**Supplemental Table 1.** Subject characteristics at baseline (n = 20). Data are Mean ± SD, independent t-test.

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter | Group | | P value |
| AB n = 10 | BA n = 10 |  |
| Height (cm) | 166.25 ± 11.49 | 171 ± 11.08 | .452 |
| Weight (kg) | 74.25 ± 10.8 | 70.50 ± 16.94 | .622 |
| BMI | 24.75 ± 2.76 | 23.83 ± 2.13 | .498 |
| Age (years) | 46.13 ± 9.97 | 38.17 ± 14.87 | .253 |
| Sex (Male/Female) | 6F/2M | 4F/2M | .761 |

**Supplemental Table 2**. Nutritional information of the MOJU Prebiotic Gut Shot per 60ml and 100ml

|  |  |  |
| --- | --- | --- |
| **Nutrients** | **Per 60ml portion** | **Per 100ml** |
| **Energy** | 134kJ/31.8 | 224kJ/53kcal |
| **Fat**  ***of which saturates*** | 0.18g  0.06g | 0.3g  0.1g |
| **Carbohydrate**  ***of which sugars*** | 6.6g  4.92g | 11g  8.2g |
| **Fibre** | 3.66g | 6.1g |
| **Protein** | 0.3g | 0.5g |
| **Salt** | 0g | 0g |
| **Vitamin C** | 10.2mg | 17mg |

**Supplemental Table 3**: Habitual dietary inulin and oligofructose during the prebiotic supplement Phase. Data are gram per day (Mean ± SD), paired t-test.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Group/Treatment order | Phase | Inulin | Between group p value | Oligofructose | Between group p value |
| AB | 1 | 4.65 ± 2.68 | .156 | 4.11 ± 2.34 | .298 |
| BA | 2 | 6.66 ± 1.92 | 5.43 ±1.95 |

**Supplemental Table 4**. Habitual dietary inulin and oligofructose during the trial, pooled data. Data are gram per day (Mean ± SD), paired t-test.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Fibre | Prebiotic phase | Placebo phase | Difference | P value |
| Inulin | 6.07 ± 3.01 | 5.49 ± 2.5 | 0.578 ± 1.65 | .213 |
| Oligofructose | 5.12 ±2.58 | 4.73 ± 2.34 | 0.384 ± 1.54 | .370 |

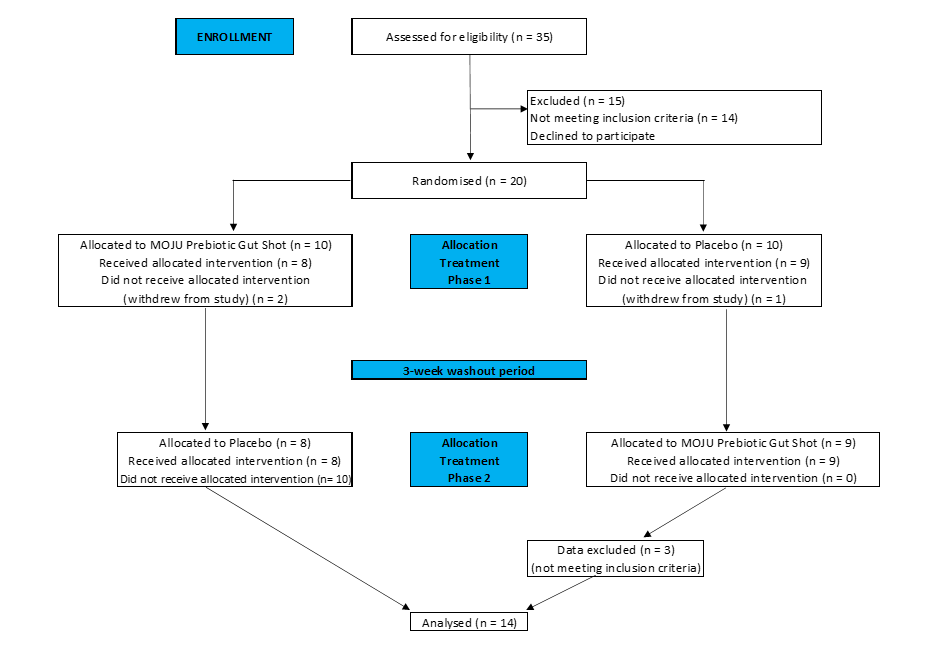
**Supplemental Table 5**. Habitual dietary inulin and oligofructose within-group differences. Data are gram per day (Mean ± SD), paired t-test.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Group | Inulin within-group p value | Difference between phases | Oligofructose within-group p value | Difference between phases |
| AB | .279 | 0.84±2.0 | .214 | 0.81±1.69 |
| BA | .612 | 0.22±1.0 | .721 | 0.19±1.2 |

