**Supplementary Information (SI)**

**Headspace SPME-GC-MS analysis of fecal VOCs:** SPME fiber cleaning was performed for 30 minutes at 300 °C. The fiber was exposed to the stool sample within glass tubes for 30 minutes. It was then injected in the Agilent Single-Quadrupole GC/MS Instrument for 5 minutes, at 280 °C. GC-MS data processing for metabolome analysis (volatile identification and quantification) was carried out using the Agilent data analysis software. Raw GC-MS data files were automatically transferred to servers for storage and further analysis.

VOCs adsorbed on the 75μm CAR/PDMS SPME fiber were thermally injected into an electron impact (70 eV) quadrupole GC/MS (GC-7890B, MSD-5977B, Agilent Technologies, USA). The compounds were separated using SPB-624 capillary column (60 m x 250 μm, 1.4 μm film thickness) and helium (99.999%, Linde) as carrier gas (flow rate of 1.7 mL/min). The column remained at 35°C for 5 minutes, then increased to 180°C (at 4°C/min) for another 20 minutes. The chromatogram run time was 61.25 minutes. The temperatures of the MS transfer line, quadrupole, and ion source were 250, 150, and 230°C, respectively. Full-scan mode with 35-350 amu was selected. The NIST20 spectral library (≥ 80% match factor) allowed compound identification alongside an internal database of VOC standards. Data processing was performed using ChemStation software (Agilent, USA).

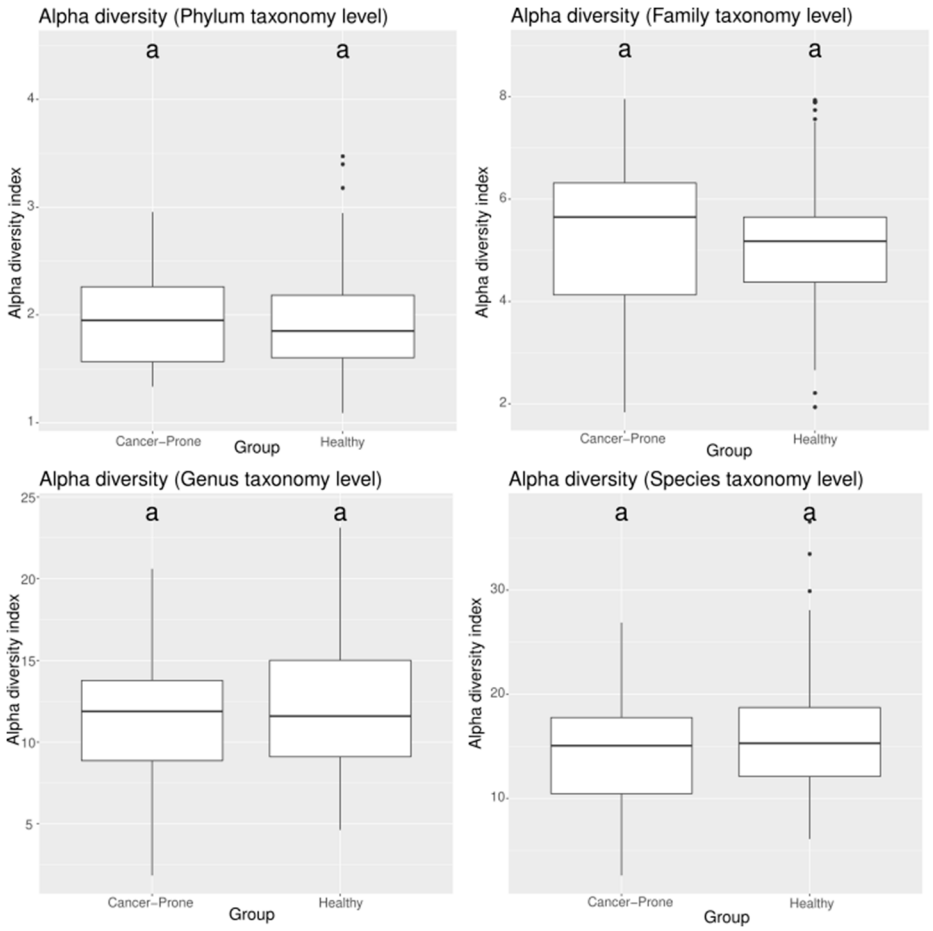


**Figure S1.** Alpha diversity plot. X-axis indicates the cancer-prone (HRA) and healthy (NA) groups and y-axis shows the alpha diversity index calculated for each taxonomic level with inverse Simpson. The mean of the alpha diversity found for each group is shown with the black horizontal line within each box. The results from the Tukey's honest significant difference (HSD) test are shown with the letters above each boxplot. Here, the letters are the same (a-a), which indicates that the alpha diversity index between the groups might not differ.

