

**Relationship of tongue coating microbiome on volatile sulfur compounds in  
healthy and halitosis adults**

Wei Ye, Yu Zhang, Mei He, Ce Zhu, Xi-Ping Feng

Table S3. Comparisons of tongue microbiota between the halitosis and control groups  
at the genus level

Species name	case- Mean(%)	case- Sd(%)	control- Mean(%)	control- Sd(%)	Pvalue
g__Neisseria	12.94	6.093	17.91	9.633	0.1858
g__Streptococcus	11.74	4.117	14.52	9.113	0.5934
g__Prevotella_7	10.81	5.54	10.67	7.585	0.6592
g__Veillonella	9.15	5.112	8.719	5.562	0.9076
g__Haemophilus	6.106	4.312	8.187	6.417	0.3904
g__Rothia	5.868	4.083	7.541	5.063	0.3653
g__Actinomyces	7.17	4.628	5.169	2.509	0.3653
g__Fusobacterium	5.404	2.706	4.49	4.513	0.2962
g__Porphyromonas	3.057	2.973	3.137	3.075	0.9815
<b>g__Prevotella</b>	3.352	1.499	1.632	1.332	<b>0.004975</b>
g__Klebsiella	2.315	6.327	2.544	8.799	1
<b>g__Leptotrichia</b>	3.237	2.268	1.611	1.534	<b>0.0148</b>
<b>g__Alloprevotella</b>	3.181	1.626	1.564	2.299	<b>0.004975</b>
g__Granulicatella	1.818	1.165	2.411	1.242	0.2365
g__Lachnoanaerobaculum	1.031	0.7584	1.135	0.9273	0.6592
g__Pseudomonas	2.122	8.486	0	0	0.1304
g__Serratia	2.066	8.264	0	0	0.4273
g__Gemella	0.7586	0.6961	0.5729	0.5829	0.3413
g__Capnocytophaga	0.08543	0.07193	1.156	2.988	0.2186
g__norank_p__Saccharibacteria	0.5021	0.457	0.7255	0.6212	0.2017
g__Oribacterium	0.5789	0.3659	0.6471	0.4945	0.8709
g__Atopobium	0.3411	0.3454	0.6621	1.209	0.3904
g__Solobacterium	0.6319	0.4729	0.3563	0.2659	0.1092
<b>g__Peptostreptococcus</b>	0.753	0.3788	0.1754	0.1881	<b>5.93E-05</b>
g__Prevotella_6	0.4527	0.6401	0.4669	0.639	0.3182
<b>g__Stomatobaculum</b>	0.5956	0.5279	0.1972	0.2226	<b>0.00998</b>
g__Moraxella	0.02516	0.06837	0.7299	2.499	0.698
g__Campylobacter	0.2183	0.1737	0.4678	0.4758	0.1092
g__Megasphaera	0.4767	0.9398	0.2087	0.3524	0.109
<b>g__[Eubacterium]_nodatum_group</b>	0.4683	0.2801	0.1099	0.06712	<b>1.75E-05</b>
<b>g__norank_f__Lachnospiraceae</b>	0.3304	0.5195	0.1616	0.2743	<b>0.07731</b>
g__unclassified_o__Micrococcales	0.257	0.169	0.1948	0.153	0.3653
g__Prevotella_2	0.2001	0.1963	0.1872	0.2324	0.6424
g__norank_p__SR1__Absconditabacteria_	0.273	0.6228	0.06639	0.133	0.1308

