

Rodrigo Otávio Silveira Silva

Curriculum Vitae

Date of Birth: September 27, 1985.

Place of birth: Belo Horizonte, Minas Gerais, Brazil.

Home address: Tuiuti street, 450. Padre Eustáquio. 30720-440. Belo Horizonte, Brazil

Marital status: Single

Foreign Languages: Speak, read and write in English and Spanish

- **Education**

Post-Doc. Veterinary Medicine: 2014 – 2016 - UFMG – Brazil

Post-Doc. Copenhagen University: 2020 – Denmark

Ph.D. Veterinary Medicine: 2011 – 2014 – UFMG – Brazil

Visiting PhD-student: 2013 - UK, Denmark. Advisor: Prof. Anders M. Bojesen.

M.S. Veterinary Medicine: 2009 - 2011 - UFMG – Brazil

B.S. Veterinary Medicine: 2004 - 2008 - UFMG - Brazil

- **Personal Statement**

My research career has involved research related to clostridial infection in humans and animals. Specifically with *Clostridium difficile*, I have been working on the epidemiology of the disease in humans and animals since 2005, with some relevant papers in this subject (please check below). Today, my laboratory routinely performs the diagnosis of *C. difficile*-infection for two hospitals and several techniques are also standardized for research porpoise, including ribotyping, Multilocus sequence typing (MLST), minimal inhibitory concentration (MIC) and whole genome sequence (WGS) of *C. difficile* isolates. I believe that translational research projects can really help us understanding how *C. difficile* is evolving.

- **Professional Experience**

2017 – to date: Adjunt Professor. *Bacterial diseases* – UFMG – Brazil

2014: Associate Professor. *Veterinary Microbiology* – UNIFENAS – Brazil.

2013: Visiting Professor. *Clostridial Diseases of Animals* – UFERSA – Brazil.

- **Awards and Achievements**

2020 - Honorable Mention (Co-supervisor). Veterinary Medicine. Coordination for the Improvement of Higher Level Personnel (CAPES) Thesis Award

2015 - Best Thesis in Veterinary Medicine. Coordination for the Improvement of Higher Level Personnel (CAPES) Thesis Award.

2015 - Best Thesis in Veterinary Medicine. UFMG Thesis Award.

2015 - Honorable Mention. UFMG Thesis Award.

2015 - Best presentation: Congress of Gastroenterology (Gastrominas 2015). Medical Association of Minas Gerais. Title: "Evaluation of commercial assays for diagnosis of *Clostridium difficile*-associated diarrhea at a University Hospital in Brazil."

2011 - Work selected in 2nd place in the XV Congress of the Brazilian Association of Swine Veterinarians. Title of the presented abstract: "Development and evaluation of a multivalent vaccine for the control of neonatal diarrhea caused by *Clostridium perfringens* and *Clostridium difficile*."

Reviewer (Call for grant)

Italian Ministry of Health (MOH). Call for grant 2014.

Italian Ministry of Health (MOH). Call for grant 2017.

Publications

Peer reviewed manuscripts: 110

Book chapters: 4

Patents: 1

Popular manuscripts: 20

Complete list at: <https://scholar.google.com.br/citations?user=6B5ZwYkAAAAJ>

Main Publications

- **Book chapter**

Silva, ROS. Uzal, FA. Oliveira, CA. Lobato, FCF. Chapter: Gas Gangrene (Malignant Edema). In: Francisco A. Uzal; J. Glenn Songer; John F. Prescott; Michel R. Popoff. (Editors). *Clostridial Diseases of Animals*. Wiley. <http://onlinelibrary.wiley.com/doi/10.1002/9781118728291.ch20/summary>

- **Selected reviewed manuscripts (*Top 5)**

*Diniz AN. et al. Molecular epidemiology of *Clostridioides* (previously *Clostridium*) *difficile* isolates from a university hospital in Minas Gerais, Brazil. **Anaerobe**, 2019. <https://doi.org/10.1016/j.anaerobe.2019.01.010>

*Oliveira Junior CA. et al. Non-toxigenic strain of *Clostridioides difficile* Z31 reduces the occurrence of *C. difficile* infection (CDI) in one-day-old piglets on a commercial pig farm. **Veterinary Microbiology**, 2019. <https://doi.org/10.1016/j.vetmic.2019.02.026>

Oliveira Junior CA. et al. The non-toxigenic strain of *Clostridioides difficile* Z31 can prevent infection by *C. difficile* in experimental model piglets. **Anaerobe**, 2019. <https://doi.org/10.1016/j.anaerobe.2018.10.002>

Oliveira Junior CA. et al. Evaluation of growth and sporulation of a non-toxigenic strain of *Clostridioides difficile* (Z31) and its shelf viability. **Brazilian Journal of Microbiology**, 2019. <https://doi.org/10.1007/s42770-018-0023-4>

*Cançado GGL. et al. Impact of simultaneous glutamate dehydrogenase and toxin A/B rapid immunoassay on *Clostridium difficile* diagnosis and treatment in hospitalized patients with antibiotic-associated diarrhea in a university hospital of Brazil. **Journal of Gastroenterology and Hepatology**, 2018. <https://doi.org/10.1111/jgh.13901>

