

Figure S1: Gut microbial community composition varies with other sampling parameters, related to Figure 2, Data S1 and Table S2. Nonmetric multidimensional scaling (NMDS) ordination plots illustrate differences in gut microbial community composition, based on Bray-Curtis dissimilarities, as a factor of (A) chimpanzee community membership, (B) sampling calendar month, and (C) sex. P values are reported for PERMANOVA analyses. Ellipses illustrate standard deviation.



**Figure S2: Mother-offspring relationships shape gut microbial similarity, related to Figure 2 and Table S2.** (A) Bray-Curtis dissimilarity between offspring and mother as a function of offspring age group. (B) Bray-Curtis dissimilarities between the gut microbiotas of an individual and its mother (blue) or between an individual and a random adult female (teal). Large circles are means; bars show standard deviations. P values reported for linear mixed effects model likelihood tests. \* indicates P<0.05 contrast for estimated marginal means of linear mixed effects model.



Figure S3: Gut microbial community variation between individuals according to non-age parameters, related to Figure 2, Data S1 and Table S2. (A) Bray-Curtis dissimilarities as a function of genetic relatedness. Only chimpanzees with known relatedness scores from the Kanyawara community were included. (B) Bray-Curtis dissimilarities as a function of chimpanzee community membership — both individuals in Kanyawara, both in Ngogo, or a mix. (C) Bray-Curtis dissimilarities as a function of sex — both individuals female, both male, or a mix. Large circles are means; bars show standard deviations. P values are reported for permuted Kruskal-Wallis tests. \* indicates P<0.05 contrast for estimated marginal means of linear mixed effects model.