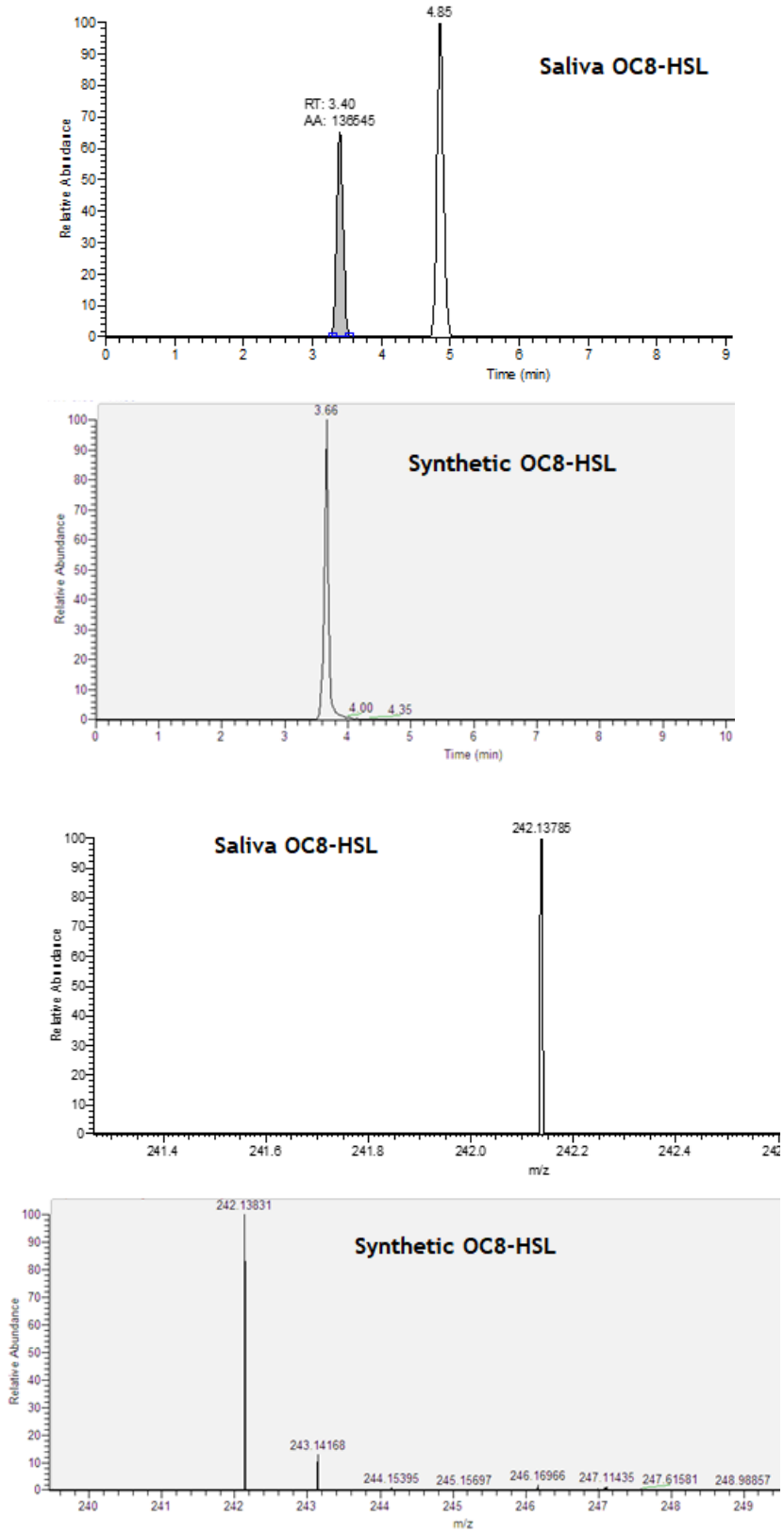
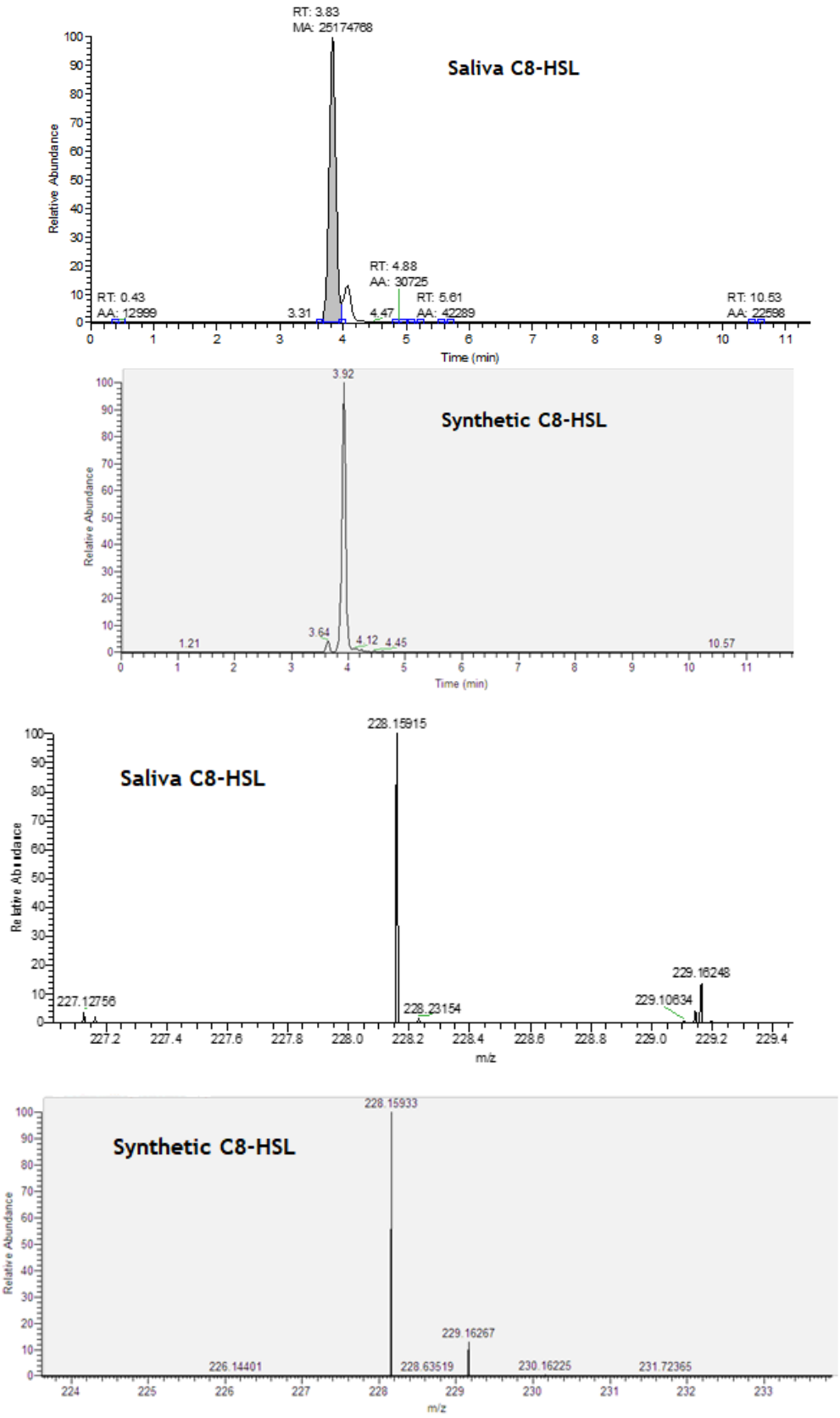
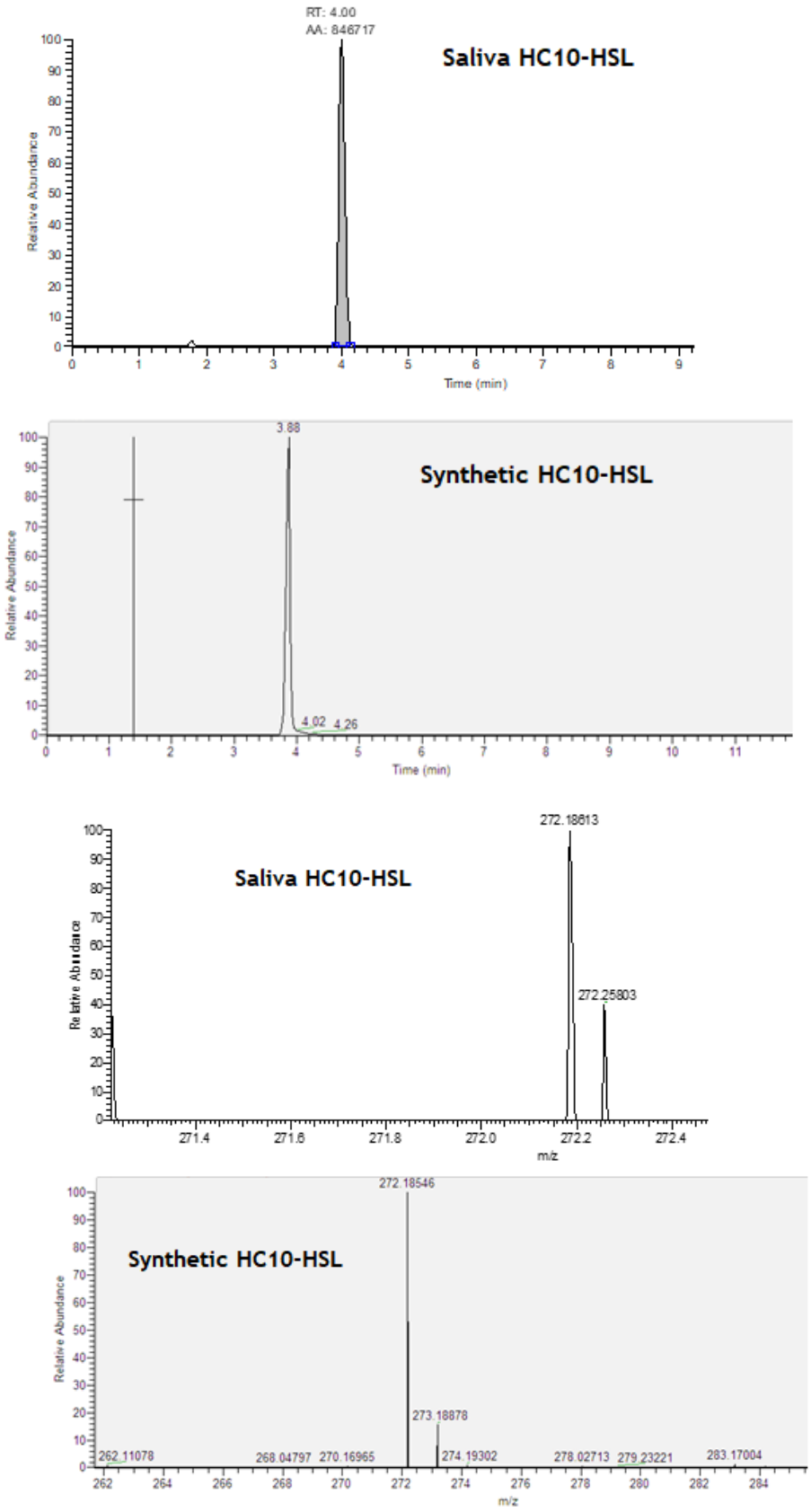


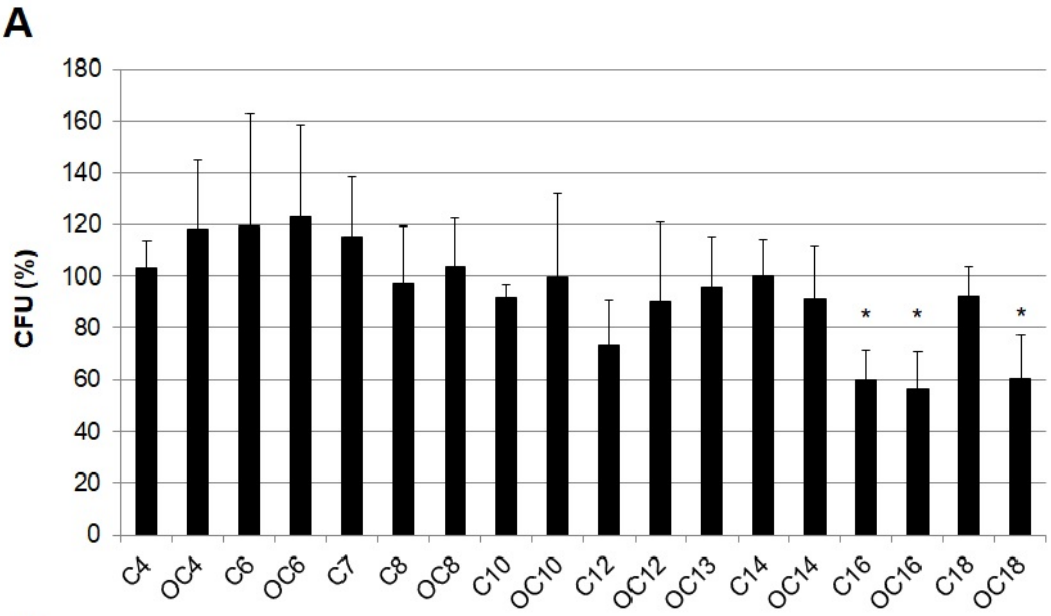
Supplementary Figure 1. Ion chromatograms from HPLC-MS analysis of OC8-HSL(C) with retention time and identification of peaks detected in saliva samples and synthetic standards.

