

S1 Table. Species composition of biofilms developed from pooled CCS inoculums in the Bioflux biofilm system containing flowing CFS supplemented with or without 500 mM LAHCl. Average percentage abundance of each species based on bacterial tag-encoded FLX amplicon pyrosequencing of oral biofilms grown for 20 h in three Bioflux microfluidic channels exposed to flowing CFS (control) and in three Bioflux microfluidic channels exposed to flowing CFS supplemented with 500 mM LAHCl. Unspeciated sequences are assigned to respective genera and highlighted in bold. Values are rounded to two decimal places. It should be noted that relative abundances are subject to primer bias and are therefore approximate.

Species	Average across 3 channels (CFS)	Standard deviation across 3 channels (CFS)	Average across 3 channels (500 mM LAHCl+CFS)	Standard deviation across 3 channels (500 mM LAHCl+CFS)
<i>Abiotrophia defectiva</i>	1.36	1.19	0.26	0.01
Unspeciated Acidimicrobiales	0.00	0.00	0.08	0.08
Unspeciated Acidovorax	0.01	0.01	0.53	0.38
<i>Acinetobacter genomosp.3</i>	0.00	0.00	0.02	0.03
<i>Acinetobacter schindleri</i>	0.01	0.01	0.33	0.09
<i>Actinomyces graevenitzi</i>	0.00	0.00	0.35	0.11
<i>Actinomyces lingnae</i>	0.00	0.00	0.24	0.19
<i>Actinomyces naeslundii</i>	0.00	0.00	0.06	0.05
<i>Actinomyces odontolyticus</i>	0.03	0.04	1.48	0.54
<i>Actinomyces oris</i>	0.00	0.00	0.02	0.03
<i>Actinomyces viscosus</i>	0.00	0.00	0.02	0.03
<i>Aggregatibacter aphrophilus</i>	0.00	0.00	0.05	0.05
<i>Aggregatibacter segnis</i>	8.16	7.07	0.33	0.24
<i>Atopobium parvulum</i>	0.06	0.10	0.02	0.03
Unspeciated Bergeyella	0.09	0.07	0.20	0.13
<i>Bosea vestrisii</i>	0.00	0.00	0.05	0.08
<i>Bulleidia solobacterium moorei</i>	0.01	0.01	0.34	0.39
<i>Campylobacter concisus</i>	0.02	0.02	1.15	0.78
<i>Campylobacter mucosalis</i>	0.00	0.00	0.09	0.09
<i>Campylobacter showae</i>	0.00	0.01	0.23	0.07
<i>Capnocytophaga gingivalis</i>	0.04	0.01	0.01	0.02
<i>Capnocytophaga leadbetteri</i>	0.06	0.02	0.06	0.07
<i>Capnocytophaga sputigena</i>	0.15	0.14	0.18	0.16
Unspeciated Capnocytophaga	0.08	0.02	0.03	0.04
<i>Catonella morbi</i>	0.00	0.00	0.12	0.07
<i>Chryseobacterium stagni</i>	0.01	0.02	0.00	0.00
<i>Comamonas denitrificans</i>	0.01	0.01	0.07	0.11
<i>Dialister invisus</i>	0.00	0.00	0.02	0.04
<i>Eikenella corrodens</i>	0.43	0.27	0.14	0.12
<i>Escherichia coli</i>	0.01	0.01	0.01	0.01
<i>Escherichia coli</i> O26:H11	0.00	0.01	0.64	0.79
<i>Escherichia fergusonii</i>	0.00	0.00	0.03	0.03
<i>Eubacterium saburreum</i>	0.01	0.02	0.24	0.18
Unspeciated Flavobacteriaceae	0.03	0.06	0.43	0.42
<i>Fusobacterium nucleatum</i>	0.00	0.01	0.52	0.87
<i>Fusobacterium periodonticum</i>	0.05	0.04	5.36	1.06
<i>Gemella haemolysans</i>	0.05	0.04	0.39	0.36
<i>Gemella morbillorum</i>	0.16	0.03	0.19	0.05
<i>Gemella sanguinis</i>	0.40	0.39	1.05	0.80
GN02 (candidate division)	0.00	0.00	0.03	0.05
<i>Granulicatella adiacens</i>	9.45	3.04	1.72	0.45
<i>Granulicatella elegans</i>	4.38	3.36	2.19	0.93
<i>Granulicatella paradiacens</i>	0.18	0.01	0.05	0.02
<i>Granulicatella</i> spp.	0.37	0.12	0.10	0.17
<i>Haemophilus haemolyticus</i>	0.00	0.00	0.03	0.06
<i>Haemophilus parainfluenzae</i>	3.17	2.60	3.51	1.22
<i>Haemophilus quentini</i>	0.00	0.00	0.13	0.18
Unspeciated Haemophilus	1.07	0.99	0.10	0.01
<i>Herbaspirillum putei</i>	0.01	0.01	0.60	0.52
<i>Kingella oralis</i>	0.00	0.01	0.14	0.13