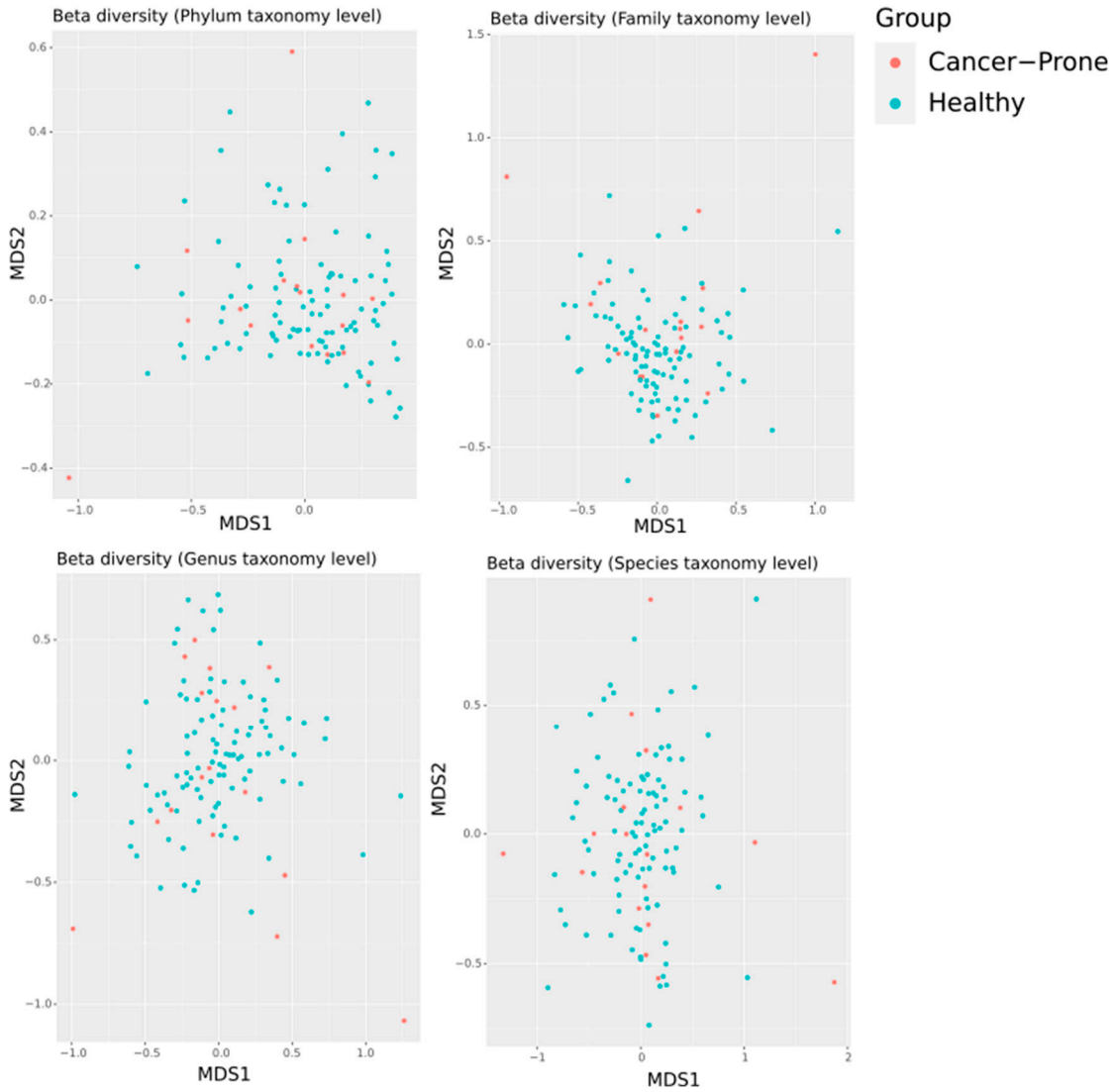


**Figure S2.** Multidimensional scaling (MDS) plot using UniFrac index, based on the relative abundance of the bacteria at the taxonomy level of phylum, family, genus, and species for samples between 17 NA and 100 HRA individuals after 16S metagenomic analysis. Orange and blue dots represent healthy (NA) and cancer-prone (HRA) individuals, respectively.

