

Table S1. Species/strains of lactobacilli used in the study

Strain Code	Species	Commercial product	Strains declared by the manufacturer
LR ATCC 7469	<i>Lacticaseibacillus rhamnosus</i>	//	ATCC 7469
LRM	<i>Lacticaseibacillus rhamnosus</i>	Microbiosys	Rosell/GG
LRD	<i>Lacticaseibacillus rhamnosus</i>	Dicoflor	GG
LP	<i>Lactiplantibacillus plantarum</i>	Biotics G	WCFS1
LF	<i>Limosilactobacillus fermentum</i>	Urotab	DSM 25176
LPA	<i>Lacticaseibacillus paracasei</i>	Biotics G	W20
LA	<i>Lactobacillus acidophilus</i>	Nature's Bounty	LA-14

Table S2. Characterization of *P. aeruginosa* strains isolated from CF patients

Strain code	Sex	Age	Disease stage	Mucoid phenotype (Yes/Not)
PaCF1	F	18	Chronic	N
PaCF4	F	18	Chronic	Y
PaCF11	M	20	Chronic	Y

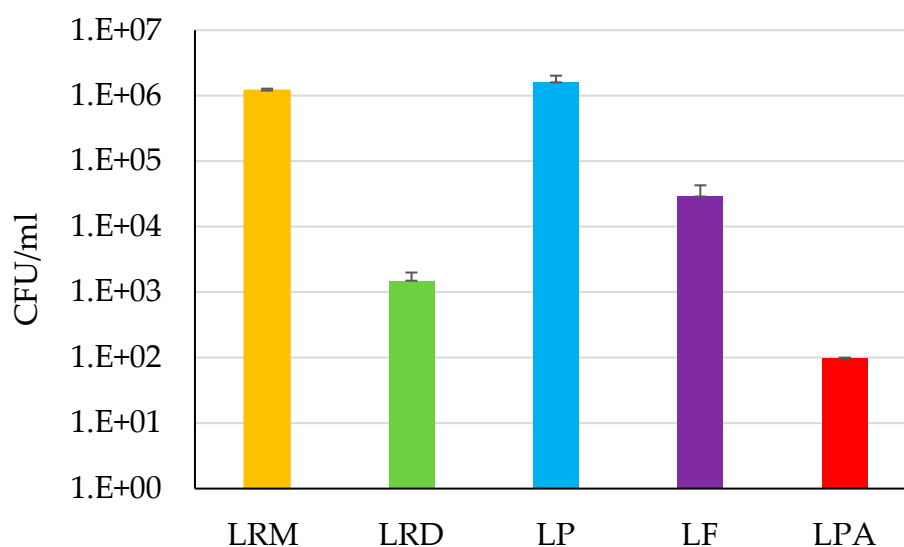


Figure S1. Ability of lactobacilli to grow/survive in artificial sputum medium (ASM) without glucose, starting from an inoculum of 10⁵ CFU/ml. The figure reports the CFU number of the different lactobacilli strains after 24 h of incubation in ASM. Results are shown as mean ± standard error of the mean values (n= 3). LRM and LP showed ability to grow in ASM without glucose although at a lower extent as compared to the presence of glucose (1 Log increase *versus* approximately 3 Logs increase, Figure 1). In contrast, the viable number of LRD, LF and LPA decreased in such conditions.

