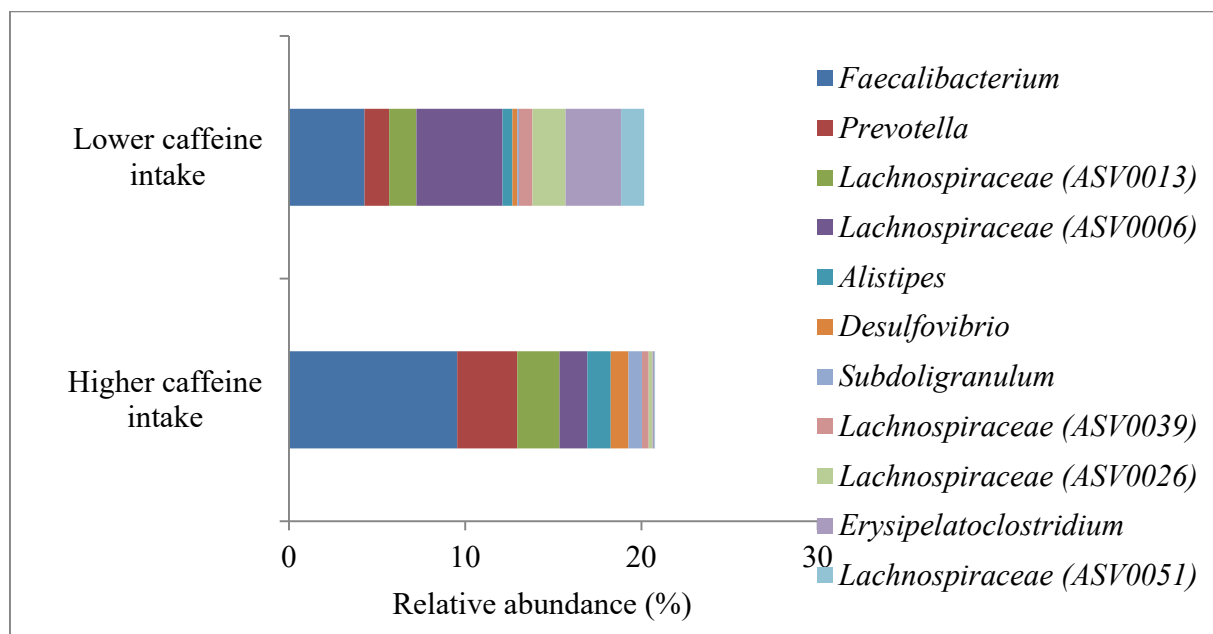**Supplemental Table S1.** Basic characteristics of study participants based on coffee consumption.

| Characteristics<br>Mean ± standard deviation or n (%) | < 2 cups<br>(n=17) | 2 cups<br>(n=9) | ≥ 3 cups<br>(n=8) | *P* value |
|---|---|---|---|---|
| Caffeine (mg) | 44.7 ± 33.6 | 106.3 ± 41.0 | 163.8 ± 71.4 | < 0.0001 |
| Age (years) | 61.4 ± 5.16 | 64.2 ± 4.38 | 60.7 ± 7.35 | 0.38 |
| Men, n (%) | 17 (100%) | 9 (100%) | 7 (87.5%) | 0.24 |
| Racial Group | | | | 0.18 |
| Non-Hispanic white, n (%) | 12 (70.6%) | 9 (100%) | 7 (87.5%) | |
| Body mass index (kg/m$^2$) | 33.6 ± 6.32 | 36.4 ± 7.23 | 31.9 (5.54) | 0.34 |
| Smoking Status, n (%) | | | | 0.83 |
| Never smokers | 8 (47.1%) | 2 (22.2%) | 3 (37.5%) | |
| Former smokers | 6 (35.3%) | 5 (55.6%) | 3 (37.5%) | |
| Current smokers | 3 (17.6%) | 2 (22.2%) | 2 (25.0%) | |
| Alcohol Status, n (%) | | | | 0.86 |
| Never drinkers | 4 (23.5%) | 2 (22.2%) | 3 (37.5%) | |
| Former drinkers | 6 (35.3%) | 3 (33.3%) | 1 (12.5%) | |
| Current Drinker | 7 (41.2%) | 4 (44.4%) | 4 (50.0%) | |
| Hypertension, yes, n (%) | 12 (70.6%) | 8 (88.9%) | 5 (62.5%) | 0.47 |
| Diabetes, yes, n (%) | 8 (47.1%) | 5 (55.6%) | 4 (50.0%) | 1.00 |
| Daily total calorie intake (kcal) | 1839 (±605) | 1632 (±644) | 2301 (±853) | 0.13 |
| Total carbohydrate (gram/1000kcal/day) | 115 (±23.2) | 112 (±18.3) | 112 (±19.0) | 0.89 |
| Total protein (gram/1000kcal/day) | 36.1 (±5.99) | 40.5 (±8.43) | 40.0 (±8.21) | 0.25 |
| Total fat (gram/1000kcal/day) | 41.5 (±8.29) | 42.5 (±6.86) | 43.4 (±5.07) | 0.82 |
| Vitamin B2 (mg/1000kcal/day) | 0.89 (±0.21) | 1.20 (±0.22) | 1.34 (±0.37) | 0.0005 |
| Vitamin B6 (mg/1000kcal/day) | 1.48 (±0.50) | 1.66 (± 0.71) | 2.22 (± 0.90) | 0.07 |
| Vitamin B12 (mcg/1000kcal/day) | 2.19 ((±0.62) | 2.72 (± 1.07) | 2.82 (±0.93) | 0.15 |
| HEI score[1] | 59.8 (±9.22) | 61.8 (±9.65) | 62.4 (±8.41) | 0.76 |

[1]HEI, healthy eating index.

**Supplemental Figure S1.** The relative abundance of bacterial genus by lower vs. higher intake of caffeine (*q* value < 0.05).