

Figure S1

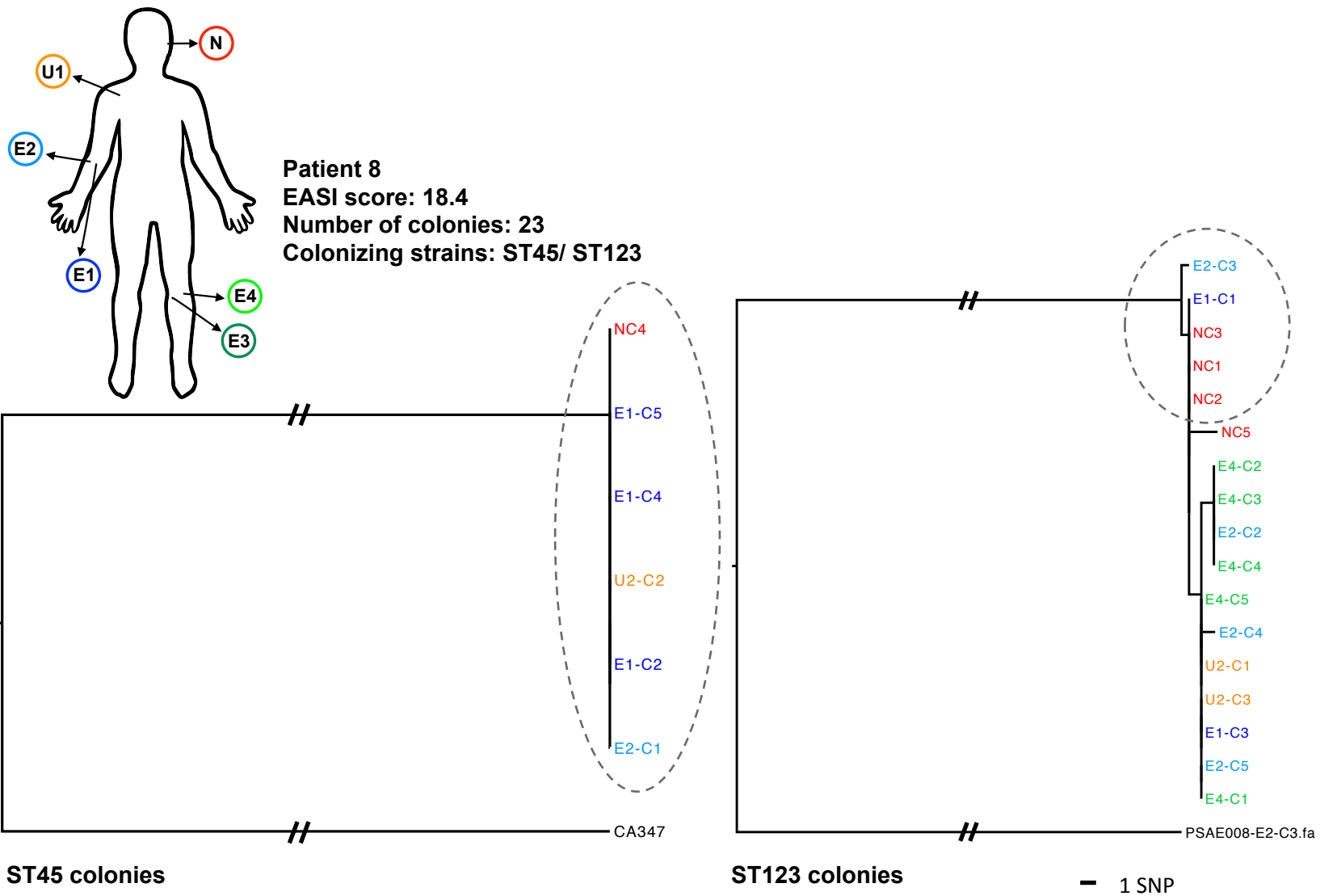
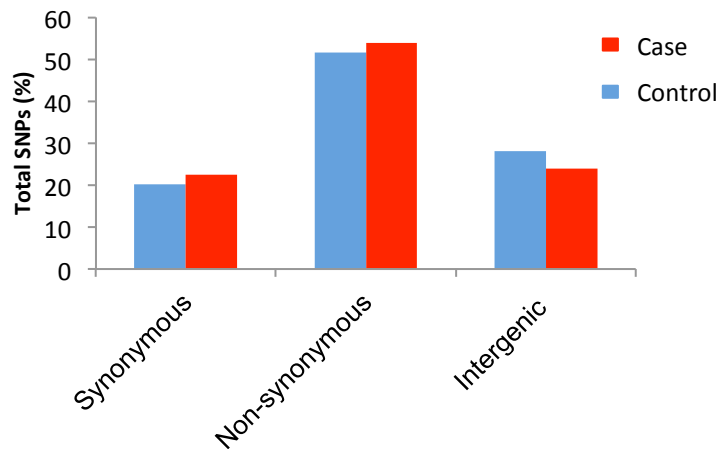


Figure S1 Self-transmission and co-colonization.