Cançado GGL. et al. Clinical epidemiology of *Clostridium difficile* infection among hospitalized patients with antibiotic-associated diarrhea in a university hospital of Brazil. **Anaerobe**, 2018. <https://doi.org/10.1016/j.anaerobe.2018.08.005>

*Oliveira Junior CA. et al. Rodents are carriers of *Clostridioides difficile* strains similar to those isolated from piglets. **Anaerobe**, 2018. <https://doi.org/10.1016/j.anaerobe.2018.04.006>

Almeida JC. Et al. Isolation of *Clostridium perfringens* and *C. difficile* in crab-eating fox (*Cerdocyon thous* - Linnaeus 1776) from Northeastern Brazil. **Arq. Bras. Med. Vet. Zootec.** <http://dx.doi.org/10.1590/1678-4162-9895>

Silva ROS. et al. *Clostridium perfringens* and *C. difficile* in parvovirus-positive dogs. **Anaerobe**, 2017. <https://doi.org/10.1016/j.anaerobe.2017.07.001>

Silva ROS. et al. *Clostridioides difficile* infection in dogs with chronic-recurring diarrhea responsive to dietary changes. **Anaerobe**, 2018. <https://doi.org/10.1016/j.anaerobe.2018.03.011>

Diniz, AN. *et al.* *Clostridium perfringens* type A *netF* and *netE* positive and *Clostridium difficile* co-infection in two adult dogs. **Anaerobe**, 2016. <https://doi.org/10.1016/j.anaerobe.2015.12.013>

*Pereira, FL. *et al.* Complete genome sequence of *Peptoclostridium difficile* strain Z31. **Gut Pathogens**, 2016. <http://dx.doi.org/10.1186/s13099-016-0095-3>

Oliveira Junior, CA. *et al.* Prevention of *Clostridium difficile* infection in hamsters using a non-toxigenic strain. **Ciência Rural**, 2016. <http://dx.doi.org/10.1590/0103-8478cr20150454>

Silva, ROS. *et al.* Carriage of *Clostridium difficile* in free-living South American coati (*Nasua nasua*) in Brazil. **Anaerobe**, 2015. <http://dx.doi.org/10.1016/j.anaerobe.2014.09.012>

Silva, ROS. *et al.* *Clostridium difficile* ribotypes in humans and animals in Brazil. **Memórias do Instituto Oswaldo Cruz**, 2015. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4708028/>

Silva, ROS. *et al.* *Clostridium perfringens*: a review of the disease in pigs, horses and broiler chickens. **Ciência Rural**, 2015. <http://dx.doi.org/10.1590/0103-8478cr20140927>

Silva, ROS. *et al.* *Clostridium difficile* and *C. perfringens* from wild carnivore species in Brazil. **Anaerobe**, 2014. <http://dx.doi.org/10.1016/j.anaerobe.2014.06.012>

Silva, ROS. *et al.* Evaluation of three enzyme immunoassays for diagnosis of *Clostridium difficile*-associated diarrhea in foals. **Journal of Equine Veterinary Science**, 2014. <http://dx.doi.org/10.1016/j.jevs.2014.05.012>

Silva, ROS. *et al.* Antimicrobial susceptibility of *Clostridium difficile* isolated from animals and humans in Brazil. **Ciência Rural**, 2014. <http://dx.doi.org/10.1590/S0103-84782014000500013>

Silva, ROS. *et al.* *Clostridium difficile*-associated diarrhea in an ocelot (*Leopardus pardalis*). **Anaerobe**, 2013. <http://dx.doi.org/10.1016/j.anaerobe.2013.02.007>

Silva, ROS *et al.* Detection of A/B toxin and isolation of *Clostridium difficile* and *Clostridium perfringens* from foals. **Equine Veterinary Journal**, 2013. <http://www.ncbi.nlm.nih.gov/pubmed/23452044>

Silva, ROS. *et al.* Evaluation of three enzyme immunoassays and toxigenic culture for diagnosis of *Clostridium difficile*-associated enteritis in piglets. **Journal of Swine Health and Production**, 2013. <https://www.aasv.org/shap/issues/v21n6/v21n6p300.html>

Silva, ROS. *et al.* Detection of toxins A/B and Isolation of *Clostridium difficile* and *Clostridium perfringens* from dogs in Brazil. **Brazilian Journal of Microbiology**, 2013. <http://dx.doi.org/10.1590/S1517-83822013005000008>

Silva, ROS. *et al.* *Clostridium difficile* infection: main features and occurrence in domestic species in Brazil. **Ciência Rural**, 2013. <http://dx.doi.org/10.1590/S0103-84782012005000137>

Silva, ROS. *et al.* First confirmed case of *Clostridium difficile*-associated diarrhea in foals in Brazil. **Ciência Rural**, 2012. <http://dx.doi.org/10.1590/S0103-84782012000300018>

Silva, ROS. *et al.* Detection of enterotoxin A and cytotoxin B, and isolation of *Clostridium difficile* in piglets in Minas Gerais, Brazil. **Ciência Rural**, 2011. <http://dx.doi.org/10.1590/S0103-84782011005000100>

Cruz Junior, ECC. *et al.* A surveillance of enteropathogens in piglets from birth to seven days of age in Brazil. **Pesquisa Veterinária Brasileira**, 2013. <http://dx.doi.org/10.1590/S0100-736X2013000800002>