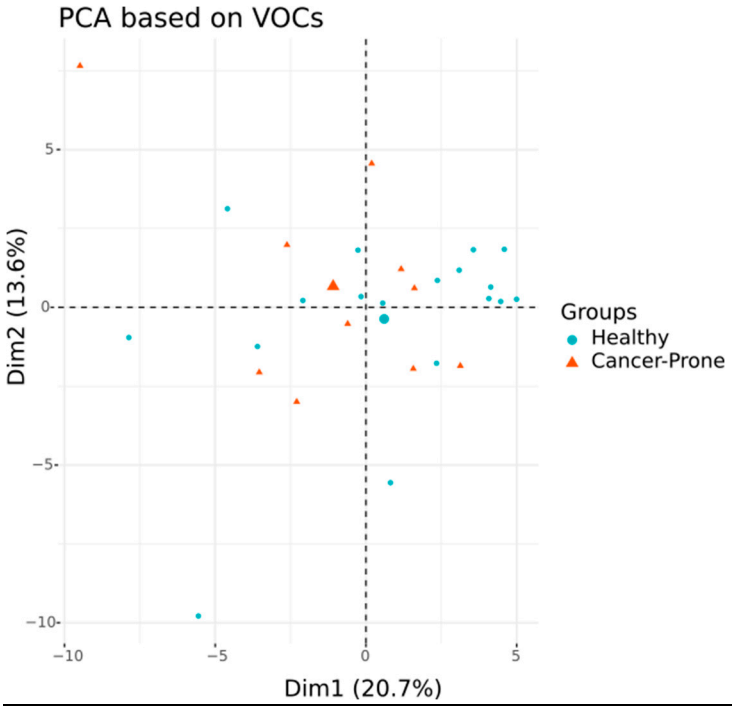


**Figure S3.** Principal component analysis (PCA) of fecal samples based on VOC composition. The plot is based on the normalized GC-MS values (Shapiro–Wilk normality test) of the 71 emitted volatiles for a total of 28 fecal samples classified in the NA group (18 subjects) and the HRA group (10 subjects). Orange triangles and blue dots represent healthy (NA) and cancer-prone (HRA) individuals, respectively. The big orange triangle and big blue dot represent the average healthy (NA) and cancer-prone (HRA) individuals, respectively.

**Table S1.** Statistically significant association between VOCs and subject groups. Information about the *p*-value, population size, and the mean value for each group is shown for all the statistically significant VOCs.

| **VOCs** | ***P*-value** | **HRA samples** | **NA samples** | **HRA mean** | **NA mean** |
|---|---|---|---|---|---|
| Methyl propionate | 0,0466 | 10 | 18 | 0,7322 | 0,3475 |
| Methyl butyrate | 0,0370 | 10 | 18 | 2,2473 | 1,2484 |
| Isobutyric acid | 0,0393 | 10 | 18 | 0,0606 | 0,0402 |
| Butyl methyl ketone (2-Hexanone) | 0,0051 | 10 | 18 | 0,0541 | 0,0136 |
| Ethyl acetone (2-Pentanone) | 0,0452 | 10 | 18 | 0,1672 | 0,0956 |

**Table S2.** Statistically significant interactions between relative abundance of bacteria at the family level and VOCs. P-value, population size, mean relative abundance of FBFs, and mean value of VOCs for each group is also shown. The mean values were calculated based on the number of subjects used for the interaction test, that is, n=28 (NA=18 and HRA=10).