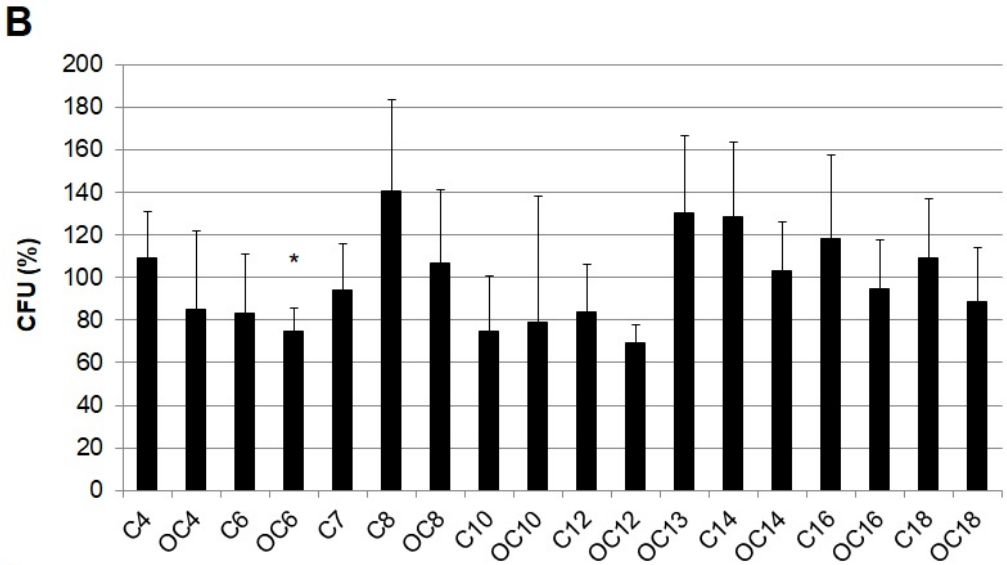


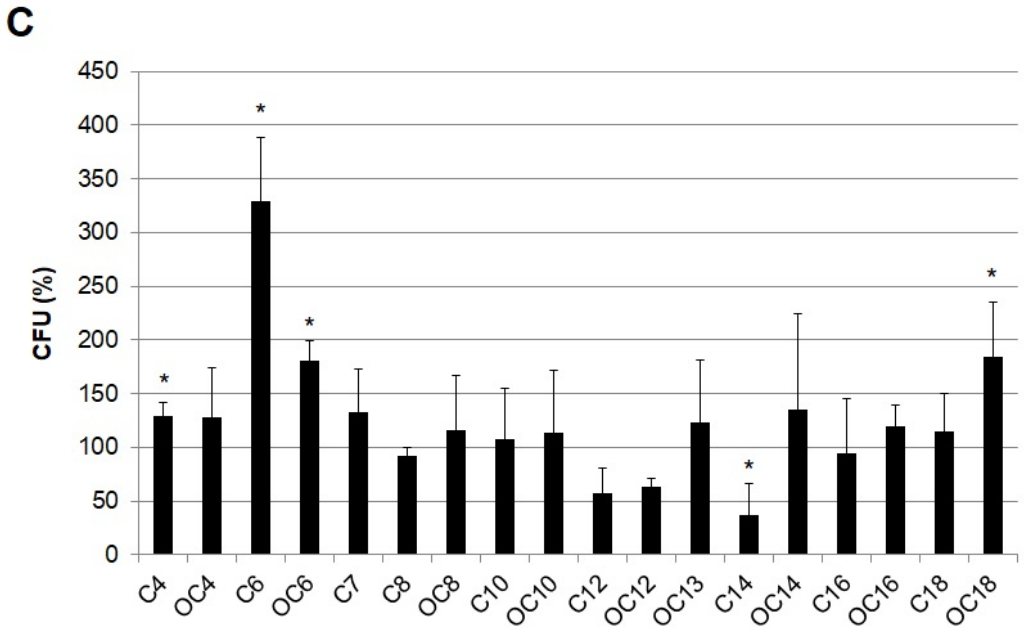
Supplementary Figure 2. Ion chromatograms from HPLC-MS analysis of C8-HSL with retention time and identification of peaks detected in saliva samples and synthetic standards.



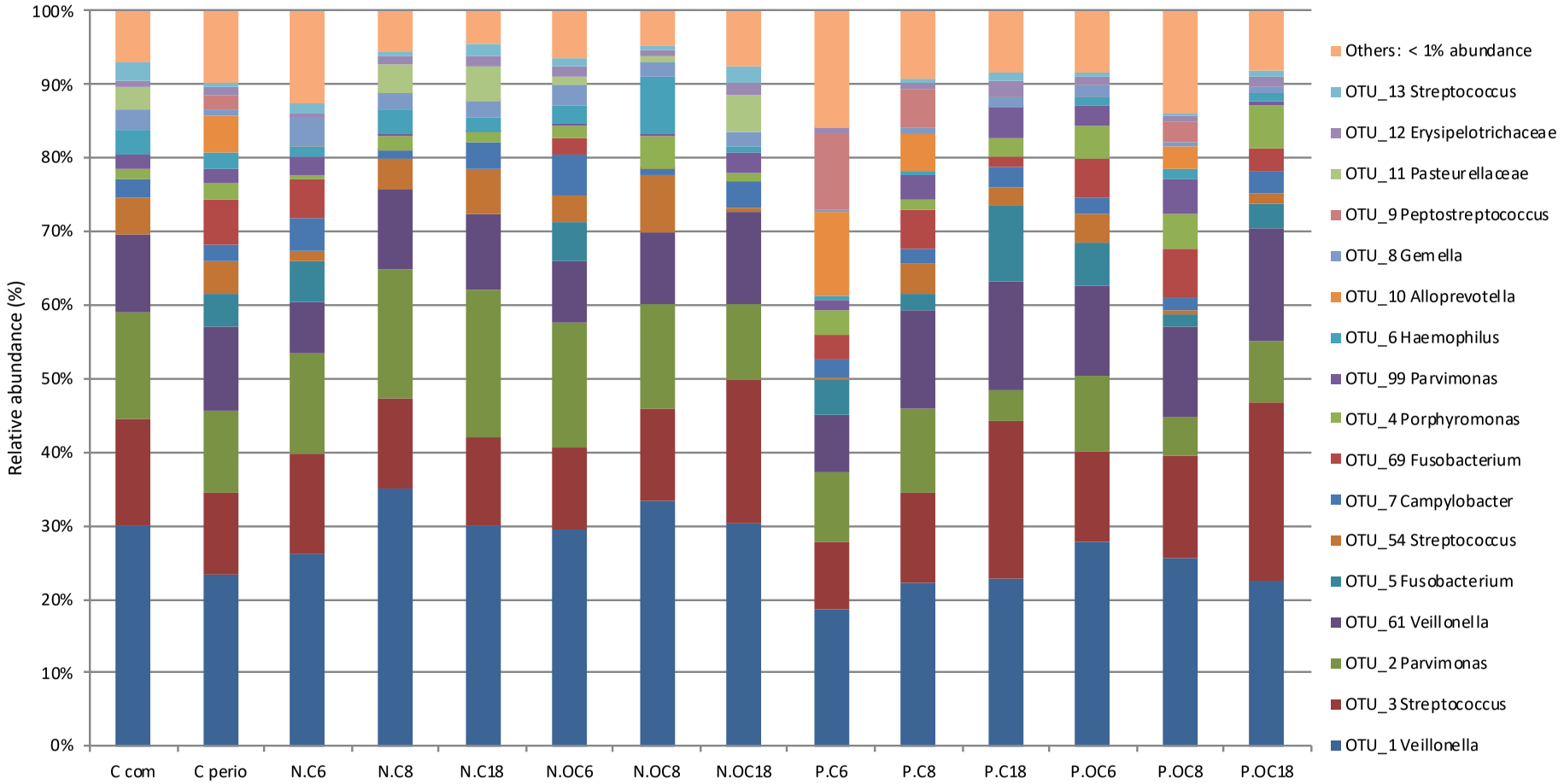
Supplementary Figure 3. Ion chromatograms from HPLC-MS analysis C10-HSL