g__Parvimonas	0.2048	0.21	0.1087	0.1496	0.0993
g__unclassified_f__Neisseriaceae	0.1341	0.1261	0.1271	0.1312	0.7985
g__Johnsonella	0.06084	0.08059	0.1536	0.436	0.7611
g__norank_f__16d63.751	0.1108	0.07871	0.0972	0.08062	0.7277
g__Aggregatibacter	0.07854	0.0632	0.101	0.1482	0.6592
g__Selenomonas_3	0.1184	0.213	0.04983	0.06832	0.307
g__unclassified_f__Pasteurellaceae	0.08868	0.07758	0.06956	0.04723	0.6259
g__Catonella	0.08446	0.05329	0.06102	0.04776	0.1199
g__norank_f__P5D1-392	0.07287	0.05529	0.07162	0.06152	0.9445
<b>g__Bergeyella</b>	0.03497	0.02447	0.09892	0.08408	<b>0.02744</b>
g__Ruminococcaceae_UCG-014	0.06312	0.06405	0.05783	0.03728	0.5934
g__Tannerella	0.03636	0.04924	0.07927	0.2099	0.5929
g__unclassified_o__Lactobacillales	0.06245	0.04353	0.04316	0.0273	0.1858
g__Lautropia	0.03469	0.03422	0.07005	0.07571	0.1436
g__unclassified_k__norank	0.03727	0.0394	0.03413	0.04466	0.6255
g__Candidatus_Saccharimonas	0.03108	0.03767	0.03102	0.02827	0.5932
<b>g__Mogibacterium</b>	0.04223	0.031	0.01498	0.01123	<b>0.003199</b>
<b>g__Eikenella</b>	0.005161	0.00684	0.05069	0.08718	<b>0.004649</b>
g__Corynebacterium	0.01949	0.01455	0.03619	0.04989	0.7806
g__[Eubacterium]_yurii_group	0.03433	0.03651	0.02029	0.0205	0.4706
<b>g__unclassified_o__Bacteroidales</b>	0.03188	0.03336	0.01773	0.02772	<b>0.04081</b>
g__Actinobacillus	0.0171	0.01996	0.03024	0.0514	1
<b>g__Peptococcus</b>	0.03094	0.01454	0.01372	0.01604	<b>0.01474</b>
g__Treponema_2	0.01793	0.02161	0.02232	0.03373	0.8887
g__norank_p__Gracilibacteria	0.003683	0.009406	0.03437	0.07295	0.07414
g__norank_f__Family_XIII	0.02647	0.03002	0.008557	0.01576	0.07253
g__Filifactor	0.0189	0.01617	0.00814	0.01031	0.05715
g__Prevotella_1	0.007396	0.01419	0.01664	0.04724	0.554
g__norank_f__Porphyromonadaceae	0.005516	0.01006	0.01656	0.03058	0.1758
g__Dialister	0.01371	0.01483	0.007611	0.009312	0.2716
g__Butyrivibrio_2	0.014	0.01531	0.005503	0.007404	0.06887
g__Selenomonas	0.01393	0.01735	0.004825	0.005165	0.09772
<b>g__norank_o__Mollicutes_RF9</b>	0.01443	0.01561	0.004107	0.008745	<b>0.03141</b>
<b>g__Comamonas</b>	0.00042	0.001225	0.01377	0.03245	<b>0.01088</b>
g__unclassified_o__Bacillales	0.00851	0.007622	0.004773	0.005244	0.1295
g__Cardiobacterium	0.004248	0.003718	0.008908	0.0128	0.4988
g__[Eubacterium]_brachy_group	0.00613	0.007019	0.005278	0.01218	0.2604
g__norank_f__Veillonellaceae	0.008841	0.02386	0.002395	0.006352	0.6003
g__Propionibacterium	0.005743	0.005493	0.005013	0.005704	0.6219
g__Centipeda	0.006071	0.01018	0.004492	0.005717	0.9614
g__norank_f__Actinomycetaceae	0.004793	0.00473	0.003956	0.003894	0.7575
g__norank_c__Cyanobacteria	0.003461	0.01084	0.005118	0.01646	0.7959
g__Abiotrophia	0.004749	0.01452	0.003648	0.01015	0.8887
<b>g__Family_XIII_UCG-001</b>	0.006303	0.006327	0.000686	0.001023	<b>0.00201</b>