| **FAMILY TAXONOMY LEVEL** | | | | | | | |
|---|---|---|---|---|---|---|---|
| **FBFs** | **VOC** | ***P*-value of interaction** | **no.** | **Mean FBF value in HRA** | **Mean FBF value in NA** | **Mean VOC value in HRA** | **Mean VOC value in NA** |
| *Acidaminococcaceae* | D-Limonene | 0,0333 | 28 | 2,1078 | 2,5298 | 0,0606 | 0,0402 |
| | Isobutyric acid | 0,0226 | 28 | 2,1078 | 2,5298 | 0,1755 | 0,1447 |
| *Bacteroidaceae* | Isovaleraldehyde (3-Methylbutanal) | 0,0188 | 28 | 13,6112 | 10,8085 | 0,0265 | 0,0649 |
| | 2-Methylbutyraldehyde (2-Methylbutanal) | 0,0383 | 28 | 13,6112 | 10,8085 | 0,0561 | 0,0338 |
| | Acetaldehyde | 0,0097 | 28 | 13,6112 | 10,8085 | 0,1424 | 0,1516 |
| | Acetic acid | 0,0132 | 28 | 13,6112 | 10,8085 | 0,4298 | 0,2981 |
| | Butanone | 0,0159 | 28 | 13,6112 | 10,8085 | 0,1973 | 0,2447 |
| | Isobutyraldehyde | 0,0144 | 28 | 13,6112 | 10,8085 | 0,3416 | 0,2078 |
| | Isobutyric acid | 0,0314 | 28 | 13,6112 | 10,8085 | 2,2473 | 1,2484 |
| | Methyl butyrate | 0,0364 | 28 | 13,6112 | 10,8085 | 0,0606 | 0,0402 |
| | Methyl cyclohexanecarboxylate | 0,0483 | 28 | 13,6112 | 10,8085 | 0,0265 | 0,0265 |
| | Propyl butyrate | 0,0096 | 28 | 13,6112 | 10,8085 | 0,0860 | 0,0845 |
| *Coriobacteriaceae* | Acetaldehyde | 0,0230 | 28 | 3,2006 | 3,1246 | 0,0265 | 0,0649 |
| | Dimethyl disulfide | 0,0324 | 28 | 3,2006 | 3,1246 | 0,0036 | 0,0035 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Methacrolein | 0,0333 | 28 | 3,2006 | 3,1246 | 0,0054 | 0,0027 |
| | Methyl 4-methylvalerate | 0,0300 | 28 | 3,2006 | 3,1246 | 0,5838 | 0,6092 |
| | Propanal | 0,0067 | 28 | 3,2006 | 3,1246 | 0,0462 | 0,0575 |
| *Enterobacteriaceae* | Acetaldehyde | 0,0486 | 28 | 1,2198 | 1,7108 | 0,0265 | 0,0649 |
| | Methyl 4-methylvalerate | 0,0126 | 28 | 1,2198 | 1,7108 | 0,0036 | 0,0035 |
| | Propanal | 0,0459 | 28 | 1,2198 | 1,7108 | 0,0462 | 0,0575 |
| *Erysipelotrichaceae* | Acetaldehyde | 0,0112 | 28 | 4,6086 | 2,5488 | 0,0265 | 0,0649 |
| | Acetate | 0,0370 | 28 | 4,6086 | 2,5488 | 0,1973 | 0,2447 |
| | Dimethyl disulfide | 0,0459 | 28 | 4,6086 | 2,5488 | 0,5838 | 0,6092 |
| | Isobutyric acid | 0,0286 | 28 | 4,6086 | 2,5488 | 0,0606 | 0,0402 |
| | Isovalerate (Delphinic acid) | 0,0482 | 28 | 4,6086 | 2,5488 | 0,1436 | 0,0892 |
| | Styrene | 0,0143 | 28 | 4,6086 | 2,5488 | 0,0045 | 0,0107 |
| *Eubacteriaceae* | Diacetyl (2,3-Butanedione) | 0,0047 | 28 | 1,7625 | 1,7783 | 0,1214 | 0,1014 |
| | 2-Methylbutyraldehyde (2-Methylbutanal) | 0,0190 | 28 | 1,7625 | 1,7783 | 0,0561 | 0,0338 |
| | Acetone | 0,0277 | 28 | 1,7625 | 1,7783 | 0,0054 | 0,0027 |
| | beta-Pinene | 0,0358 | 28 | 1,7625 | 1,7783 | 0,1135 | 0,1520 |
| | Ethyl acetone (2-Pentanone) | 0,0277 | 28 | 1,7625 | 1,7783 | 0,4298 | 0,2981 |
| | Isobutyraldehyde | 0,0139 | 28 | 1,7625 | 1,7783 | 0,3416 | 0,2078 |
| | Isovalerate (Delphinic acid) | 0,0244 | 28 | 1,7625 | 1,7783 | 0,1672 | 0,0956 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Methacrolein | 0,0120 | 28 | 1,7625 | 1,7783 | 0,0155 | 0,0197 |
| | Methyl cyclohexanecarboxylate | 0,0035 | 28 | 1,7625 | 1,7783 | 0,0860 | 0,0845 |
