

Figure S7: PCA scores plots generated using relative abundance values of the six most abundant families: *Bacteroidaceae, Porphyromonadaceae, Rikenellaceae, Lachnospiraceae, Ruminococcaceae* and *Peptostreptococcaceae*. Plots are shown for samples collected from all animals at weeks 5, 7, and 10 (Log10 transformed, mean centred data; Week 5: R2 = 0.87 Q2 = 0.53; Week 7: R2 = 0.82 Q2 = 0.06; Week 10: R2 = 0.78 Q2 = 0.29). In each plot principal components 1 and 2 (PC1 and PC2) are shown with the percentage of explained variance described by each component. Samples are coloured according to the cage (1-6) of each animal. Week 14 is not shown here, as the Q2 was negative with the first component, and was thus not considered a valid model.