## Bacteria grown in BHIS medium B. fragilis; replicates // 1 **\\\** 2 Replicate 1 Replicate 2 pacterial density (OD600) 0.32 0.16 0.08 0.04 1. alucose (mM) 0.0 © 0.6 E 0.4 Δ fermentation product (mM) fermentation rate (mM/OD600) product (mM) owth rate (1/h) 0.4 0.4 0.2 0.0 0.5 0.2 0.3 0.0 0.2 0.4 0.1 0.0 dincigg to go this following to the control of the distribution of the control of bacterial density (OD600) time (h) bacterial density (OD600) B. thetaiotaomicron; replicates 2 Replicate 1 Replicate 2 Replicate 3 0.0 (mW) 0.0 0.0 0.64 0.32 0.16 0.08 o c b b b fermentation product (mM) o c b b broduct (mM) ∆ glucose (mM) glucose (mM) rate (mM/OD600) o G G 0.0 0.1 0.2 0.3 0.4 0.1 0.2 0.3 0.1 0.2 0.3 0.0 0.5 1.0 1.5 0.0 0.0 dincigg to ge printiplicity to the control of the bacterial density (OD600) bacterial density (OD600) time (h) bacterial density (OD600) A. rectalis; replicates 2 Replicate 2 Replicate 1 Replicate 3 0.64 0.32 0.16 0.08 1.0 0.5 0.0 0.15 0.10 0.05 0.05 (Mm) 0.5 0.0 Δ fermentation product (mM) $\Delta$ fermentation product (mM) o δ b b b d fermentation product (mM) rate (mM/OD600) replicate growth rate (1/h) 0.50 bacterial 0.2 0.2 0.1 0.0 0.1 0.3 0.4 0.0 0.3 0.4 0.2 bacterial density (OD600) bacterial density (OD600) time (h) bacterial density (OD600) B. ovatus; replicates 2 Replicate 1 Replicate 2 Replicate 3 1.5 1.0 0.5 0.0 0.0 $\Delta$ fermentation product (mM) Δ fermentation product (mM) o δ γ γ 9 Δ fermentation product (mM) glucose (mM) glucose (mM) rate (mM/OD600) 10 0.5 $\triangleleft$ $\triangleleft$ 0.2 dincustrate are distributed as take distributed as the distributed as 0.0 1.5 2.0 0.2 0.4 0.2 0.4 0.5 0.0 0.0 1.0 time (h) bacterial density (OD600) bacterial density (OD600) bacterial density (OD600) P. vulgatus; replicates 2 Replicate 1 Replicate 2 Replicate 3 1.0 (mW) 0.5 0.0 0.32 1.5 1.0 1.0 0.5 0.0 0.0 (W E) rate (mM/OD600) 0.0 0.0 rate (1/h) 0.5 alucose density (0.16 0.08 0.08 0.50 0.5 rowth $\triangleleft$ $\triangleleft$ $\triangleleft$ 0.2 0.0 0.1 0.2 0.3 0.0 0.0 0.2 directly the state of the state of the contract of the state of the st bacterial density (OD600) bacterial density (OD600) bacterial density (OD600) time (h) R. intestinalis; replicates **\\\** 2 Replicate 1 Replicate 2 Replicate 3 (Mm) 0.4 0.2 0.0 0.32 ∆ fermentation product (mM) glucose (mM) glucose (mM) fermentation rate (mM/OD600) product (mM) bacterial density (0 80.0 40.0 80.0 $\triangleleft$ $\triangleleft$ $\triangleleft$ 0.3 0.4 0.1 0.2 0.4 0.0 0.1 0.2 0.0 0.2 0.0 0.1 0.3 duckey to se that tought of the chief of the diagrams of the chief of bacterial density (OD600) time (h) bacterial density (OD600) bacterial density (OD600) F. prausnitzii; replicates **\\\** 2 // Replicate 1 Replicate 2 Replicate 3 0.64 0.32 Δ fermentation product (mM) δ τ ε ε ε Δ fermentation product (mM) fermentation 1.0 product (mM) rate (mM/OD600) 1.0 0.16 0.08 0.50 0.5 0.5 0.25 0.0 $\leq$ 0.0 0.0 0.6 bacterial density (OD600) time (h) bacterial density (OD600) bacterial density (OD600) B. adolescentis; replicates 2 Replicate 1 Replicate 2 0.32 0.16 0.16 fermentation (₩ E 2 10 glucose (mM) rate (mM/OD600) product (mM) (1/h) glucose 0 0.50 bacterial dens 0.25 ---- 2 $\triangleleft$ 0.3 0.0 0.1 0.2 0.0 0.1 0.2 and so the solution of the sol bacterial density (OD600) bacterial density (OD600) time (h) B. longum; replicates 2 // 1 Replicate 1 Replicate 2 0.64 0.32 0.16 0.08 0.04 glucose (mM) ∆ fermentation product (mM) (MM)Δ fermentation product (mM) rate (mM/OD600) 0 0 rowth rate (1/h) glucose o 1.0 bacterial $\triangleleft$ 0.0 0.1 0.6 bacterial density (OD600) bacterial density (OD600) time (h) C. aerofaciens; replicates 2 Replicate 2 Replicate 1 0.64 0.32 0.16 0.08 glucose (mM) 1.0 0.5 0.0 0.0 ∆ fermentation product (mM) Δ fermentation product (mM) rate (mM/OD600) growth rate (1/h) 0.50 replicate 0.25 $\triangleleft$ $\triangleleft$ 0.0 time (h) bacterial density (OD600) bacterial density (OD600) P. distasonis; replicates 2 Replicate 2 Replicate 3 Replicate 1 0.64 0.32 0.16 0.08 0.0 0.0 0.0 0.0 glucose (mM) $^{\circ}$ $^{\circ}$ $^{\circ}$ $^{\circ}$ $^{\circ}$ $^{\circ}$ $^{\circ}$ product (mM) $^{\circ}$ $^{\circ}$ $^{\circ}$ $^{\circ}$ $^{\circ}$ $^{\circ}$ $^{\circ}$ fermentation product (mM) Δ termentation product (mM) rate (mM/OD600) owth rate (1/h) replicate 0.50 bacterial $\triangleleft$ $\triangleleft$ $\triangleleft$ 0.0 0.1 0.1 0.2 0.2

