



**Fig. S1. Bacterial community profiles for patients with hand eczema stratified by culture-based carrier status of *Staphylococcus aureus*.** Based on 5 visits, patients were categorized according to number of visits with *S. aureus* colonization identified by culture, i.e. *S. aureus* non-carriers (culture-negative at all visits), intermittent carriers (culture-positive at 1–4 visits), and persistent carriers (culture-positive at all visits). The barplot shows the relative abundance of bacteria on lesional skin at baseline.