**Supplementary Table 1.** Bacterial composition of OMNi-BiOTiC® STRESS Repair:

| Bacterial Composition       |
|-----------------------------|
| Bifidobacterium bifidum W23 |
| Bifidobacterium lactis W51  |
| Bifidobacterium lactis W52  |
| Lactobacillus acidophilus W22|
| Lactobacillus casei W56     |
| Lactococcus lactis W19      |
| Lactobacillus paracasei W20 |
| Lactobacillus plantarum W62|
| Lactobacillus salivarius W24|

**Supplementary Table 2.** Data of mPASDAS score elements at baseline as well as week 12 and 24:

| Parameter                   | Baseline       | Week 12       | Week 24       |
|-----------------------------|----------------|---------------|---------------|
| CRP (mg/L)                  | 2.7 (0.7–8.4)  | 2.1 (0.9–12.2)| 1.9 (0.6–9.6) |
| Dactylitis count            | 0 (0–0)        | 0 (0–0)       | 0 (0–0)       |
| EGA                         | 30 (0–35)      | 0 (0–5)       | 0 (0–20)      |
| HAQ                         | 1 (0–1.38)     | 1.19 (0–1.88) | 0.75 (0–1.75) |
| Leeds Enthesitis Count      | 0 (0–1)        | 0 (0–0)       | 0 (0–0)       |
| PGA                         | 35 (4–50)      | 45 (30–50)    | 30 (5–60)     |
| SJC                         | 0 (0–3)        | 0 (0–0)       | 0 (0–1)       |
| TJC                         | 7 (1–21)       | 3 (0–18)      | 1 (0–12)      |

Data are presented as median (range). CRP, C-reactive protein; EGA, evaluator’s global assessment (range 0–100mm); HAQ, health assessment questionnaire (range 0–3); PGA, patient’s global assessment (range 0–100mm); SJC, swollen joint count (range 0–66); TJC, tender joint count (range 0–68)