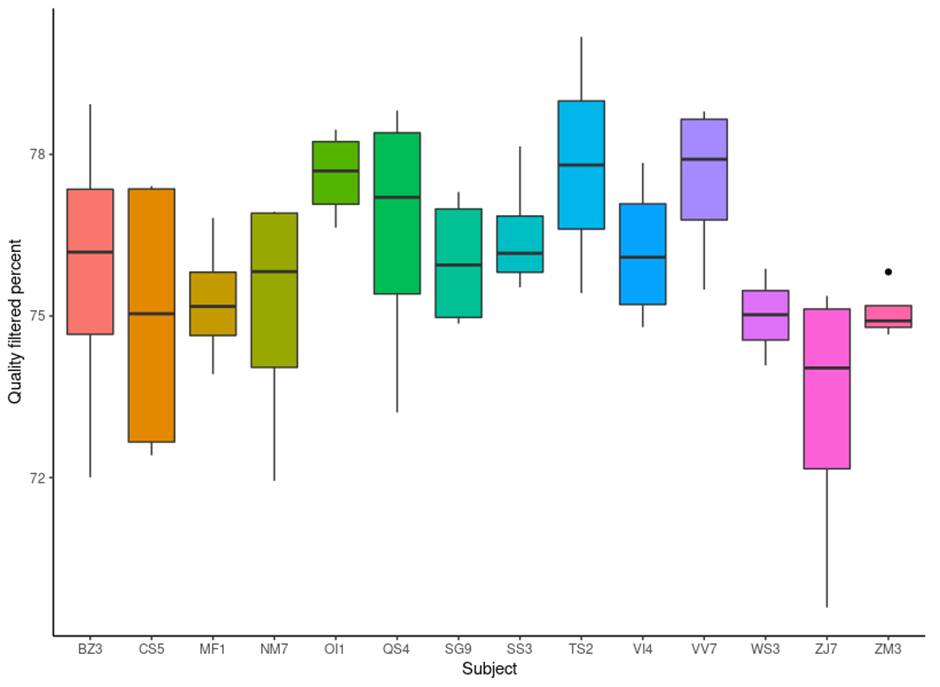
**Supplemental Table 6**. BSS consistency changes (Mean ± SD), paired t-test.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Group | Phase | Pre | Post | Diff | P value |
| AB | Prebiotic (1) | 3.37±0.74 | 3.87±0.35 | 0.5±0.75 | 0.104 |
| AB | Placebo (2) | 3.0±1.4 | 3.62±1.4 | 0.62±1.5 | 0.279 |
| BA | Placebo (1) | 3.33±0.81 | 3.50±0.54 | 0.16±1.16 | 0.741 |
| BA | Prebiotic (2) | 4.0±0.89 | 4.16±0.75 | 0.16±1.16 | 0.741 |

