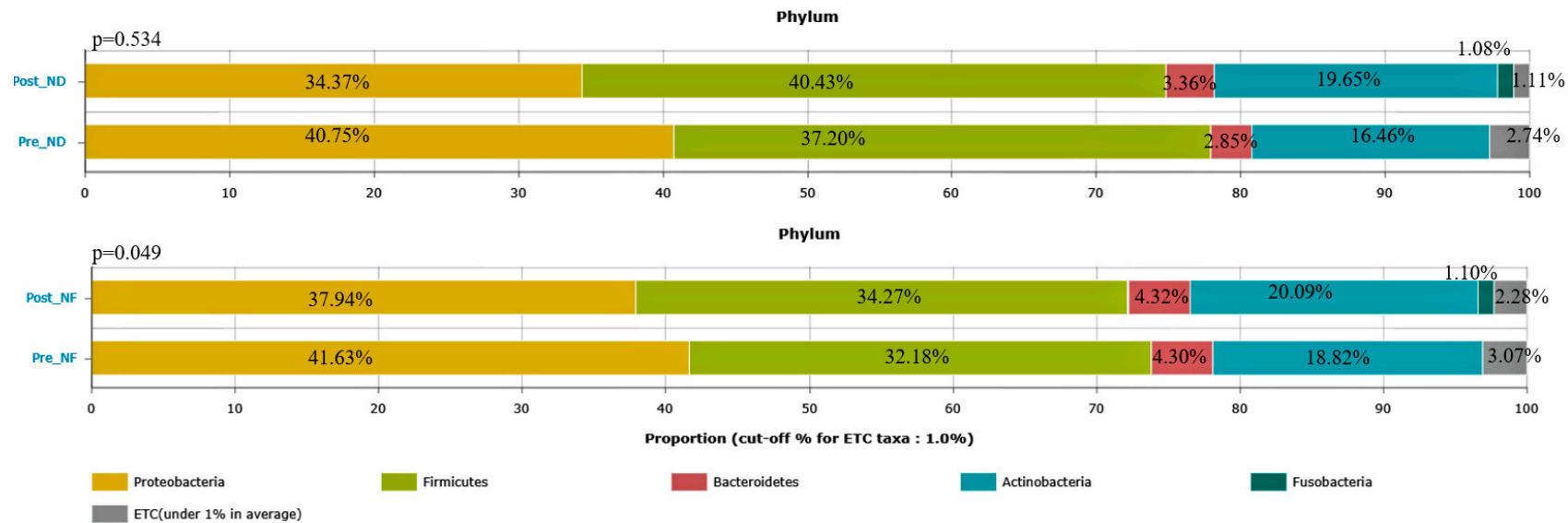


Sup. 1. The relative abundance of the most prevalent bacterial groups associated with each microenvironment depicted for all the subjects investigated. Superscripts indicate phylum.

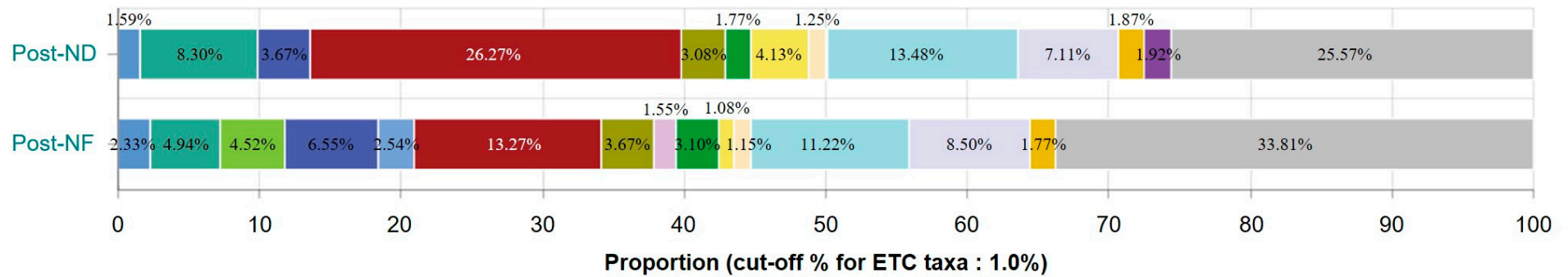


Sup. 2. The relative abundance of the most prevalent bacterial groups in each group.