| *Lachnospiraceae* | Dimethyl trisulfide | 0,0073 | 28 | 26,3654 | 31,9963 | 0,0036 | 0,0035 |
| | Methacrolein | 0,0425 | 28 | 26,3654 | 31,9963 | 0,0054 | 0,0027 |
| | Methyl 4-methylvalerate | 0,0288 | 28 | 26,3654 | 31,9963 | 0,0462 | 0,0575 |
| | Propanal | 0,0362 | 28 | 26,3654 | 31,9963 | 0,2025 | 0,1480 |
| | Propanal | 0,0295 | 28 | 2,8706 | 0,0839 | 0,0036 | 0,0035 |
| | Butyl methyl ketone (2-Hexanone) | 0,0391 | 28 | 2,8706 | 0,0839 | 0,0541 | 0,0136 |
| *Peptostreptococcaceae* | Decane | 0,0280 | 28 | 1,5888 | 1,4099 | 0,0036 | 0,0035 |
| | Isobutyrate | 0,0437 | 28 | 1,5888 | 1,4099 | 0,0151 | 0,0125 |
| | Methacrolein | 0,0377 | 28 | 1,5888 | 1,4099 | 0,0054 | 0,0027 |
| | Methyl cyclohexanecarboxylate | 0,0413 | 28 | 1,5888 | 1,4099 | 0,0606 | 0,0402 |
| | Propanal | 0,0490 | 28 | 1,5888 | 1,4099 | 0,0034 | 0,0045 |
| | Thiourea | 0,0215 | 28 | 1,5888 | 1,4099 | 0,0860 | 0,0845 |
| *Porphyromonadaceae* | Acetaldehyde | 0,0497 | 28 | 1,7777 | 1,5011 | 0,0265 | 0,0649 |
| | Methacrolein | 0,0460 | 28 | 1,7777 | 1,5011 | 0,0162 | 0,0068 |
| | Methanethiol (Methyl mercaptan) | 0,0208 | 28 | 1,7777 | 1,5011 | 0,0054 | 0,0027 |
| *Prevotellaceae* | Isovaleraldehyde (3-Methylbutanal) | 0,0183 | 28 | 7,0502 | 2,8116 | 0,0561 | 0,0338 |
| | 2-Methylbutyraldehyde (2-Methylbutanal) | 0,0167 | 28 | 7,0502 | 2,8116 | 0,4298 | 0,2981 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Acetic acid | 0,0339 | 28 | 7,0502 | 2,8116 | 0,1973 | 0,2447 |
| | Isobutyraldehyde | 0,0104 | 28 | 7,0502 | 2,8116 | 0,3416 | 0,2078 |
| *Rikenellaceae* | Acetaldehyde | 0,0168 | 28 | 1,2148 | 0,8832 | 0,0265 | 0,0649 |
| *Ruminococcaceae* | Acetaldehyde | 0,0480 | 28 | 17,9953 | 22,1231 | 0,0265 | 0,0649 |
| | Isovalerate (Delphinic acid) | 0,0257 | 28 | 17,9953 | 22,1231 | 0,0036 | 0,0035 |
| | P-Cresol | 0,0392 | 28 | 17,9953 | 22,1231 | 0,1436 | 0,0892 |
| | Propanal | 0,0358 | 28 | 17,9953 | 22,1231 | 0,4585 | 0,4180 |
| *Streptococcaceae* | Dimethyl trisulfide | 0,0327 | 28 | 3,9527 | 2,3578 | 0,0162 | 0,0068 |
| | Methanethiol (Methyl mercaptan) | 0,0110 | 28 | 3,9527 | 2,3578 | 0,0036 | 0,0035 |
| | Propanal | 0,0160 | 28 | 3,9527 | 2,3578 | 0,2025 | 0,1480 |
| | Sulcatone (6-Methyl-5-hepten-2-one) | 0,0347 | 28 | 3,9527 | 2,3578 | 0,0286 | 0,0305 |
| *Veillonellaceae* | D-Limonene | 0,0342 | 28 | 3,7915 | 1,2730 | 0,1755 | 0,1447 |
| *Verrucomicrobiaceae* | Butyl butyrate | 0,0074 | 28 | 0,9157 | 1,7955 | 0,0265 | 0,0265 |
| | Methyl cyclohexanecarboxylate | 0,0265 | 28 | 0,9157 | 1,7955 | 0,1840 | 0,2770 |
| | Propyl butyrate | 0,0363 | 28 | 0,9157 | 1,7955 | 0,0072 | 0,0160 |
| | Valeric acid (Pentanoic acid) | 0,0089 | 28 | 0,9157 | 1,7955 | 0,0860 | 0,0845 |

**Table S3.** Statistically significant interactions between relative abundance of bacteria at the genus level and VOCs. P-value, population size, mean relative abundance of FBGs, and mean value of VOCs for each group is also shown. The mean values were calculated based on the number of subjects used for the interaction test, that is, n=28 (NA=18 and HRA=10).

