBI)

2019 - Member of organizing committee of the international congress "III Congress in Health Sciences Research: Towards Innovation and Entrepreneurship - Trends in Aging and Cancer (HSR-UBI 2019)", 14th-16th November 2019, Covilhã