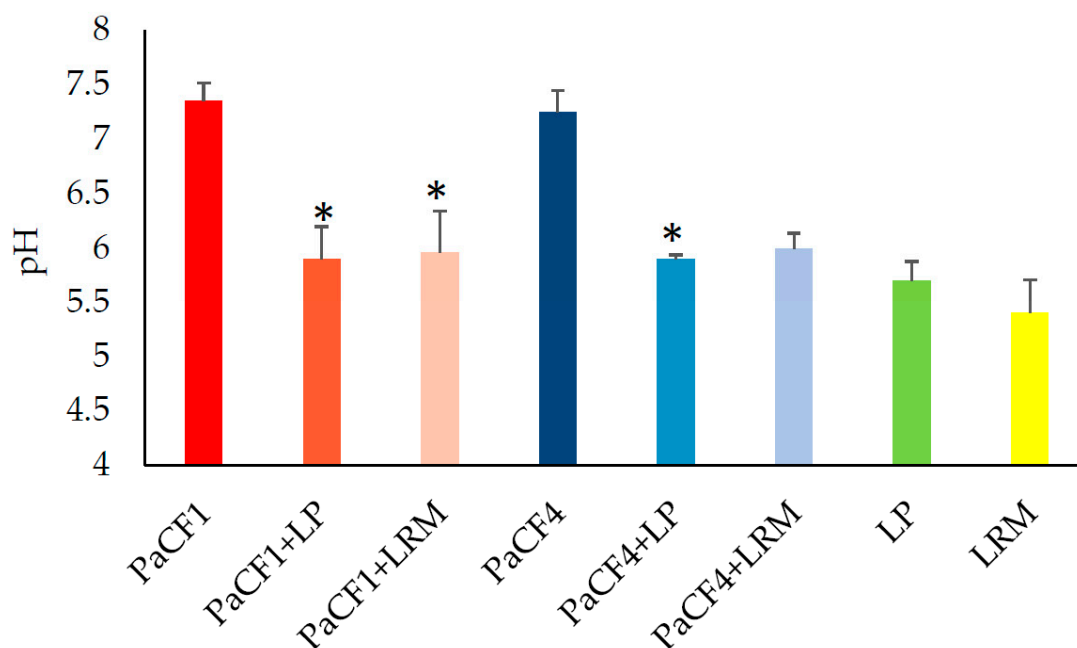


Figure S2. pH values measured by pH-indicator strips in liquid cultures of PaCF1 and PaCF4 alone, and co-cultured with LP and LRM. Lactobacilli were grown in ASM for 9 h before adding *P. aeruginosa*, and the incubation of both bacterial strains was prolonged for an additional 13 h. Results are shown as mean \pm error standard of the mean (n= 7). Statistical significance was evaluated by ANOVA followed by Tukey-Kramer post-hoc test. * $p<0.05$.

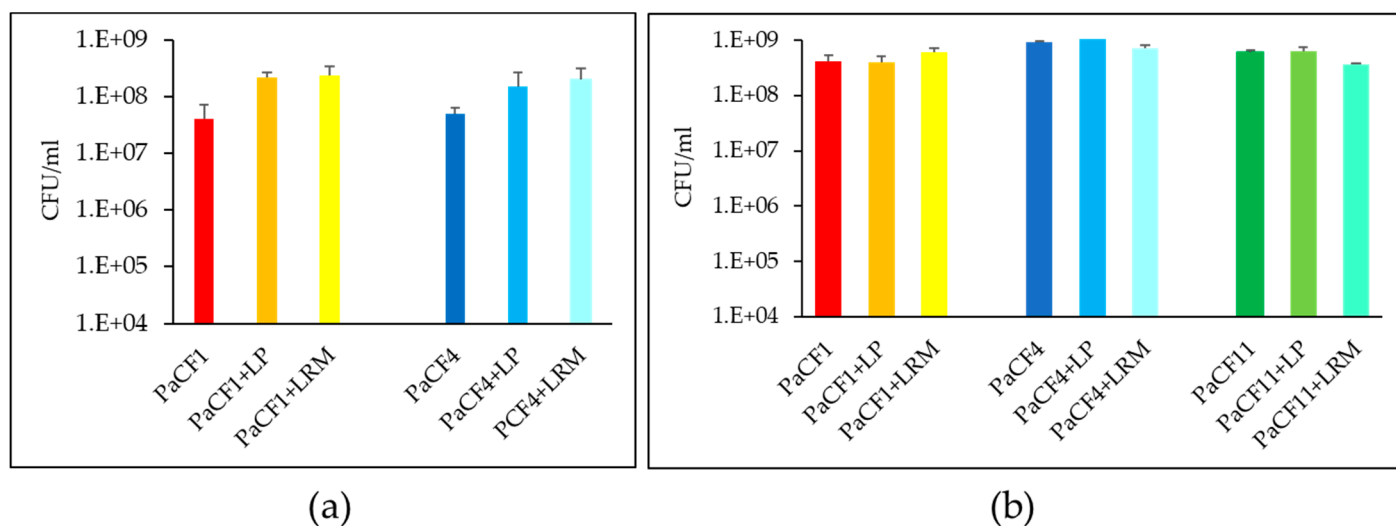


Figure S3. Effects of LP and LRM (tested at 10^8 CFU/mL) on the formation of biofilm by PaCF1 and PaCF4 (a) and on preformed biofilm of PaCF1, PaCF4 and PaCF11 (b). CFU counts of biofilm-associated *P. aeruginosa* were assessed at the end of the incubation period following the washing of the unattached bacteria. Results are shown as mean \pm standard error of the mean (n= 3).