

Figure S4: PCA scores plots generated using relative abundance values of the three most abundant phyla: *Bacteroidetes*, *Firmicutes* and *Actinobacteria*, insamples collected from all animals at all time points (mean centred, Pareto-scaled data; R2 = 0.99, Q2 = 0.96). Principal components 1 and 2 (PC1 and PC2) are shown with the percentage of explained variance described by each component. A: Samples are coloured according to the age (in weeks) at which the sample was collected. B: Samples are coloured according to the genotype of the animal. C: Samples are coloured according to the cage (1-6) of each animal. The scores plot in (A) can be used as a reference for the sample time points; the time points are not shown in (B) and (C) to aid visualisation of potential trends.