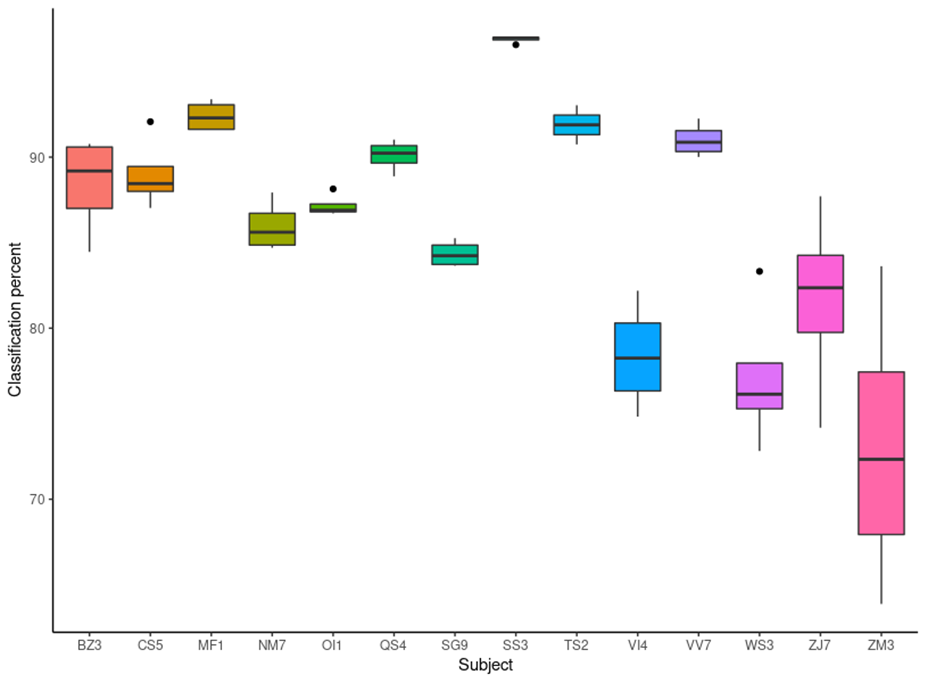
**Supplemental Figure 1**. CONSORT (Consolidated Standards of Reporting Trials) flow diagram



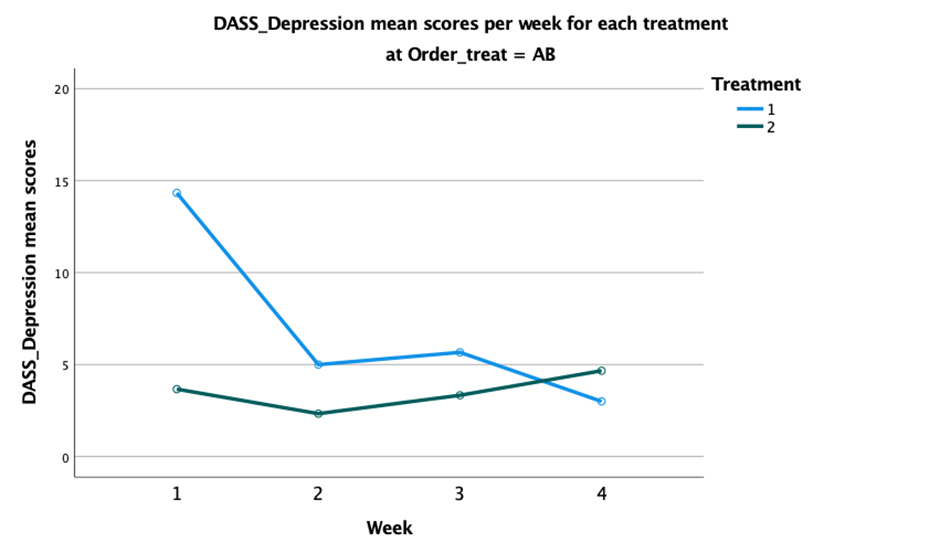
**Supplemental Figure 2**. Boxplot representation of percentage of reads which pass the quality filtering step, separated, and coloured by subject.