Colonization by two distinct STs in Patient 8 (study ID PSAE008). Maximum likelihood core SNP tree of colonies from 4 body sites. Both strains are present nasally and extra-nasally. Branch label coloring corresponds to body site, marked on diagram. Perforated lines indicate overlapping spread between body sites. ST45 colonies are genetically identical. ST45 colony tree routed using CA347 reference; ST123 colony tree rooted used self-reference of E2-C3 colony assembly. Branch labels: E1/ 3- lateral border of single eczema site. E2/4- medial border of single eczema site. SNP bar is indicated for scale (not applicable to root branches with strikethrough).

Figure S2

a



b

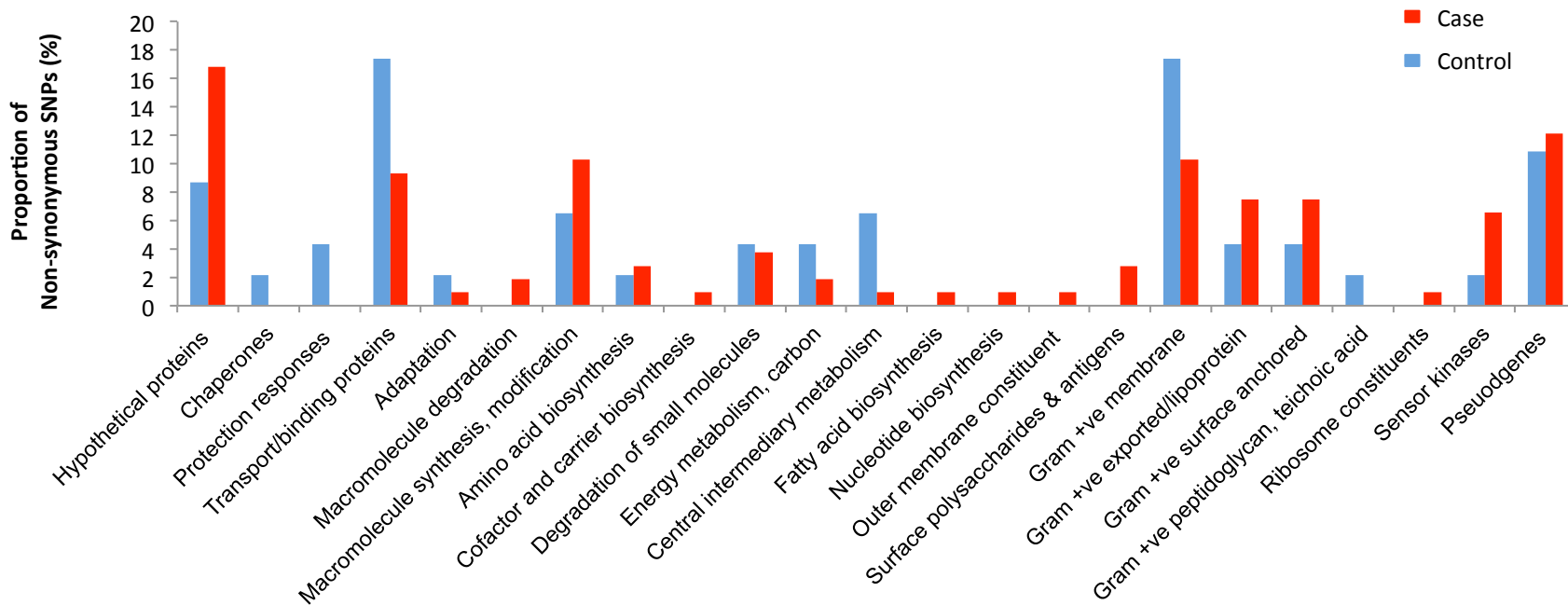


Figure S2 Distribution of SNPs by type and functional gene classification

(a) Distribution of SNP types occurring between cases and controls (total number of SNPs =285). (b) Distribution of non-synonymous base substitutions by functional gene class (n= 152) across the *S. aureus* genome.