

Table S1. Basic characteristics of study participants.

Randomization group 1 (7 billion)			Randomization group 2 (70 billion)		
Subject (n=20)	Sex (15F/5M)	Age (19-59 years)	Subject (n=20)	Sex (12F/8M)	Age (22-49 years)
S01	F	23	S21	M	23
S02	F	57	S22	F	32
S03	F	34	S23	F	24
S04	F	26	S24	F	22
S05	M	27	S25	M	25
S06	M	27	S26	M	24
S07	F	24	S27	F	35
S08	M	26	S28	F	24
S09	F	23	S29	M	29
S10	F	19	S30	F	24
S11	F	23	S31	F	43
S12	F	22	S32	M	28
S13	M	24	S33	F	23
S14	F	29	S34	F	23
S15	F	28	S35	M	23
S16	F	32	S36	F	35
S17	F	24	S37	M	48
S18	M	32	S38	F	24
S19	F	25	S39	F	23
S20	F	59	S40	M	49

Figure S1. Representative biplot from flow cytometry analysis of the bacterial cells stained with SYTO 24 and propidium iodide in the probiotic capsules at 7 (panel A) and 70 (panel B) billion dosages. Active Fluorescent Units (AFU) were identified in the green gate (presumed live cells), damaged cells were identified in orange gate, non-Active Fluorescent Units (nonAFU) were identified in the red gate (presumed dead cells). Channels FL1 and FL3 used the measurement of fluorescence are described in the text.

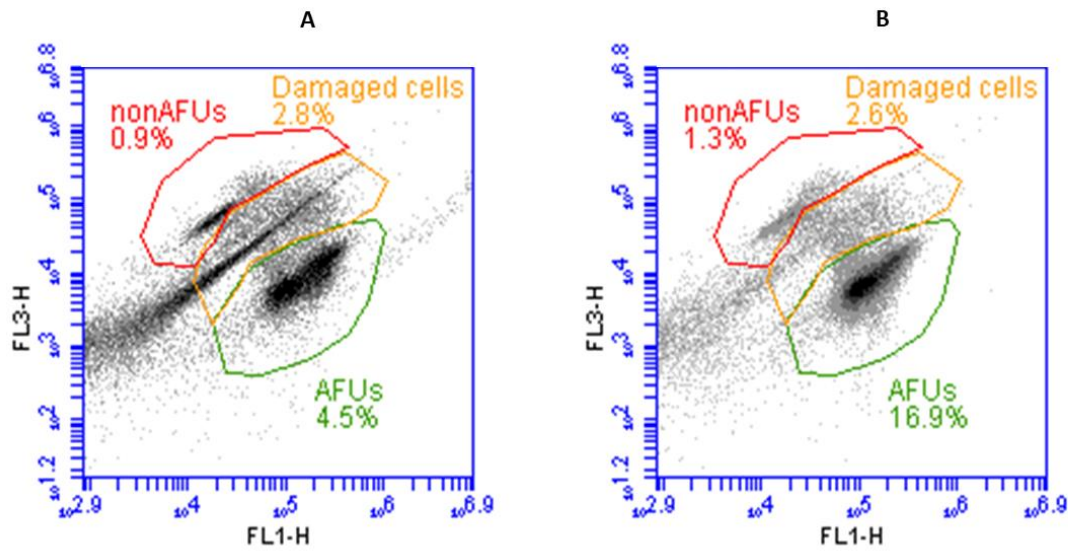
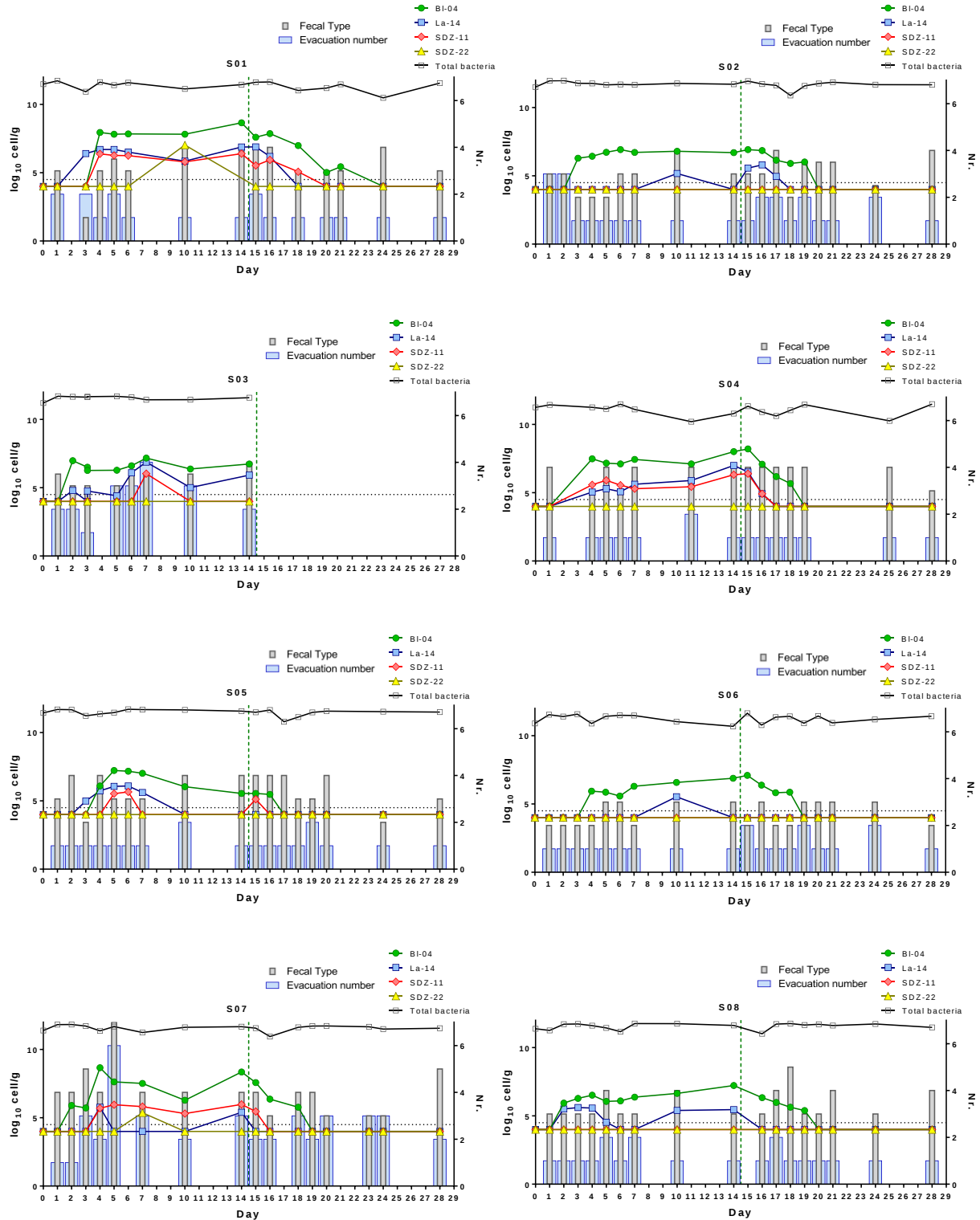