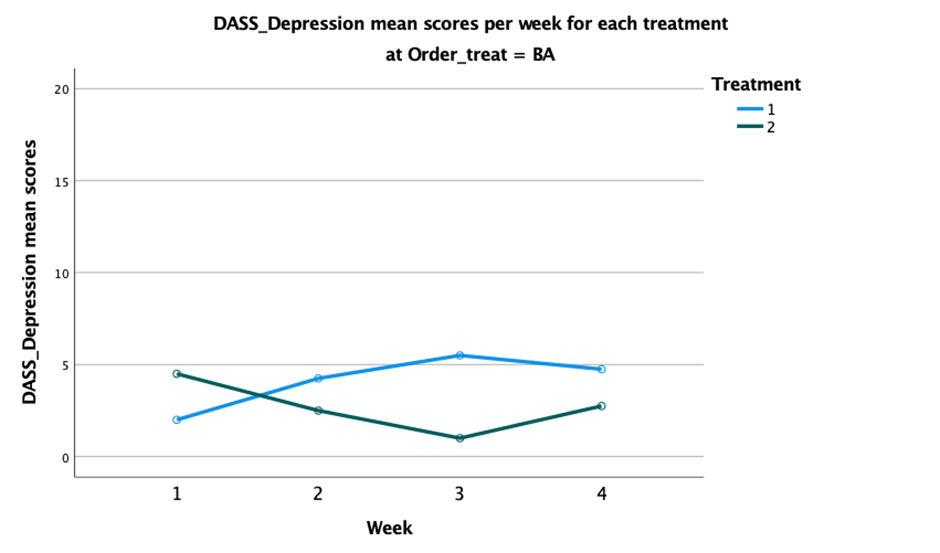


**Supplemental Figure 3**. Kraken2 percent classification of reads, separated and coloured by participant.

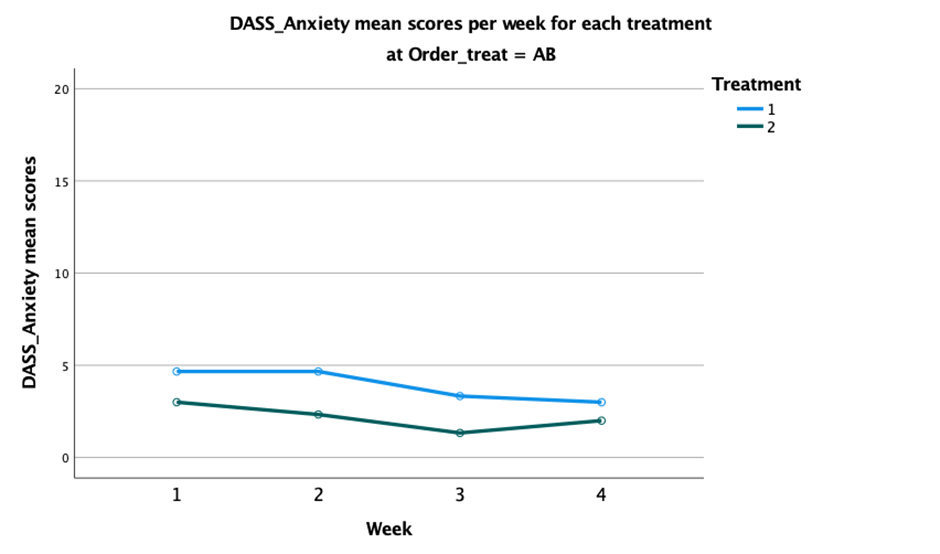


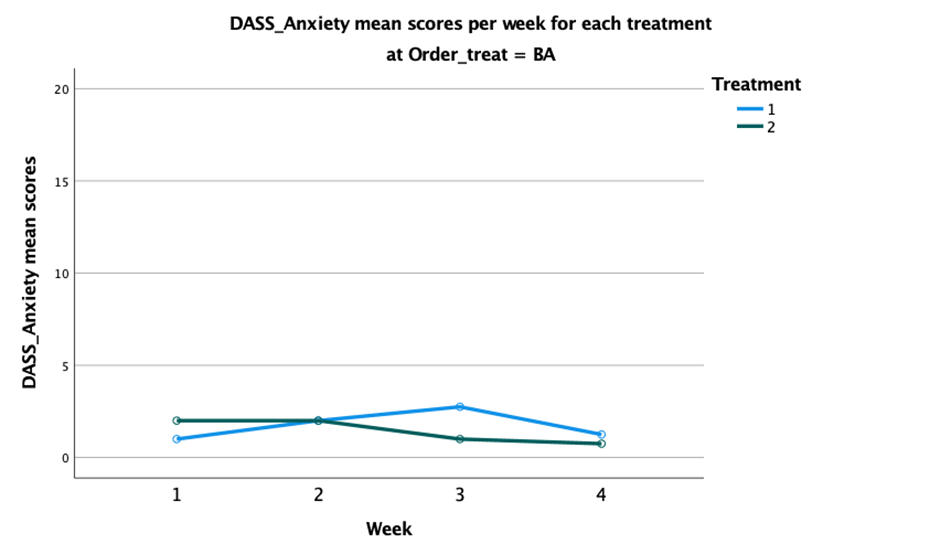
**Supplemental Figure 4.** Effect of 3-week supplementation of MOJU Prebiotic Shot or placebo (without the fibres) on Depression, as measured by DASS-42. Graphs show within-group changes for each treatment. AB is treatment order prebiotic start (n = 3), and BA is treatment order placebo start (n = 4). Treatment one = MOJU Prebiotic Shot, and treatment two = placebo. Week 1 = baseline, week 2 = end of intervention week 1; week 3 = end of intervention week 2; week 4 = end of intervention week 3



