Emilyn Costa Conceição

Academic Curriculum Vitae

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Brazilian

EDUCATION

- **Postdoc fellow (2021 – current)** Stellenbosch University. **Host: Prof. Rob Warren.**

- **Postdoc in Clinical Research and Infectious Disease (2020 – 2021).** Oswaldo Cruz Foundation at the National Institute of Infectious Diseases Evandro Chagas. **Host: Dr. Beatriz Grinsztejn.**

- **PhD in Microbiology (2014 – 2018).**
Federal University of Rio de Janeiro (Brazil) and Paris-Sud-11 University (France). **Supervisors: Prof. Rafael Duarte, Prof. Karla Lima, Prof. Christophe Sola, and Dr. Philip Suffys.**

- **Masters in Parasite Biology in Amazon (2010 – 2012).**
State University do Pará. **Supervisor: Karla Lima.**

- **Bachelors in Biology (2006 – 2010).** Federal University of Pará. **Supervisor: Prof. Karla Lima.**

AWARDS

- **Best Oral Presentation**
American Society for Microbiology. 2017.

- **Best Thesis Supervisor (1st position)**
State University of Pará. 2015.

- **Honorable mention**
Brazilian society for Microbiology. 2011.

- **Awarded work (grade 9.0/10.0)**
Title: "Infecções pulmonares associadas ao *Mycobacterium massiliense, M. abscessus*, IX Jornada de Doenças Tropicais do Baixo Amazonas. 2008**.**

OTHER PROFESSIONAL ACTIVITIES

- **Periodical reviewer**
Memorias do Instituto Oswaldo Cruz, Infectious Genetic and Evolution, Tuberculosis, BMC Infectious Disease, Emerging Infectious Disease.
- **Attendance in Scientific Congresses**
32 (8 oral presentations); Training/courses (30); Scientific meeting organization (7).
- **Member of the Research Ethics Committee** of the University Hospital Clementino Fraga Filho of the Federal University of Rio de Janeiro. 2017 – 2018.

- PROFESSIONAL SUMMARY-

- **Publications:** 37 (articles), 1 (book), 3 (chapters), 57 (abstracts).
- **Supervision:** 6 (bachelors/honours), 2 (masters), and 2 (PhD).
- **Projects:** 20 (in progress) + 7 (concluded).

EXPERIENCE

- **Stellenbosch University, Cape Town, South Africa (2021-current).**
  - ✓ Postdoctoral researcher.
  - ✓ Clinical Trial Laboratory Coordinator.
  - ✓ Scientific communication.
- **Laboratory of Bacteriology and Bioassays at National Institute of Infectious Diseases Evandro Chagas - Oswaldo Cruz Foundation, Rio de Janeiro-RJ, Brazil (2019-2021).**
  - ✓ Postdoctoral researcher.
  - ✓ Lab technologist to the AIDS Clinical Trials Group (ACTG).
  - ✓ Lab technologist to the TB-ALLIANCE Group.
  - ✓ Activities: routine diagnostics for Mycobacterias at the Municipal and Regional levels.

- **Education consultant at UpGrad for Liverpool John Moores University (2020-Current).** Supervising and teaching.

- **PhD Fellow, Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES) at Federal University of Rio de Janeiro, Brazil (2014-2018).** Worked exclusively in PhD activities i.e. research, experiments in Molecular Biology, teaching, reporting and publications.

- **PhD Fellow, Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) at Paris Sud-11 University, France (2015-2018).** Worked exclusively in PhD activities i.e. research, experiments in Molecular Biology, teaching, reporting and publications.

- **Teaching Fellow, Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES) at Federal University of Pará and State University of Pará (2013 – 2014).** Taught "Biology Education" for Pedagogic classes and "Biology" courses in Natural Sciences.

- **Teaching Fellow, Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES) at State University of Pará (2011-2013).** Taught "Molecular Methods of Bacterial Typing" to Master's students and "Topics in Biology" to Biology students.

- **Masters Fellow, Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES) (2010-2012) at State University of Pará.** Worked exclusively in Master's thesis activities i.e. research, experiments, and teaching.

- **Research Fellow, Fundação Instituto Para o Desenvolvimento da Amazônia (FIDESA) at Evandro Chagas Institute (2012-2013).** Worked on the molecular modeling of TB drug resistance.

- **Bachelors Fellow, Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) at Evandro Chagas Institute (2009–2010).** Worked in a Scientific Initiation program on the application of molecular tools to bacterial typing.

- **Internship, Centro de Integração Empresa-Escola (CIEFF) at Evandro Chagas Institute (2008–2009).** Worked in a Scientific Initiation program on the application of molecular tools to bacterial typing.

- **Mycobacteriology**
  Bacilloscopy, sample decontamination, Culture (by LJ and MGIT), Drug susceptibility test (MGIT, LJ, and MIC), detection of latent TB by performing QuantiFERON® TB Gold IGRA test

- **Molecular Biology/Genotyping/Genomics**
  Whole-Genome Sequencing, Sanger sequencing for bacterial identification, Spoligotyping, MIRU-VNTR, RFLP-IS6110, PFGE, Real Time PCR, MTB/RIF Xpert-Ultra, Genotype MTBDRplus and Genotype-MTBDRsl, Genotype-NTM and SpeedOligo.