Unspeciated Kluyvera	0.00	0.00	0.01	0.02
Unspeciated Lachnospira	0.00	0.00	0.08	0.09
<i>Leptotrichia buccalis</i>	0.00	0.00	0.11	0.16
Unspeciated Leptotrichia	0.06	0.04	0.41	0.31
<i>Leptotrichia trevisanii</i>	0.00	0.00	0.91	0.11
Unspeciated Massilia	0.02	0.02	0.00	0.00
Unspeciated Microbacterium	0.00	0.00	0.30	0.12
<i>Micrococcus luteus</i>	0.00	0.01	0.00	0.00
<i>Mogibacterium pumilum</i>	0.00	0.00	0.16	0.14
Unspeciated Moryella	0.01	0.02	0.01	0.02
<i>Neisseria cinerea</i>	0.00	0.00	0.39	0.36
<i>Neisseria elongata</i>	0.02	0.02	0.01	0.01
<i>Neisseria flavescens</i>	28.10	10.31	5.54	2.13
<i>Neisseria meningitidis</i>	4.22	1.01	0.84	0.41
<i>Neisseria mucosa</i>	0.14	0.15	0.00	0.00
<i>Neisseria sicca</i>	2.62	2.37	0.17	0.09
<i>Neisseria subflava</i>	6.63	2.31	1.11	0.55
Unspeciated Neisseria	8.03	8.99	0.56	0.21
<i>Oribacterium sinus</i>	0.00	0.00	0.24	0.23
<i>Parvimonas micra</i>	0.02	0.02	0.09	0.08
<i>Peptostreptococcaceae spp.</i>	0.02	0.02	0.30	0.38
<i>Porphyromonas endodontalis</i>	0.00	0.00	0.04	0.04
Unspeciated Porphyromonas.	3.09	1.79	2.83	0.60
<i>Prevotella histicola</i>	0.00	0.00	0.15	0.17
<i>Prevotella melaninogenica</i>	0.00	0.00	1.79	0.58
<i>Prevotella nanceiensis</i>	0.00	0.00	0.60	0.49
<i>Prevotella pallens</i>	0.01	0.01	0.47	0.20
<i>Prevotella salivae</i>	0.00	0.00	0.52	0.28
<i>Prevotella shahii</i>	0.01	0.01	0.67	0.61
Unspeciated Prevotella	0.01	0.03	0.71	0.09
Unspeciated Pseudobutyrvibrio	0.04	0.06	0.00	0.00
<i>Pseudomonas fluorescens</i>	0.27	0.34	2.46	1.89
<i>Pseudomonas geniculata</i>	0.02	0.02	0.10	0.15
<i>Pseudomonas pseudoalcaligenes</i>	0.00	0.01	0.02	0.04
<i>Pseudomonas trivialis</i>	0.00	0.01	0.00	0.00
<i>Ralstonia pickettii</i>	0.01	0.01	5.89	8.61
<i>Rothia aera</i>	0.00	0.00	0.39	0.04
<i>Rothia mucilaginosa</i>	3.39	3.21	4.70	0.93
Unspeciated Sarcina	0.00	0.00	0.02	0.03
<i>Selenomonas noxia</i>	0.00	0.00	0.04	0.05
<i>Selenomonas sputigena</i>	0.00	0.00	0.06	0.08
Unspeciated Selenomonas	0.00	0.00	1.04	0.30
<i>Shigella flexneri</i>	0.00	0.01	0.16	0.13
<i>Sphingobium yanoikuyae</i>	0.01	0.02	0.01	0.02
<i>Streptococcus australis</i>	0.53	0.19	3.60	2.33
<i>Streptococcus cristatus</i>	0.00	0.00	0.14	0.15
<i>Streptococcus genomosp. C3</i>	0.03	0.02	0.00	0.00
<i>Streptococcus genomosp. C7</i>	0.00	0.00	0.08	0.11
<i>Streptococcus gordonii</i>	0.09	0.00	0.06	0.11
<i>Streptococcus infantis</i>	2.03	0.68	4.33	0.44
<i>Streptococcus intermedius</i>	0.00	0.00	0.20	0.09
<i>Streptococcus mitis</i>	1.16	0.35	1.45	0.28
<i>Streptococcus oralis</i>	6.25	3.20	5.84	1.50
<i>Streptococcus parasanguinis</i>	0.30	0.13	1.26	0.31
<i>Streptococcus parasanguinis motherC3</i>	0.32	0.26	2.42	0.61
<i>Streptococcus pseudopneumoniae</i>	0.09	0.08	0.18	0.07
<i>Streptococcus salivarius</i>	0.07	0.07	1.61	0.29
<i>Streptococcus sanguinis</i>	1.01	0.62	1.02	0.43
Unspeciated Streptococcus	1.18	0.48	0.83	0.30
Unspeciated subdoligranulum	0.01	0.02	0.00	0.00
Unspeciated Tannerella	0.05	0.04	0.50	0.39
Unspeciated Tepidimonas	0.00	0.00	0.02	0.04
TM7 (candidate division)	0.01	0.01	0.17	0.29
Unspeciated Tumbacillus	0.02	0.04	0.00	0.00
Unspeciated Variovorax	0.03	0.03	0.54	0.37
<i>Veillonella dispar</i>	0.05	0.01	2.83	0.64
<i>Veillonella parvula</i>	0.10	0.09	7.50	1.70
Unspeciated Veillonella.	0.07	0.05	7.62	1.74