

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** Memórias 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 (FIDESIA) 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.