- **Teaching**
  Trainings, lectures, courses, thesis supervision.

- **Basic bioinformatics software**
  Bionumerics, Trimmomatic, Spades, Prokka, Snippy, TB-Profiler, Kvarq, Spotyping, BWA, SAM tools, itol, and others. Pipeline analysis (MTBSeq and MAGMA). Familiarity with GitHub and open-source collaboration.

- **General Software**
  Ubuntu Linux, Microsoft Windows, Microsoft Word, Excel, Access, PowerPoint.

- **Clinical Research Management**
  Experience with RedCap, Clickup and other tools

- **Scientific Communication**
  Social Media and Scientific Journalism

PUBLICATION – MAIN PEER REVIEW PAPERS SINCE 2021 (19/42)

1. MARCON, DM et al. 2024. Comprehensive Genomic Surveillance Reveals Transmission Profiles of Extensively Drug-resistant Tuberculosis Cases in Pará, Brazil in Frontiers in Microbiology, v.15, 1-1.

2. CONCEIÇÃO, EC et al. 2024. A Genome-Focused Investigation Reveals the Emergence of a Mycobacterium Tuberculosis Strain Related to Multidrug-Resistant Tuberculosis in the Amazon Region of Brazil, Microorganisms 2024, 12(9), 1817.

3. ROMAGNOLI, CP et al. 2024. Description of new species of *Mycobacterium terrae* complex isolated from sewage at the São Paulo zoological park foundation in Brazil In Frontiers in Microbiology, v.15, 1-1.

4. COSTA, GF et al. 2023. Factors Associated with Tuberculosis Outcome in a Hyperendemic City in the North of Brazil In Healthcare, v.11, 508.

5. CONCEIÇÃO, EC et al. 2023. Genomic Diversity of the Rarely Observed Genotype of the *Mycobacterium tuberculosis* Central Asian (CAS) Lineage 3 from North Brazil In Microorganisms, v.11, 132-10.

6. ANSELMO, LMP et al. 2023. New insights on tuberculosis transmission dynamics and drug susceptibility profiles among the prison population in Southern Brazil based on whole-genome sequencing In Sociedade Brasileira De Medicina Tropical, v.56, 1-8.

7. MESQUITA, CR et al. 2023. Spatial Analysis of Tuberculosis Patient Flow in a Neglected Region of Northern Brazil In Tropical Medicine And Infectious Disease, v.8, 397.

8. IÚDICE, TNS et al. 2023. The Role of GeneXpert® for Tuberculosis Diagnostics in Brazil: An Examination from a Historical and Epidemiological Perspective In Tropical Medicine And Infectious Disease, v.8, 483.

9. TU, PHT et al. 2022. Bedaquiline resistance probability to guide treatment decision making for rifampicin-resistant tuberculosis: insights from a qualitative study In BMC Infectious Diseases, v.22, 876-87.

10. SOUSA, EO et al. 2022. Laboratory-based study of drug resistance and genotypic profile of multidrug-resistant tuberculosis isolates in Salvador, Bahia, Brazil In Sociedade Brasileira De Medicina Tropical. v.55, 1-10.

11. VAN RIE, A et al. 2022. Sequencing Mycobacteria and Algorithm-determined Resistant Tuberculosis Treatment (SMARTT): a study protocol for a phase IV pragmatic randomized controlled patient management strategy trial In Trials, v.23, 864-13.

12. GARCEZ, JCD et al. 2022. Surveillance Quality Indicators Highlight the Need for Improving Tuberculosis Diagnostics and Monitoring in a Hyperendemic Area of the Brazilian Amazon Region In Tropical Medicine And Infectious Disease, v.7, 165-177.

13. SHARMA, A et al. 2022. Tuberculosis drug resistance profiling based on machine learning: A literature review In Brazilian Journal of Infectious Diseases.

14. MESQUITA, CR et al. 2021. A Clinical-Epidemiological and Geospatial Study of Tuberculosis in a Neglected Area in the Amazonian Region Highlights the Urgent Need for Control Measures In International Journal of Environmental Research and Public Health, v.18, 1335.

15. FERREIRA, ALS et al 2021. Analysis of Deaths Occurred in Households during the Pandemic by COVID-19 in a Brazilian Amazon Region: An Epidemiological Approach In International Journal Of Tropical Disease & Health, v.42, 1-12

16. FERNANDES, HM et al. 2021. COVID-19 Treatment Mycobacterial Infections: Better Safe than Sorry? In Infection Control and Hospital Epidemiology, v.124, 1-8.

17. MENARDO, F et al. 2021. Local adaptation in populations of *Mycobacterium tuberculosis* endemic to the Indian Ocean Rim In F1000RESEARCH, v.10, 60.

18. CONCEIÇÃO, EC et al. 2021. Molecular epidemiology of Mycobacterium tuberculosis in Brazil before the whole genome sequencing era: a literature review In Memorias Do Instituto Oswaldo Cruz, v.116, 1-14

19. MACHADO, E et al. 2021. Whole-Genome Sequences of *Mycobacterium abscessus subsp.* Isolates from Brazil In Microbiology Resource Announcements, v.10, 1-3.