

**P0358****Intestinal Microbiota Profile of Pigs With and Without In-Feed Antibiotics***Date: Monday, January 12, 2015**Room:**Maurício Egidio Cantao , Embrapa Swine and Poultry, Concordia, Brazil**Caroline Pissetti , University of Rio Grande do Sul, Porto Alegre, Brazil**Jalusa Deon Kich , Embrapa Swine and Poultry, Concordia, Brazil**Sara Zarth , Santa Catarina State University, Lages, Brazil**Nelson Mores , Embrapa Swine and Poultry, Concordia, Brazil**Marisa Cardoso , University of Rio Grande do Sul, Porto Alegre, Brazil*

Pig's intestinal microbiota is composed of different microorganism groups. These microorganisms are extremely important to the host health, because they exert metabolic and protective functions, such as improving natural defense against pathogens. The diet compositions being fed to the animals are directly related to the intestinal microbiota in pigs. In this study, we compared the intestinal microbiota profile of 6 pigs during two different time points 5 and 65 days of age. All pigs at 5 days were free of in-feed antibiotics, since they were just being fed with sow milk. Animals were sub-divided in two groups post-weaning day 28: G1 – without in-feed antibiotics; G2 – pigs that received doses of colistin (120ppm – for 10 days after weaning) and doxycycline (200ppm – 10 days prior samples collection). Fecal DNA was extracted using PowerFecal® kit. Bacteria 16S rDNA was amplified within V5-V6 region and sequenced using Ion Torrent PGM. All 16S rDNA reads were analyzed by Mothur for quality control, taxonomic classifications and Beta-diversity analysis.

After data cleaning, approximately 80 thousand reads per sample were used for the analysis. For bacterial taxonomic classifications, the sequences were performed based on SILVA database clustered at 97% similarity. Beta-diversity analysis was based on phylogenetic information and tested for statistical significance with a weighted Unifrac test. The bacteria community structure among pigs at 5 days of age was not different (p -value=0.341), whereas bacteria community structure of pigs at 65 days between G1 and G2 was different (p -value<0.001). In conclusion, there was a difference in the gut microbiota profile of pigs with 65 days of age fed with and without in-feed antibiotic.

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