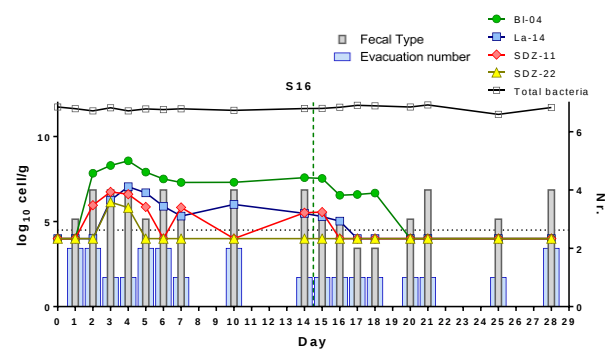
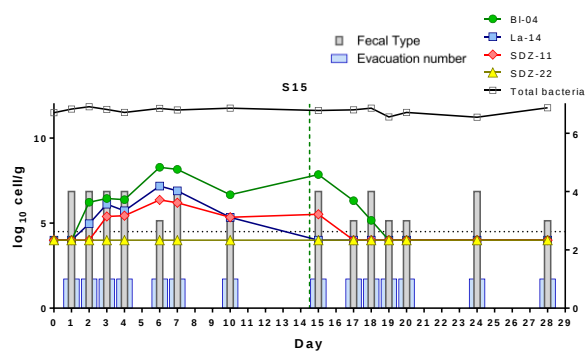
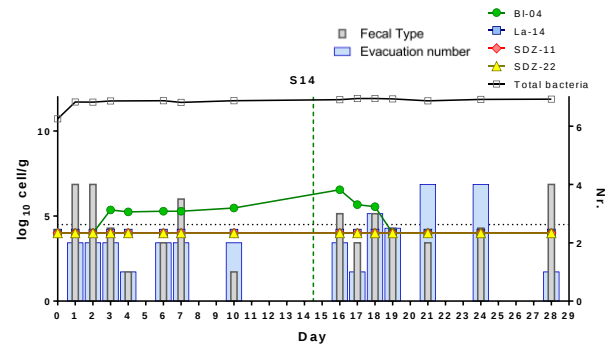
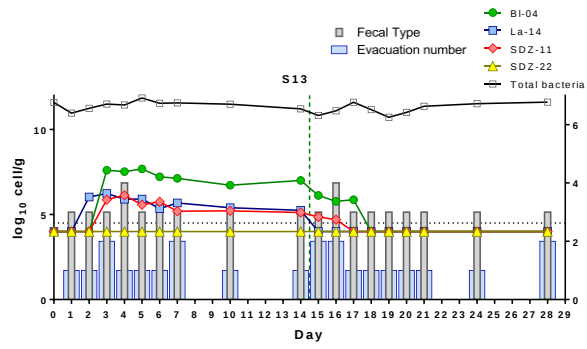
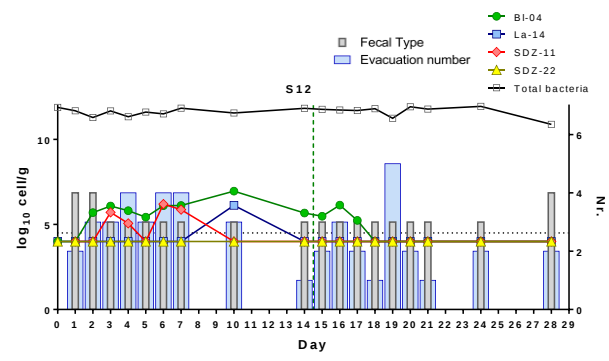
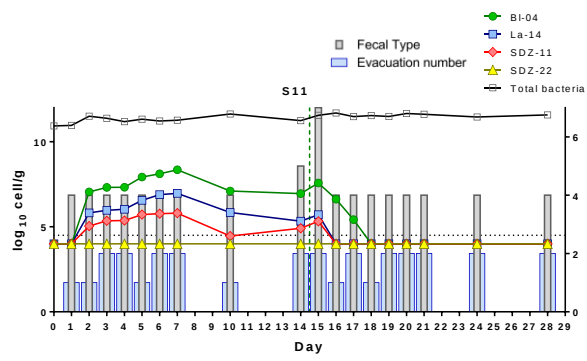
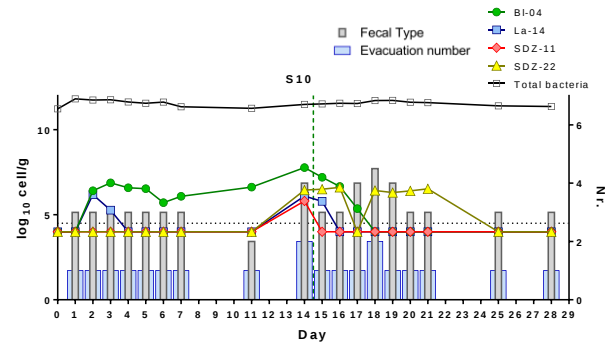
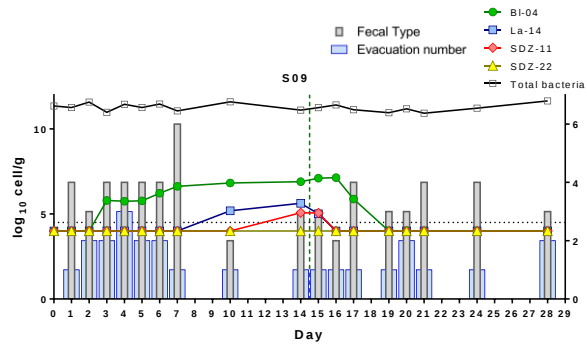


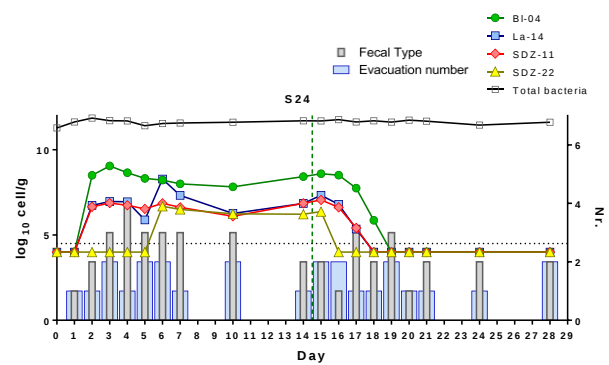
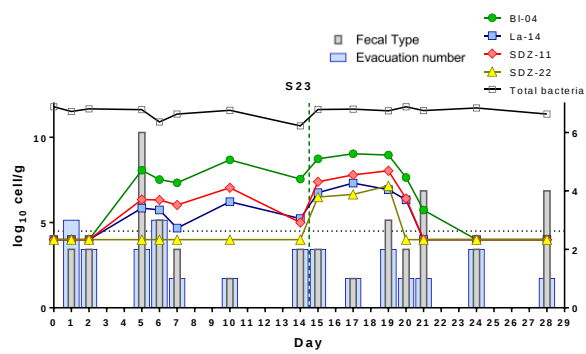
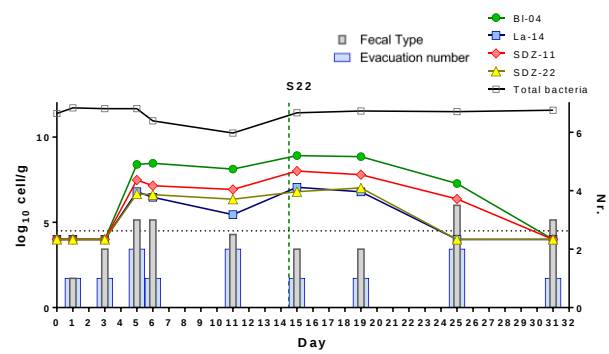
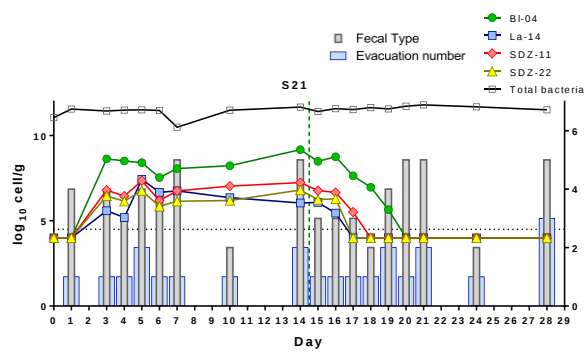
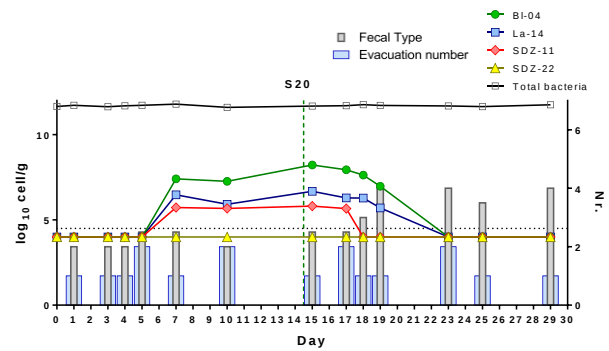
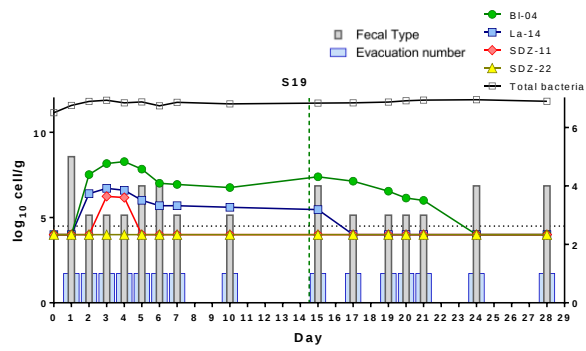