g__Lactobacillus	0.000717	0.001724	0.005826	0.01071	0.0779
g__Olsenella	0.004275	0.005985	0.002102	0.003632	0.3252
g__Alysiella	0.003003	0.005923	0.003016	0.006567	0.5949
g__norank_f__Neisseriaceae	0.002118	0.003678	0.003447	0.008006	0.8075
g__Christensenellaceae_R-7_group	0.004076	0.01452	0.001349	0.004015	0.862
g__Fretibacterium	0.001829	0.004337	0.003272	0.005772	0.626
g__Anaeroglobus	0.002573	0.005643	0.00224	0.003239	0.8126
g__Acinetobacter	0.004736	0.01894	0	0	0.4273
g__norank_f__Bacteroidales_S24-7_group	9.12E-05	0.000365	0.004464	0.01546	0.8353
g__Kingella	0.001314	0.0017	0.002893	0.004971	0.8598
g__Defluviitaleaceae_UCG-011	0.001827	0.002235	0.002206	0.003469	0.8204
g__Shuttleworthia	0.002709	0.003159	0.001026	0.002545	0.1474
g__Mobiluncus	0.002116	0.003741	0.001485	0.005144	0.2192
<b>g__norank_f__Lentimicrobiaceae</b>	<b>0.001369</b>	<b>0.005477</b>	<b>0.001769</b>	<b>0.002333</b>	<b>0.01878</b>
g__unclassified_f__Prevotellaceae	0.002177	0.002767	0.000811	0.002196	0.06148
g__Simonsiella	0.002757	0.006657	0	0	0.0731
g__Bifidobacterium	0.00141	0.002548	0.001318	0.00268	0.5949
g__Faucicola	0.002543	0.01017	0	0	0.4273
g__Escherichia-Shigella	0.00095	0.001567	0.001563	0.002712	0.8447
g__Streptobacillus	0.001535	0.004339	0.000831	0.001624	0.8462
g__Slackia	0.001573	0.00237	0.00067	0.00137	0.2554
g__norank_f__Leptotrichiaceae	0.001861	0.006292	0.000311	0.001079	0.6973
g__Bulleidia	0.00073	0.001642	0.001358	0.004156	0.917
g__Mycoplasma	0.001098	0.001781	0.000934	0.001551	0.8887
g__unclassified_p__Bacteroidetes	0.001047	0.001766	0.000945	0.00165	0.9331
g__unclassified_f__Lachnospiraceae	0.000655	0.001253	0.001252	0.002222	0.5411
g__Selenomonas_4	0.000911	0.001749	0.000778	0.001817	0.6742
g__Bacteroides	0.000498	0.00108	0.001168	0.00336	0.9723
g__Howardella	0.001233	0.002546	0.000367	0.001273	0.1959
g__unclassified_f__Veillonellaceae	0.0009	0.001939	0.00068	0.001398	0.9271
g__[Eubacterium]_saphenum_group	0.000311	0.000882	0.001184	0.002803	0.3849
g__Cryptobacterium	0.000418	0.00095	0.000739	0.00196	1
g__[Eubacterium]_rectale_group	0.000425	0.001699	0.000575	0.001436	0.4625
g__norank_f__Prevotellaceae	0.000916	0.001953	0	0	0.0731
g__Rikenellaceae_RC9_gut_group	0.000148	0.000593	0.000742	0.001507	0.1948
g__Scardovia	0.000154	0.000616	0.000714	0.001432	0.1948
g__Pseudoramibacter	0	0	0.00075	0.002102	0.1072
g__Roseburia	0.000346	0.001385	0.000367	0.001273	0.9172
g__Ralstonia	0	0	0.000627	0.00169	0.1072
g__Eggerthia	0.000505	0.001094	0	0	0.1304
g__norank_o__NB1-n	0.000131	0.000525	0.000367	0.001273	0.8353
g__Erysipelotrichaceae_UCG-003	0	0	0.000359	0.00084	0.1072
g__Erysipelotrichaceae_UCG-006	0	0	0.000342	0.000807	0.1072
g__Suttonella	0	0	0.000336	0.000796	0.1072

---

g__Aestuariimicrobium	0	0	0.00033	0.001143	0.279
g__norank_f__Clostridiales_vadinBB60_group	0.000142	0.000566	0.000154	0.000535	0.9172
g__Enterococcus	0	0	0.000184	0.000636	0.279
g__Ezakiella	0.000173	0.000692	0	0	0.4273
g__norank_f__Bacteroidales_BS11_gut_group	0.000149	0.000597	0	0	0.4273
g__norank_f__Rhodospirillaceae	0.000131	0.000525	0	0	0.4273
g__Acholeplasma	0.000116	0.000462	0	0	0.4273

---