

Curriculum Vitae

Marcelo Sousa Silva

Permanent Professor of Parasitology and Immunology

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Marcelo Sousa Silva is Permanent Professor at the Faculty of Pharmacy at the Federal University of Rio Grande do Norte (UFRN, Natal, Brazil). He is Permanent Member of the Post-graduate Program in Pharmaceutical Sciences and the Post-graduate Program in Biochemistry and Molecular Biology, both at UFRN-Brazil. He is Research Fellow at CNPq-Brazil, Coordinator of the Post-graduate Program in Pharmaceutical Sciences at UFRN and Coordinator of the Parasitology and Immunology discipline of the Pharmacy graduate course. Marcelo Silva has a PhD in Biotechnology (IST-UTL-Portugal, 2006), MSc in Biotechnology (USP-Brazil, 2001) and Graduation in Pharmaceutical Sciences (UFRN-Brazil, 1999). During his degree, he was a Research Fellowship at the Instituto Butantan (<http://www.butantan.gov.br>) and at the University of São Paulo (<http://www5.usp.br>). He developed his Post-doctoral at the Centro de Biologia Molecular Severo Ochoa – Universidad Autónoma de Madrid (Spain, 2007) and at the Instituto de Higiene e Medicina Tropical – Universidade Nova de Lisboa (IHMT-UNL-Portugal, from 2007 to 2012). His main lines of research are related to immunopathogenesis, evaluation of drugs and vaccines in the context of tropical diseases caused by protozoa (malaria, Chagas disease, leishmaniasis and sleeping sickness).

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I. Education

2006 – **PhD in Biotechnology**. Instituto Superior Técnico – Universidade Técnica de Lisboa, Lisbon – Portugal. Thesis: *Vacinas de DNA: um modelo experimental de imunização contra a Tripanosomose Africana*.

2001 – **Master in Biotechnology**. São Paulo University, São Paulo – Brazil. Dissertation: *Estudo dos mecanismos moleculares envolvidos na hemólise, dependente de complemento, induzida pelo veneno da aranha Loxosceles gaúcho*.

1999 – **Degree in Pharmaceutical Sciences**. Faculdade de Ciências Farmacêuticas. Universidade Federal do Rio Grande do Norte. Natal – Brazil.

II. Areas of expertise

Molecular parasitology

Immunology and vaccinology

Biotechnology

III. Publications

3.1. Chapters book

1. Moreno CJG, Oliveira JWF, Branco JC, Araújo L, Queiroz AM, Donato ST, Silva Júnior NJ, Rodrigues ETS, **Silva MS**. Cell culture and maintenance of the evolutionary forms of *Trypanosoma cruzi* for studies of parasitic biology. **In: Biology of Trypanosoma cruzi**. Ed. London: Intechopen Limited, 2019. ISBN: 9789535182719

DOI: 10.5772/intechopen.84733

2. Monte JFS, Moreno CJG, Monteiro JPMFL, de Oliveira Rocha HA, Ribeiro AR, **Silva MS**. Use of zymography in trypanosomiasis studies. **In: Methods in Molecular Biology**. Ed. New York: Springer New York, 1626: 213-220, 2017. ISBN: 9781493971091

3.2. Papers (last 5 years):

1. de Freitas-Oliveira JW, da Silva MFA, Damasceno IZ, Rocha HAO, da Silva Júnior AA, Silva MS. In Vitro Validation of Antiparasitic Activity of PLA-Nanoparticles of Sodium Diethyldithiocarbamate against Trypanosoma cruzi. **PHARMACEUTICS**, v. 14, p. 497-511, 2022.
2. QUEIROZ, A. M. V. ; OLIVEIRA, J. W. F. ; MORENO, C. J. ; GUERIN, D. M. ; SILVA, M. S. . VLP-Based Vaccines as a Suitable Technology to Target Trypanosomatid Diseases. **Vaccines**, v. 9, p. 220-228, 2021.
3. OLIVEIRA, J. W. F. ; TORRES, T. M. ; MORENO, C. J. G. ; AMORIM-CARMO, B. ; DAMASCENO, I. Z. ; SOARES, A. K. M. C. ; BARBOSA, J. S. ; ROCHA, H. A. O. ; SILVA, M. S. . Insights of antiparasitic activity of sodium diethyldithiocarbamate against different strains of Trypanosoma cruzi. **Scientific Reports**, v. x, p. 1-15, 2021.
4. QUEIROZ, A. M. V. ; YANSHINA, Y. A. ; RODRIGUES, E. T. S. ; SANTOS, F. L. N. ; CELEDON, P. A. F. ; MAHESHWARI, S. ; GABELLI, S. B. ; RUBIO, C. S. P. ; DURANA, A. ; GUERIN, D. M. A. ; SILVA, M. S. . Antibodies response induced by recombinant virus-like particles from Triatoma virus and chimeric antigens from Trypanosoma cruzi. **VACCINE**, v. xxx, p. 1-12, 2021.
5. DIAS-GUERREIRO, TATIANA ; PALMA-MARQUES, JOANA ; MOURATA-GONÇALVES, PATRÍCIA ; ALEXANDRE-PIRES, GRAÇA ; VALÉRIO-BOLAS, ANA ; GABRIEL, ÁUREA ; NUNES, TELMO ; ANTUNES, WILSON ; FONSECA, ISABEL PEREIRA DA ; SOUSA-SILVA, MARCELO ; SANTOS-GOMES, GABRIELA . African Trypanosomiasis: Extracellular Vesicles Shed by Trypanosoma brucei brucei Manipulate Host Mononuclear Cells. **Biomedicines**, v. 9, p. 1056, 2021.
6. da Silva NS, Araújo NK, Daniele-Silva A, Oliveira JWF, Medeiros JM, Araújo RM, Ferreira LS, Rocha HAO, Silva-Júnior AA, **Silva MS**, Fernandes-Pedrosa MF. Antimicrobial activity of Chitosan oligosaccharides with special attention to antiparasitic potential. **Marine Drugs**, 19: 110-129, 2021.