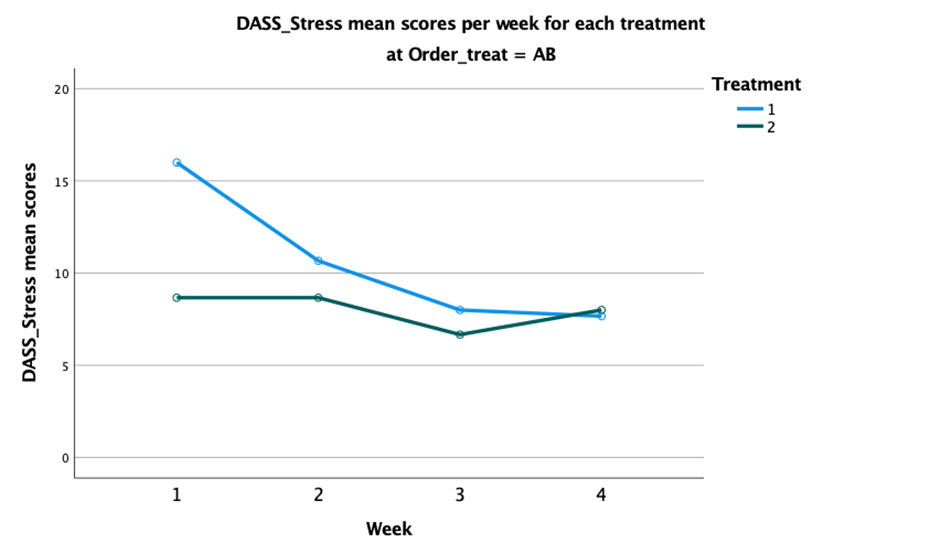


**Supplemental Figure 5.** Effect of 3-week supplementation of MOJU Prebiotic Shot or placebo (without the fibres) on Anxiety, as measured by DASS-42. Graphs show within-group changes for each treatment. Treatment one = MOJU Prebiotic Shot, and treatment two = placebo. AB is treatment order prebiotic start (n = 3), and BA is treatment order placebo start (n = 4). Week 1 = baseline, week 2 = end of intervention week 1; week 3 = end of intervention week 2; week 4 = end of intervention week 3