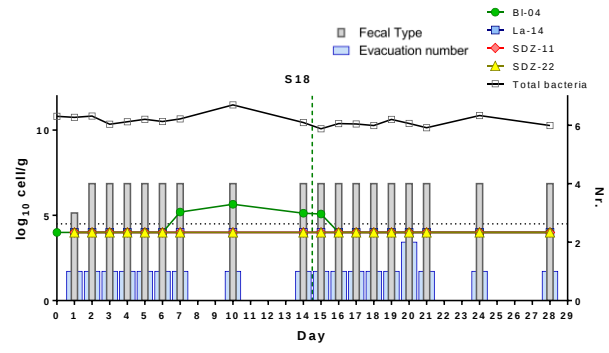
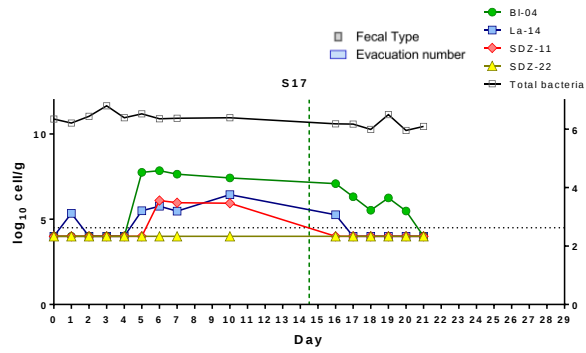
Figure S2. Detection of the probiotic strains along the ECoCePPI study reported for each subjects from the 7-billion (subjects S01 to S20) and the 70-billion (S21 to S40) arm. Quantification of probiotic strains in fecal samples through qPCR is reported as number of cells expressed in log₁₀ cells/g of feces (left Y axis). Gray histograms refer to the number of evacuations, whereas blue histograms refer to the Bristol stool scale (both on the right Y axis) as reported daily by