7. Antunes ML, Seixas J, Ferreira HE, **Silva MS**. Adequacy of severe malaria markers and prognostic scores in an Intensive Care Unit in Luanda, Angola: A clinical study. **J. Clin. Med.**, **9**: 3862-3874, 2020.
8. Oliveira VS, Dantas ED, Queiroz ATS, Oliveiera JWF, **Silva MS**, Ferreira PG, Carvalho da Silva F, Ferreira VF, de Lima AAN. Novel solid dispersions of Naphthoquinone using different polymers for improvement of antichagasic activity. **Pharmaceutics**, **12**: 1136-1147, 2020.
9. Santos JCB, de Melo JA, Maheshwari S, de Medeiros WMTQ, Oliveira JWF, Moreno CJ, Amzel LM, Gabelli SB, **Silva MS**. Bisphosphonate-based molecules as potential new antiparasitic drugs. **Molecules**, **25**: 2602-2620, 2020.
10. Brito TK, Silva Viana RL, Gonçalves Moreno CJ, da Silva Barbosa J, Lopes de Sousa Júnior F, Campos de Medeiros MJ, Melo-Silveira RF, Almeida-Lima J, de Lima Pontes D, **Silva MS**, Oliveira Rocha HA. Synthesis of Silver Nanoparticle Employing Corn Cob Xylan as a Reducing Agent with Anti-*Trypanosoma cruzi* Activity. **Int. J. Nanomedicine**, **15**:965-979, 2020.
11. Moreno CJG, Temporão A, Torres T, **Sousa Silva M**. *Trypanosoma brucei* Interaction with Host: Mechanism of VSG Release as Target for Drug Discovery for African Trypanosomiasis. **Int. J. Mol. Sci.**, **20**(6): 1484, 2019.
12. Daltro RT, Leony LM, Freitas NEM, Silva AAO, Santos EF, Del-Rei RP, Brito MEF, Brandão-Filho SP, Gomes YM, **Silva MS**, Donato ST, Jeronimo SMB, Monteiro GRG, Carvalho LP, Magalhães AS, Zanchin NIT, Celedon PAF, Santos FLN. Cross-reactivity using chimeric *Trypanosoma cruzi* antigens: Diagnostic performance in settings where Chagas disease and American cutaneous or visceral leishmaniasis are coendemic. **J. Clin. Microbiol.**, **57**(8):e00762-19, 2019.
13. Oliveira JWF, Rocha HAO, de Medeiros WMTQ, **Silva MS**. Application of Dithiocarbamates as potential new antitrypanosomatids-drugs: Approach chemistry, functional and biological. **Molecules**, **24**(15): 2806, 2019.
14. Teixeira AF, Pereira JG, Pestana-Ascensão S, **Silva MS**. *Trans*-sialidase protein as a potential serological marker for African trypanosomiasis. **Protein J.**, **38**(1): 50-57, 2019.
15. Moreno YR, Donato ST, Nogueira F, **Sousa Silva M**. Comparative analysis of the serological reactivity of individuals with clinical history of malaria using two different ELISA tests. **Diagnostics**, **9**(4):168, 2019.

16. Moreno CJG, Torres T, **Silva MS**. Variable Surface Glycoprotein from *Trypanosoma brucei* undergoes cleavage by matrix metalloproteinases: An in silico approach. **Pathogens**, **8(4): 178, 2019**.
17. Amorim-Carmo B, Daniele-Silva A, Parente AMS, Furtado AA, Carvalho E, Oliveira JWF, Santos ECG, **Silva MS**, Silva SRB, Silva-Júnior AA, Monteiro NK, Fernandes-Pedrosa MF. Potent and broad-spectrum antimicrobial activity of analogs from the Scorpion peptide Stigmurin. **Int. J. Mol. Sci.**, **20: 623-644, 2019**.
18. Ribeiro AR, Lima L, de Almeida LA, Monteiro J, Moreno CJG, Nascimento JD, de Araújo RF, Mello F, Martins LPA, Graminha MAS, Teixeira MMG, **Silva MS**, Steindel M, da Rosa JA. Biological and molecular characterization of *Trypanosoma cruzi* strains from four states of Brazil. **Am. J. Trop. Med. Hyg.**, **98(2): 453-463, 2018**.
19. Domingos J, Casimiro A, Portugal-Calisto D, Varandas L, Nogueira F, **Silva MS**. Clinical, laboratorial and immunological aspects of severe malaria in children from Guine-Bissau. **Acta Trop.**, **185: 46-51, 2018**.
20. Parente AMS, Daniele-Silva A, Furtado AA, Melo MA, Lacerda AF, Queiroz M, Moreno C, Santos E, Rocha HAO, Barbosa EG, Carvalho E, Silva-Júnior AA, **Silva MS**, Fernandes-Pedrosa MF. Analogs of the scorpion venom peptide Stigmurin: Structural assessment, toxicity, and increased antimicrobial activity. **Toxins**, **10: 61-76, 2018**.

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