**Supplementary Figure 4**: Linear discriminant analysis effect size (LEfSe) performed with the discriminant OTUs (VIP  $\geq$  1) from the PLS-DA analysis. In (A) the OTUs most likely to drive differences in CTRL (black), NoPAP (red) and PAP (green) groups are represented in Log<sub>10</sub> LDA score. These results are represented in a cladogram in (B) with the OTU classification at the level of phylum, class, order, family, genus and species shown from the inside to the outside.