volunteers in the questionnaire. BI-04: *B. animalis* subsp. *lactis* BI-04; La-14: *L. acidophilus* La-14; SDZ-11: *L. plantarum* SDZ-11; SDZ-22: *L. paracasei* SDZ-22. The horizontal dotted gray lines indicate the detection limit of bacterial cell quantification in qPCR.



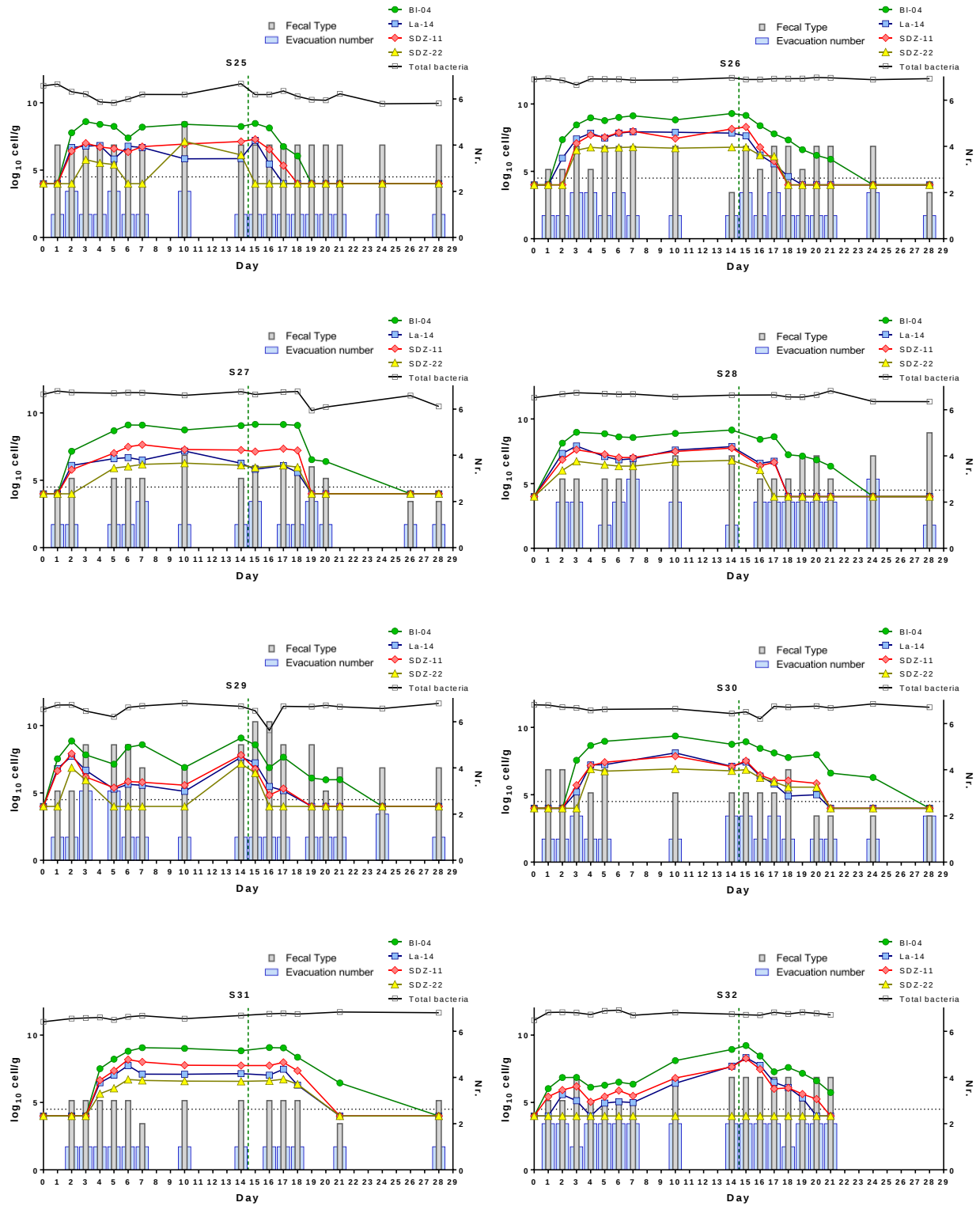
Supplementary material



Supplementary material



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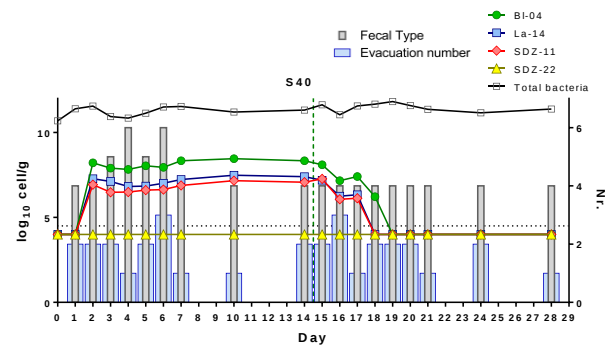
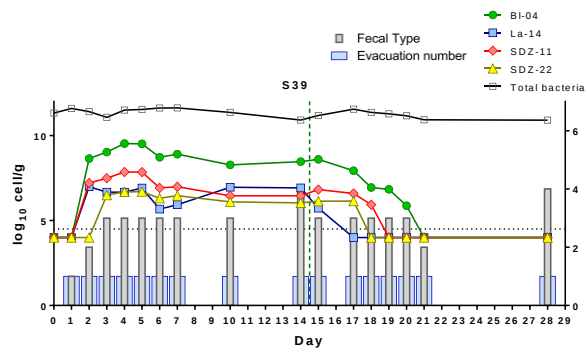
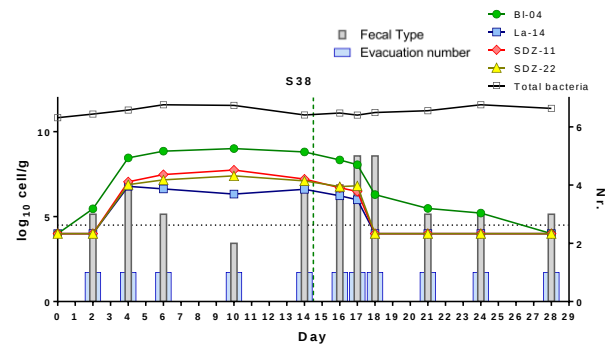
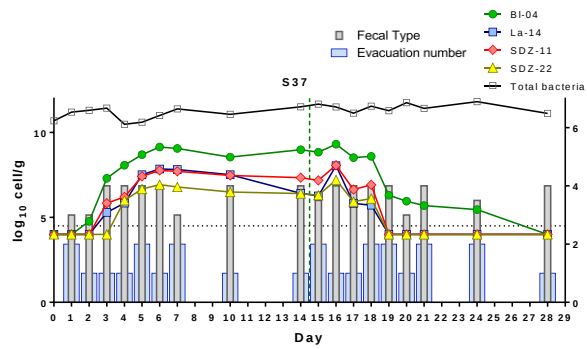