| **GENUS TAXONOMY LEVEL** | | | | | | | |
|---|---|---|---|---|---|---|---|
| **FBGs** | **VOC** | ***P*-value of interaction** | **no.** | **Mean FBG value in HRA** | **Mean FBG value in NA** | **Mean VOC value in HRA** | **Mean VOC value in NA** |
| *Akkermansia* | Butyl butyrate | 0,0497 | 28 | 0,9558 | 1,8369 | 0,5733 | 0,5769 |
| | Butyrate (Butyric acid) | 0,0075 | 28 | 0,9558 | 1,8369 | 0,0265 | 0,0265 |
| | Methyl cyclohexanecarboxylate | 0,0257 | 28 | 0,9558 | 1,8369 | 0,1840 | 0,2770 |
| | Propyl butyrate | 0,0347 | 28 | 0,9558 | 1,8369 | 0,0072 | 0,0160 |
| | Valeric acid (Pentanoic acid) | 0,0086 | 28 | 0,9558 | 1,8369 | 0,0860 | 0,0845 |
| *Alistipes* | Acetaldehyde | 0,0160 | 28 | 1,2508 | 0,9132 | 0,0265 | 0,0649 |
| *Anaerostipes* | Dimethyl trisulfide | 0,0485 | 28 | 1,0840 | 1,4862 | 0,2025 | 0,1480 |
| *Bacteroides* | Isovaleraldehyde (3-Methylbutanal) | 0,0172 | 28 | 13,8285 | 11,1753 | 0,0265 | 0,0649 |
| | 2-Methylbutyraldehyde | 0,0362 | 28 | 13,8285 | 11,1753 | 0,0561 | 0,0338 |
| | Acetaldehyde | 0,0094 | 28 | 13,8285 | 11,1753 | 0,1424 | 0,1516 |
| | Acetic acid | 0,0117 | 28 | 13,8285 | 11,1753 | 0,4298 | 0,2981 |
| | Butanone | 0,0159 | 28 | 13,8285 | 11,1753 | 0,1973 | 0,2447 |
| | Isobutyraldehyde | 0,0128 | 28 | 13,8285 | 11,1753 | 0,3416 | 0,2078 |
| | Isobutyric acid | 0,0334 | 28 | 13,8285 | 11,1753 | 2,2473 | 1,2484 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Methyl butyrate | 0,0369 | 28 | 13,8285 | 11,1753 | 0,0606 | 0,0402 |
| | Methyl cyclohexanecarboxylate | 0,0476 | 28 | 13,8285 | 11,1753 | 0,0265 | 0,0265 |
| | Propyl butyrate | 0,0104 | 28 | 13,8285 | 11,1753 | 0,0860 | 0,0845 |
| *Blautia* | Propanal | 0,0018 | 28 | 7,4343 | 8,6688 | 0,0036 | 0,0035 |
| *Clostridium IV* | Acetic acid | 0,0273 | 28 | 0,6284 | 1,3470 | 0,0054 | 0,0027 |
| | Methacrolein | 0,0196 | 28 | 0,6284 | 1,3470 | 0,1973 | 0,2447 |
| *Clostridium XlVa* | Butanal | 0,0012 | 28 | 2,3397 | 1,7719 | 0,0036 | 0,0035 |
| | Propanal | 0,0078 | 28 | 2,3397 | 1,7719 | 0,0175 | 0,0097 |
| *Clostridium XVIII* | Decane | 0,0490 | 28 | 1,6754 | 1,0891 | 0,0034 | 0,0045 |
| *Collinsella* | Acetaldehyde | 0,0409 | 28 | 2,2150 | 1,9674 | 0,0265 | 0,0649 |
| | Dimethyl disulfide | 0,0227 | 28 | 2,2150 | 1,9674 | 0,0036 | 0,0035 |
| | Isobutyric acid | 0,0138 | 28 | 2,2150 | 1,9674 | 0,0054 | 0,0027 |
| | Methacrolein | 0,0374 | 28 | 2,2150 | 1,9674 | 0,5838 | 0,6092 |
| | Methyl 4-methylvalerate | 0,0461 | 28 | 2,2150 | 1,9674 | 0,0606 | 0,0402 |
| | Propanal | 0,0165 | 28 | 2,2150 | 1,9674 | 0,0462 | 0,0575 |
| | Acetaldehyde | 0,0445 | 28 | 1,6960 | 1,9782 | 0,0265 | 0,0649 |