Sup. 3. The relative abundance of the main genera of bacteria in post-treatment groups (post-ND and post-NF)

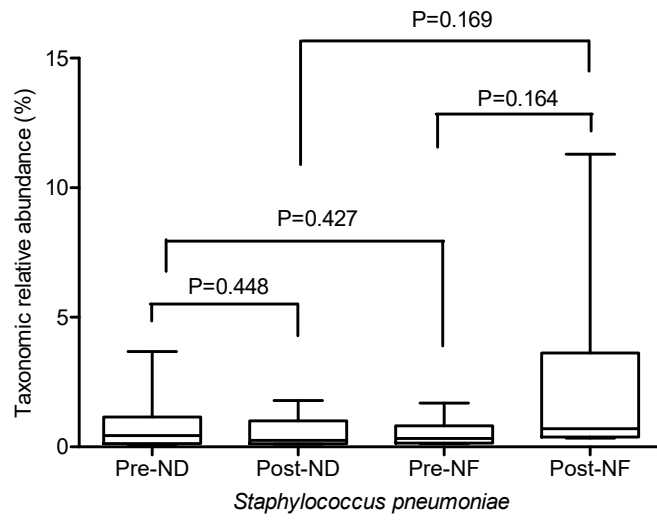
Phylum	Genus	Group	Abundance (%)	<i>P</i> value	Phylum	Genus	Group	Abundance (%)	<i>P</i> value	
Firmicutes	<i>Staphylococcus</i> *	Post-ND	26.32 ± 12.06	0.027	Proteobacteria	<i>Burkholderia</i>	Post-ND	7.10 ± 3.01	0.462	
		Post-NF	13.18 ± 8.85				Post-NF	8.42 ± 5.56		
	<i>Streptococcus</i>	Post-ND	1.63 ± 1.08	0.208		<i>Sphingomonas</i>	Post-ND	3.29 ± 1.01	0.462	
		Post-NF	4.25 ± 4.29				Post-NF	3.83 ± 2.02		
	<i>Thermoanaerobacterium</i>	Post-ND	3.74 ± 2.05	0.074		<i>Enterobacteriaceae_g</i>	Post-ND	4.11 ± 2.61	0.753	
		Post-NF	6.67 ± 4.27				Post-NF	1.06 ± 1.02		
	<i>Anaerococcus</i>	Post-ND	2.53 ± 2.07	0.916		Actinobacteria	<i>Cutibacterium</i>	Post-ND	13.69 ± 12.27	0.916
		Post-NF	2.33 ± 2.57					Post-NF	11.44 ± 8.17	
	Bacteroidetes	<i>Prevotella</i>	Post-ND	1.60 ± 1.17		1.00	<i>Corynebacterium</i>	Post-ND	1.54 ± 0.79	0.674
			Post-NF	1.72 ± 2.24				Post-NF	0.93 ± 0.51	
						<i>Lawsonella</i>	Post-ND	1.77 ± 2.76	0.600	
							Post-NF	3.08 ± 2.05		Post-NF

The asterisks indicate significant differences (**p* < 0.05) between the NF and the ND groups in the indicated Genus.



	Microbial number (counts/DNA)		Microbial number (counts/DNA)		
	Post-ND	Post-NF	Post-ND	Post-NF	
<i>Caulobacteraceae</i> JPOM_g PAC001012_s	172.16	367.23	<i>Neisseriaceae</i> FM873692_g FM873692_s	898.67	778.59
<i>Xanthomonas citri</i> group	-	712.39	<i>Thermoanaerobacterium thermosulfurigenes</i> group	397.36	1032.340
<i>Streptococcus pneumoniae</i> group	-	400.33	<i>Staphylococcus aureus</i> group	2844.35	2091.47
<i>Sphingomonas pruni</i> group	333.48	578.42	<i>Neisseria perflava</i> group	-	244.29
<i>Lawsonella clevelandensis</i>	191.64	488.59	<i>Enterobacteriaceae</i> group	477.17	170.22
<i>Enhydrobacter aerosaccus</i> group	146.75	181.55	<i>Cutibacterium acnes</i> group	1459.53	1768.37
<i>Burkholderia cepacia</i> group	769.83	1339.67	<i>Anaerococcus nagyae</i> group	202.47	278.97
<i>Dolosigranulum pigrum</i> group	207.89	-	ETC (under 1% in average)	2768.56	5328.75

Sup. 4. The relative abundance of the main species of bacteria in post-treatment groups (post-ND and post-NF)



Sup. 5. *Staphylococcus pneumoniae* difference within and between groups. ND (control serum); NF (cosmetic serum containing GOS).