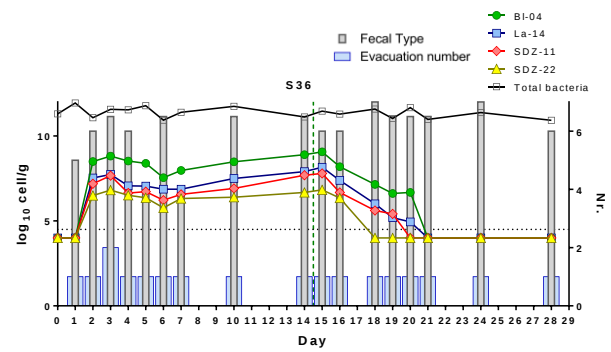
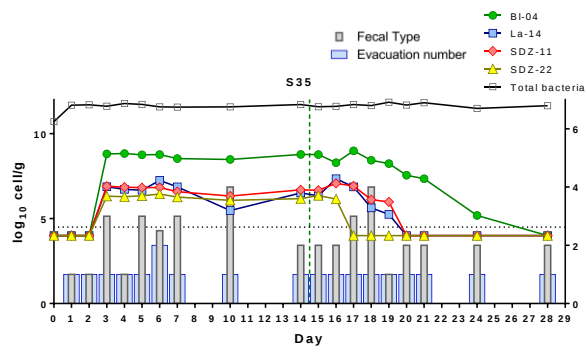
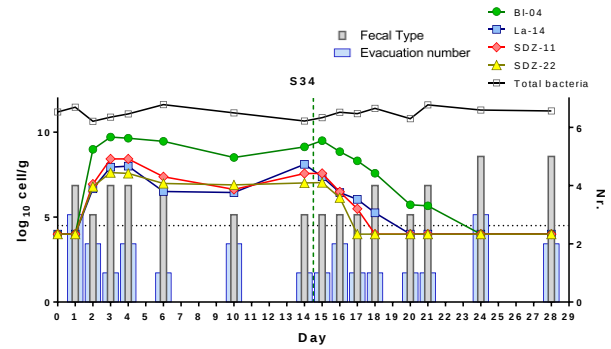
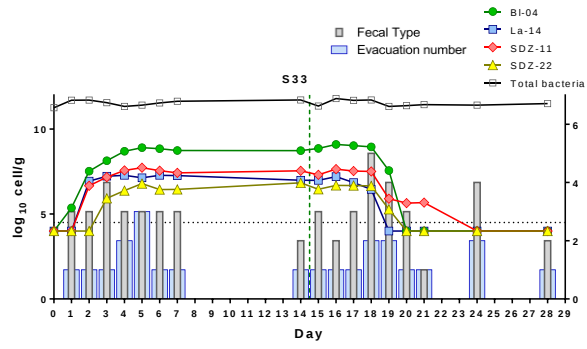


Figure S3. Isolation of viable cells of the probiotic strains from the feces collected at the end of the intervention period (day 14). Positive recovery is indicated in green. Red boxes indicate that viable cells of a specific probiotic strain have not been isolated from the feces of a specific subject.

7 billion					70 billion				
Subject	BI-04	La-14	SDZ-11	SDZ-22	Subject	BI-04	La-14	SDZ-11	SDZ-22
S01					S21				
S02					S22				
S03					S23				
S04					S24				
S05					S25				
S06					S26				
S07					S27				
S08					S28				
S09					S29				
S10					S30				
S11					S31				
S12					S32				
S13					S33				
S14					S34				
S15					S35				
S16					S36				
S17					S37				
S18					S38				
S19					S39				
S20					S40				

Figure S4. Stability of probiotic cell viability in capsules during the ECoCePPI study as determined through flow cytometer experiments. More details on the flow cytometer protocol adopted are available in the text (material and methods section) and in Figure S1.

