**Title: Oral bacterial community of HIV-1-infected Brazilian children revealed by next-generation DNA sequencing**

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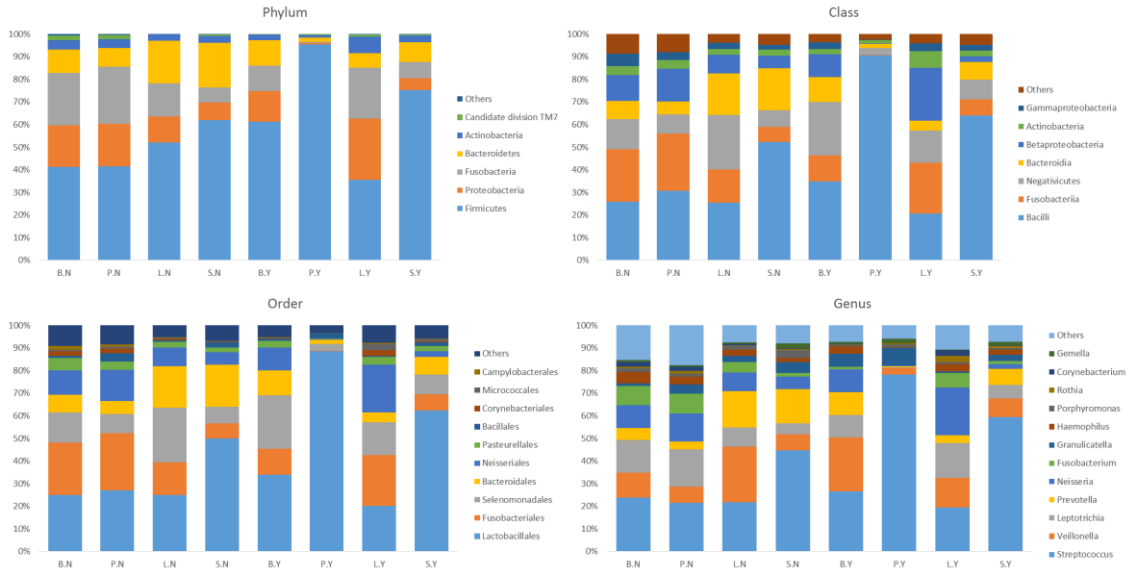
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## I. Abstract Body

This study compared the oral bacterial community between HIV+ and HIV- Brazilian children. 27 HIV+ and 30 HIV- were enrolled in this study. Total saliva, biofilm from the dorsal tongue, and biofilm pooled from supragingival and subgingival sites were collected from all children. Genomic DNA was purified from all the oral samples and sequenced using Ion Torrent technology. The most represented phyla were Firmicutes (~58%) and Fusobacteria (~14%), In the supragingival biofilm, the phylum Firmicutes and genus *Streptococcus* were more frequent in HIV+ (~95% and 78%, respectively) than in HIV- individuals (~40% and 24%, respectively). In contrast, *Neisseria* spp. and *Leptotrichia* spp. showed relative abundance of approximately 13% and 15%, respectively, in HIV- samples; however these genera were undetected in HIV+ individuals. In the subgingival biofilm and on the tongue of HIV-, the relative abundance of the *Veillonella* spp. and *Prevotella* spp. genera were higher compared to HIV+. On the tongue, the genera with greater relative abundance in HIV+ were *Neisseria* spp. and *Leptotrichia* spp. In saliva, there was a slight difference in relative abundance of the genus *Prevotella* observed between HIV+ and non-HIV- (15% and 7%, respectively). While the Chao diversity index revealed an increase in the richness of sub- and supragingival biofilms in the HIV+ samples compared with HIV-**,** the Shannon diversity index was higher in HIV+ only for the biofilm supragingival samples. In conclusion, HIV+ children present an oral bacterial community with lower complexity than in HIV-; however, they have a higher frequency of the phyla Firmicutes and streptococci.

## II. Image




## III. Reference:

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**IV. Biography:**

Lucio Souza Gonçalves, DDS, MSc, PhD is full-time Researcher and Professor of Periodontology (Estacio de Sá University, Brazil). He received his Dental Degree (1988), Master's degree in Periodontology (2000), and PhD in Oral Microbiology (2006) from Federal University of Rio de Janeiro, Brazil. He also completed a Postdoctoral Research Fellowship (University of Otago – 2014). Since 1998, he has been teaching periodontology, oral microbiology, biostatistics, epidemiology and clinical dentistry. In addition, he has been working actively as an ad hoc reviewer for several international journals in oral science (Journal of Periodontology, Journal of Periodontal Research, Oral Diseases, International Dental Journal, etc).

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