| | Acetic acid | 0,0239 | 28 | 1,6960 | 1,9782 | 0,1973 | 0,2447 |
| | Active valeric acid (2-Methylbutanoic acid) | 0,0479 | 28 | 1,6960 | 1,9782 | 2,2473 | 1,2484 |
| | Butyrate (Butyric acid) | 0,0043 | 28 | 1,6960 | 1,9782 | 0,0606 | 0,0402 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| *Coprococcus* | Isobutyric acid | 0,0199 | 28 | 1,6960 | 1,9782 | 1,2991 | 0,7167 |
| | Isovalerate (Delphinic acid) | 0,0185 | 28 | 1,6960 | 1,9782 | 0,5733 | 0,5769 |
| | Methyl butyrate | 0,0257 | 28 | 1,6960 | 1,9782 | 0,1436 | 0,0892 |
| | Methyl cyclohexanecarboxylate | 0,0224 | 28 | 1,6960 | 1,9782 | 0,1151 | 0,0570 |
| | Methyl valerate | 0,0447 | 28 | 1,6960 | 1,9782 | 0,1840 | 0,2770 |
| | Valeric acid (Pentanoic acid) | 0,0255 | 28 | 1,6960 | 1,9782 | 0,0860 | 0,0845 |
| *Dialister* | Propyl butyrate | 0,0177 | 28 | 1,7181 | 0,1671 | 0,0265 | 0,0265 |
| *Dorea* | Propanal | 0,0154 | 28 | 1,5394 | 2,4240 | 0,0036 | 0,0035 |
| *Escherichia Shigella* | Propanal | 0,0160 | 28 | 0,4117 | 1,6384 | 0,0036 | 0,0035 |
| *Eubacterium* | Isovaleraldehyde | 0,0053 | 28 | 1,8049 | 1,8116 | 0,1214 | 0,1014 |
| | Diacetyl (2,3-Butanedione) | 0,0200 | 28 | 1,8049 | 1,8116 | 0,0561 | 0,0338 |
| | 2-Methylbutyraldehyde | 0,0288 | 28 | 1,8049 | 1,8116 | 0,0054 | 0,0027 |
| | Acetone | 0,0389 | 28 | 1,8049 | 1,8116 | 0,1135 | 0,1520 |
| | beta-Pinene | 0,0306 | 28 | 1,8049 | 1,8116 | 0,4298 | 0,2981 |
| | Ethyl acetone (2-Pentanone) | 0,0158 | 28 | 1,8049 | 1,8116 | 0,3416 | 0,2078 |
| | Isobutyraldehyde | 0,0274 | 28 | 1,8049 | 1,8116 | 0,1672 | 0,0956 |
| | Methacrolein | 0,0124 | 28 | 1,8049 | 1,8116 | 0,0155 | 0,0197 |
| | Methyl cyclohexanecarboxylate | 0,0034 | 28 | 1,8049 | 1,8116 | 0,0860 | 0,0845 |
| | Acetaldehyde | 0,0084 | 28 | 6,2463 | 7,7564 | 0,0265 | 0,0649 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| *Faecalibacterium* | Dimethyl trisulfide | 0,0417 | 28 | 6,2463 | 7,7564 | 0,0036 | 0,0035 |
| | Furfural | 0,0174 | 28 | 6,2463 | 7,7564 | 0,0024 | 0,0016 |
| | P-Cresol | 0,0133 | 28 | 6,2463 | 7,7564 | 0,0032 | 0,0083 |
| | Propanal | 0,0276 | 28 | 6,2463 | 7,7564 | 0,2025 | 0,1480 |
| | trans-4-methyl-2-pentene | 0,0256 | 28 | 6,2463 | 7,7564 | 0,4585 | 0,4180 |
| *Fusicatenibacter* | Indole | 0,0055 | 28 | 0,4490 | 1,3316 | 0,0036 | 0,0035 |
| | P-Cresol | 0,0340 | 28 | 0,4490 | 1,3316 | 0,4585 | 0,4180 |
| | Propanal | 0,0497 | 28 | 0,4490 | 1,3316 | 0,0365 | 0,0586 |
| *Gemmiger* | Heptanal | 0,0352 | 28 | 2,7335 | 3,0464 | 0,0118 | 0,0120 |
| *Holdemanella* | Isovaleraldehyde | 0,0202 | 28 | 1,2730 | 0,5205 | 0,0561 | 0,0338 |
| | 2-Heptanone | 0,0305 | 28 | 1,2730 | 0,5205 | 0,4298 | 0,2981 |
