

- **** +351 912 389 565
- ✓ raquelvcorreia@gmail.com
- **♀** Lisbon, Portugal
- in in/ana-correia
- ? raquelvcorreia

PROFILE

Experienced protein biochemist with a passion for solving biological puzzles and transforming raw data into meaningful insights.

SKILLS

Data analysis and

Python, knowledge of statistical methods and machine learning.

Project development and

Protein Engineering.

Biologics purification and analytical characterization.

Structural biology and structural-functional analysis of protein complexes.

Basic understanding of R.

ANA R. CORREIA

Work Experience

SCIENTIST | AMGEN INC.

Thousand Oaks, CA, USA | Apr 2018 - Sept 2022

- Integrated multidisciplinary teams focused on leveraging and structuring data for ML/AI applications.
- Project development and management.
- Protein engineering, development of purification and analytical characterization workflows for established and novel antibody-like formats (including bi- and multivalent biologics).
- Mentoring, cross-training and supervision of junior scientists in purification, data analysis, and high throughput sample tracking systems.

POSTDOC | CALTECH

PASADENA, CA, USA | Nov 2013 - Mar 2018

Hoelz Lab

- Expression, purification, assembly and characterization of large macromolecular complexes.
- Structural determination of protein complex by X-ray crystallography.
- Expression and characterization of synthetic antibodies, for further use in crystallization assays.

POSTDOC | CNB-CSIC

Madrid, SPAIN | Aug 2011 - Oct 2013

Caston Lab

- Production of virus in mammalian and fish cell lines. Purification of virus and viral like particles and subsequent biochemical and structural characterization (negative-stain and Cryo-EM).
- Viral ribonucleoprotein complexes extraction and characterization.

VISITNG RESEARCHER | BONN UNIVERSITY Voos Lab

Bonn, GERMANY | Feb 2010 - Jul 2010

• In vivo (yeast cells) and ex vivo (isolated mitochondria) characterization of a mitochondrial protein biogenesis.

CO-FOUNDER | EUROINGREDIENTES

Lisbon, PORTUGAL | 2000 - 2005

• Co-founder, responsible for business development and establishing new suppliers.

Education

INTERN AND VISITNG PHD STUDENT | NIMR-MRC

London, UK | 2005 - 2009

Research training on molecular biology and NMR.

PHD STUDENT | ITQB-NOVA

Lisbon, PORTUGAL | 2006 - 2010

Gomes Lab

• Conformational and functional characterization of a mitochondrial protein using different biophysical techniques namely: fluorescence spectroscopy, differential scanning calorimetry, calorimetry, circular dichroism and NMR.

BACHELOR'S DEGREE, BIOCHEMISTRY, 2005 | University of Lisbon (FCUL)

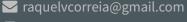
LANGUAGES

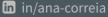
English Spanish

Portuguese (native)

HOBBIES & INTERESTS

Hiking, scubadiving, ocean conservacy, MTB and traveling





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Additional Training & Certifications

- Python 3 Programming by University of Michigan on Coursera. Certificate earned in 2022
- Applied Machine Learning in Python by University of Michigan on Coursera.
 Certificate earned in 2023
- Applied Text Mining in Python by University of Michigan on Coursera. Certificate earned in 2023
- Machine Learning Specialization by Stanford University & DeepLearning.Al on Coursera. Certificate earned at August 30, 2023
- Deep Learning Specialization by DeepLearning.Al on Coursera. Certificate earned at September 21, 2023
- Data Science Specialization by Johns Hopkins University on Coursera. (8 courses from the specialization including R programming, certificates earned in 2021)
- Bioinformatics I and II by University of Toronto on Coursera. Certificate earned in 2023.
- Algorithms for DNA sequencing by Johns Hopkins University on Coursera. Certificate earned in 2023.

Actively developing and expanding my skills in computational biology and data science.

Publications (8 as a first author, *)

- <u>Utility of physiologically based pharmacokinetic modeling to predict inter-antibody</u> variability in monoclonal antibody pharmacokinetics in mice. (2023) mAbs, 15(1): 2263926.
- <u>Development of in silico models to predict viscosity and mouse clearance using a comprehensive analytical data set collected on 83 scaffold-consistent monoclonal antibodies (2023) mAbs, 15(1):2256745.</u>
- Architecture of the cytoplasmic face of the nuclear pore (2022) **Science**, 376 (6598):1174-1192.
- Enhancing the Prefusion Conformational Stability of SARS-CoV-2 Spike Protein Through Structure-Guided Design (2021) Front. Immunol., 12, article 660198.
- Rational selection of building blocks for the assembly of bispecific antibodies (2020).
 mAbs, 13 (1), e1870058.
- Structural and functional analysis of mRNA export regulation by the nuclear pore complex (2018) Nat. Commun., 9 (1):2319-2338. *
- A new MR-SAD algorithm for the automatic building of protein models from low-resolution X-ray data and a poor starting model (2018) IUCrJ., 5 (Prt 2):166-171.
- <u>Nuclear pores. Architecture of the nuclear pore complex coat (2015) Science</u>, 347, 1148-52. *
- Probing the kinetic stabilities of Friedreich's Ataxia clinical variants using a solid phase GroEL chaperonin capture platform (2014) **Biomolecules**, 4 (4): 956-79. *
- Revertants, low temperature, and correctors reveal the mechanism of F508del-CTFR rescue by VX-809 and suggest multiple agents for full correction (2013) Chem. Biol., 20 (7):943-55.
- Iron binding activity in yeast frataxin entails a trade off with stability in the a1/b1 acidic ridge region (2010) **Biochem. J.**, 426(2):197-203. *
- No evidence of direct binding between ursodeoxycholic acid and the p53 DNA-binding domain (2010) Biosci Rep., 30(5):359-64. *
- The conserved Trp-155 in human frataxin as a hotspot for oxidative stress related chemical modifications (2009) BBRC, 390(3):1007-11. *
- <u>Dynamics</u>, <u>stability</u> and <u>iron-binding</u> <u>activity</u> of <u>frataxin clinical mutants</u> (2008) <u>FEBS</u>
 <u>J.</u>, <u>275</u>, <u>3680-3690</u>. *
- Conformational stability of human frataxin and effect of Friedreich's ataxia related mutations on Protein Folding (2006) Biochem. J., 398, 605-611. *