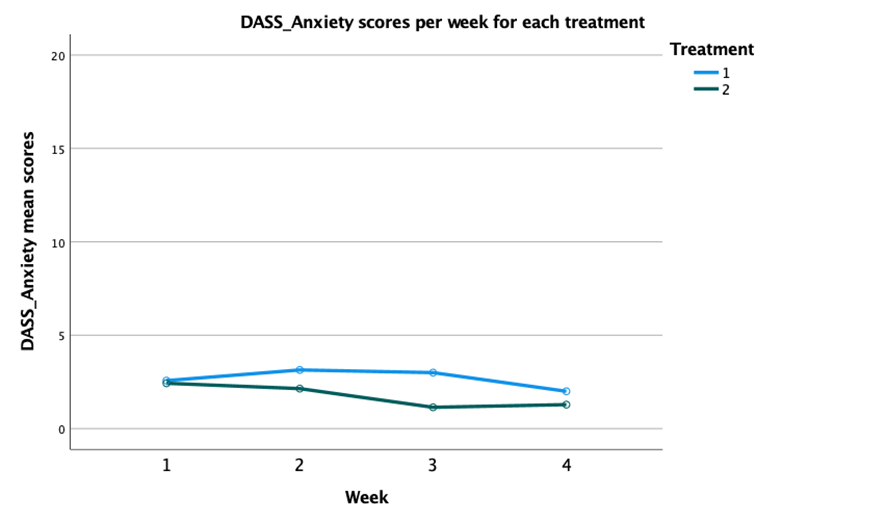


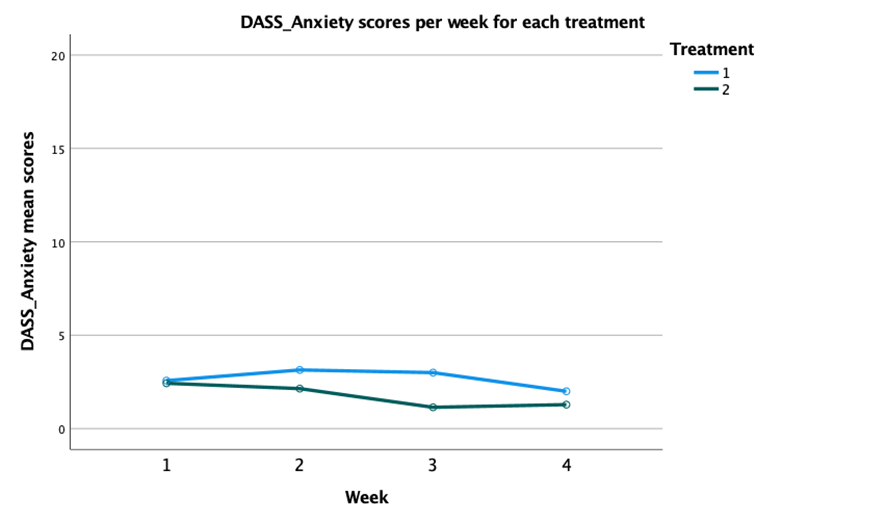


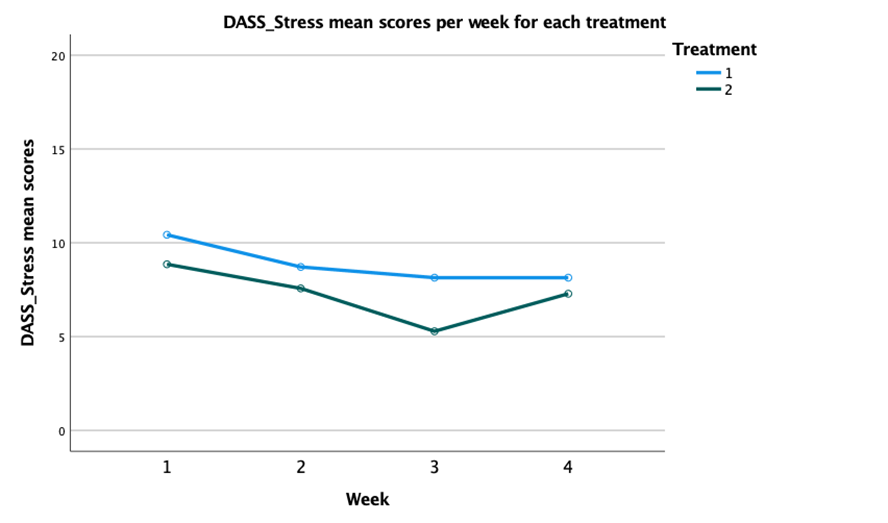
**Supplemental Figure 6**. Effect of 3-week supplementation of MOJU Prebiotic Shot or placebo (without the fibres) on Stress, as measured by DASS-42. Graphs show within-group changes for each treatment. AB is treatment order prebiotic start (n = 3), and BA is treatment order placebo start (n = 4). Treatment one = MOJU Prebiotic Shot, and treatment two = placebo. Week 1 = baseline, week 2 = end of intervention week 1; week 3 = end of intervention week 2; week 4 = end of intervention week 3



**Supplemental Figure 7.** Effect of 3-week supplementation of MOJU Probiotic Shot or placebo (without the fibres) on Depression, Anxiety, and Stress as measured by DASS-42. Graphs show between treatment changes for total scores (n = 7). Treatment one = MOJU Prebiotic Shot, and treatment two = placebo. Week 1 = baseline, week 2 = end of intervention week 1; week 3 = end of intervention week 2; week 4 = end of intervention week 3







**Supplemental Figure 8.** Effects of 3-week supplementation of the MOJU Prebiotic Shot or placebo (without the fibres) on gut microbiota at genus level in healthy adults. Stack bar charts represent relative abundance of main phyla for treatment order groups (AB) prebiotic start, and (BA) placebo start.