with retention time and identification of peaks detected in saliva samples and synthetic standards.


A
CFU (%)
180
160
140
120
100
80
60
40
20
0
C4
OC4
C6
OC6
C7
C8
OC8
C10
OC10
C12
OC12
OC13
C14
OC14
C16
OC16
C18
OC18

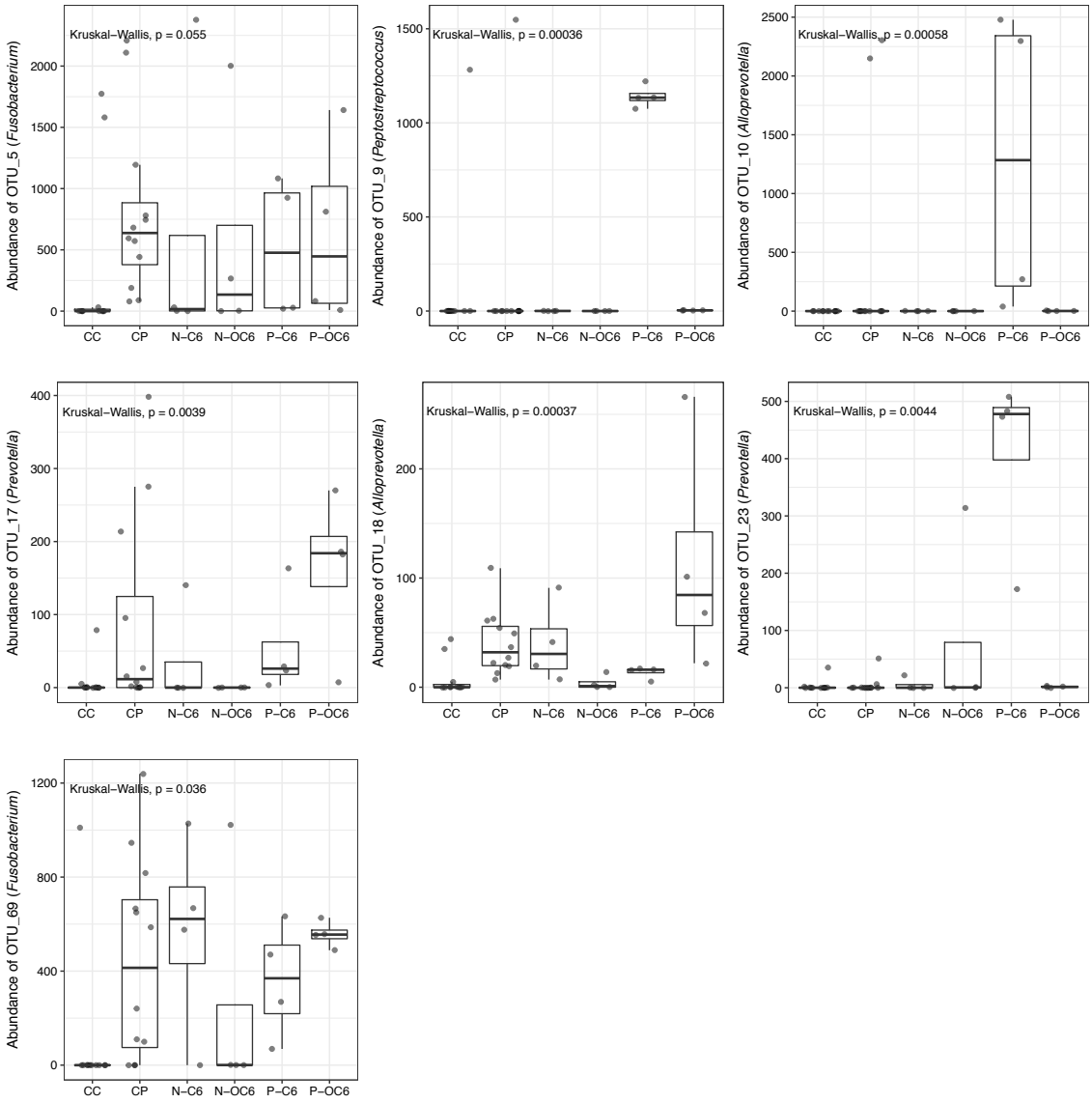

B
CFU (%)
200
180
160
140
120
100
80
60
40
20
0
C4
OC4
C6
OC6
C7
C8
OC8
C10
OC10
C12
OC12
