



**Fig. S2. Key taxa associated with the change in skin status.** (a-d) Box-plot of the extent of change in relative abundance of key taxa (*Campylobacteraceae*, *Campylobacter*, *Campylobacter jejuni*, and *Gordoniaceae*) in the reference from healthy family controls, and in 4 types of change in skin status: lesion to normal, normal to lesion, lesion to lesion, normal to normal from psoriasis patients. \* $p < 0.05$  in the permutation test with 999 permutations to compare the significance of the difference in the change in relative abundance. F: family; G: genus; S: species.