| | 2-Methylbutyraldehyde | 0,0297 | 28 | 1,2730 | 0,5205 | 0,3416 | 0,2078 |
| | Ethyl acetone (2-Pentanone) | 0,0427 | 28 | 1,2730 | 0,5205 | 0,1672 | 0,0956 |
| | Isobutyraldehyde | 0,0220 | 28 | 1,2730 | 0,5205 | 0,0462 | 0,0575 |
| | Methyl 4-methylvalerate | 0,0478 | 28 | 1,2730 | 0,5205 | 0,0182 | 0,0495 |
| *Lachnospiraceae incertae sedis* | 2-Octanone | 0,0036 | 28 | 4,5114 | 5,1633 | 0,0036 | 0,0035 |
| | Butanal | 0,0365 | 28 | 4,5114 | 5,1633 | 0,0054 | 0,0027 |
| | Dimethyl disulfide | 0,0043 | 28 | 4,5114 | 5,1633 | 0,0175 | 0,0097 |
| | Heptanal | 0,0325 | 28 | 4,5114 | 5,1633 | 0,0185 | 0,0150 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Hexanal | 0,0064 | 28 | 4,5114 | 5,1633 | 0,5838 | 0,6092 |
| | Isobutyric acid | 0,0079 | 28 | 4,5114 | 5,1633 | 0,0428 | 0,0223 |
| | Isopropenyl methyl ketone | 0,0429 | 28 | 4,5114 | 5,1633 | 0,0606 | 0,0402 |
| | Methacrolein | 0,0364 | 28 | 4,5114 | 5,1633 | 0,0118 | 0,0120 |
| | Propanal | 0,0103 | 28 | 4,5114 | 5,1633 | 0,0063 | 0,0040 |
| *Lactobacillus* | Propanal | 0,0316 | 28 | 2,9129 | 0,0861 | 0,0036 | 0,0035 |
| | Butyl methyl ketone (2-Hexanone) | 0,0381 | 28 | 2,9129 | 0,0861 | 0,0541 | 0,0136 |
| *Phascolarctobacterium* | Dimethyl disulfide | 0,0288 | 28 | 1,3843 | 2,1504 | 0,5838 | 0,6092 |
| | D-Limonene | 0,0365 | 28 | 1,3843 | 2,1504 | 0,1755 | 0,1447 |
| *Prevotella* | Isovaleraldehyde | 0,0160 | 28 | 6,2903 | 2,5045 | 0,0561 | 0,0338 |
| | 2-Methylbutyraldehyde | 0,0142 | 28 | 6,2903 | 2,5045 | 0,4298 | 0,2981 |
| | Acetic acid | 0,0230 | 28 | 6,2903 | 2,5045 | 0,1973 | 0,2447 |
| | Isobutyraldehyde | 0,0102 | 28 | 6,2903 | 2,5045 | 0,3416 | 0,2078 |
| *Roseburia* | Propanal | 0,0239 | 28 | 2,1586 | 3,9047 | 0,0036 | 0,0035 |
| *Ruminococcus* | Butyl methyl ketone (2-Hexanone) | 0,0438 | 28 | 5,3763 | 7,3652 | 0,0541 | 0,0136 |
| *Ruminococcus2* | Isovaleraldehyde | 0,0007 | 28 | 2,8810 | 2,5121 | 0,0036 | 0,0035 |
| | Hexanal | 0,0466 | 28 | 2,8810 | 2,5121 | 0,0561 | 0,0338 |
| | Isobutyraldehyde | 0,0188 | 28 | 2,8810 | 2,5121 | 0,0924 | 0,0599 |
| | Propanal | 0,0339 | 28 | 2,8810 | 2,5121 | 0,4298 | 0,2981 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Propanol | 0,0388 | 28 | 2,8810 | 2,5121 | 0,0428 | 0,0223 |
| *Streptococcus* | Dimethyl trisulfide | 0,0264 | 28 | 3,9984 | 2,2754 | 0,0162 | 0,0068 |
| | Methanethiol (Methyl mercaptan) | 0,0126 | 28 | 3,9984 | 2,2754 | 0,0036 | 0,0035 |
| | Propanal | 0,0145 | 28 | 3,9984 | 2,2754 | 0,2025 | 0,1480 |
| | Sulcatone (6-Methyl-5-hepten-2-one) | 0,0395 | 28 | 3,9984 | 2,2754 | 0,0286 | 0,0305 |
| *Veillonella* | Propanal | 0,0214 | 28 | 1,8410 | 0,4403 | 0,0036 | 0,0035 |