OC13
C14
OC14
C16
OC16
C18
OC18


C
CFU (%)
450
400
350
300
250
200
150
100
50
0
C4
OC4
C6
OC6
C7
C8
OC8
C10
OC10
C12
OC12
OC13
C14
OC14
C16
OC16
C18
OC18

Supplementary Figure 4. Effect of different AHLs (1 µM) on cariogenic (A), commensal (B) and periodontal (C) biofilm formation (CFUs/biofilm). Data are presented as the means ± SD (n=4). The significant difference compared to untreated controls was indicated with *(Welch´s Test, $p<0.05$) and **(Welch´s Test, $p<0.01$).


100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Relative abundance (%)
C com
C perio
N.C6
N.C8
N.C18
N.OC6
N.OC8
N.OC18
P.C6
P.C8
P.C18
P.OC6
P.OC8
P.OC18
Others: < 1% abundance
OTU_13 Streptococcus
OTU_12 Erysipelotrichaceae
OTU_11 Pasteurellaceae
OTU_9 Peptostreptococcus
OTU_8 Gemella
OTU_10 Alloprevotella
OTU_6 Haemophilus
OTU_99 Parvimonas
OTU_4 Porphyromonas
OTU_69 Fusobacterium
OTU_7 Campylobacter
OTU_54 Streptococcus
OTU_5 Fusobacterium
OTU_61 Veillonella
OTU_2 Parvimonas
OTU_3 Streptococcus
OTU_1 Veillonella

Supplementary figure 5. Taxonomic profiles (at OTU-level) depicting the bacterial composition of the *in vitro* oral biofilms in % relative abundance. Filtering was performed based on total OTU abundance over all samples. All OTU's lower than 1% are depicted as "others".



Supplementary Figure 6. Effects of C6 and OC6 addition on individual OTUs responsible for the shift induced by C6 in *in vitro* periodontal biofilms.