

1 **SUPPLEMENTAL MATERIAL**

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4 **Table S1. Goodness of fit of the Gompertz's model and magnitude of in vivo growth parameters for diverse strains of**
5 **Enterococci under different incubation conditions.** The following modified Gompertz's equation was used:

6 $y = B + A * e^{-e^{(2.781 * (\frac{A}{S}) * (0.04 - x) + 1)}}$; where y is the bacterial count (in log₁₀ CFU/g) obtained at time x (in hours), B (basal) is the
7 initial number of bacteria after induction of infection, A (from *Auctus*, the Latin word for "growth") is the difference between the
8 maximal and minimal predicted bacterial count, and S (slope) is the growth rate. Model fitting (SigmaPlot v12.3, Systat software
9 inc., USA) was evaluated by the adjusted coefficient of determination (adj.R²), the standard error of the estimate (S_{y|x}), normality
10 (Shapiro-Wilk test), homoscedasticity (constant variance test) and non-multicollinearity (defined as a variance inflation factor
11 <10). Comparison of the magnitude of the parameters between experimental groups was done by curve fitting analysis (CFA;
12 Prism 6.04) [23, 24]. Other abbreviation used in the table are: IIS for in vivo inoculum size (log₁₀ CFU/g) measured in non-
13 treated mice at 0 h post-infection; NT and CV for normality and constant variance in terms of yes (passed) or no (failed); VIF:
14 highest variance inflation factor reported; ΔG₂₆₋₂ is the net growth (mean) in non-treated mice; IVP for invalid parameter because
15 NLR failed any of the presumptions normality or homoscedasticity; ** when it was not possible to fit Gompertz' equation to data,
16 the closest equation was exponential decay (parameters not shown). Normal status means that non-neutropenic mice were
17 used. All the parameters are presented with their respective standard errors (±SE).

Strains	Conditions	Status	IIS	Adj.R ²	S _{y x}	NT	CV	VIF	Basal	Slope	Auctus	ΔG ₂₆₋₂
<i>E. faecalis</i> ATCC 29212	Aerobiosis	Neutropenic	5	0.55	0.66	No	No	6	IVP	IVP	IVP	0.01
	Aerobiosis+mucin	Neutropenic	5	0.95	0.29	Yes	No	7	IVP	IVP	IVP	2.07
	Anaerobiosis	Neutropenic	7	0.96	0.14	Yes	No	6	IVP	IVP	IVP	0.84
		Neutropenic	6	0.72	0.52	No	No	4	IVP	IVP	IVP	0.91
		Neutropenic	5	0.65	0.52	No	No	6	IVP	IVP	IVP	0.46
		Normal	4	**	**	**	**	**	**	**	**	**
	Anaerobiosis+mucin	Neutropenic	5	0.99	0.20	Yes	Yes	4	4.81 ± 0.06	0.62 ± 0.03	4.04 ± 0.07	2.64
		Neutropenic	4	0.99	0.13	Yes	Yes	4	3.86 ± 0.09	0.68 ± 0.07	4.94 ± 0.11	3.64
		Normal	4	0.99	0.10	Yes	Yes	2	3.93 ± 0.07	0.74 ± 0.05	4.09 ± 0.09	2.38
<i>E. faecium</i> ATCC 19434	Aerobiosis	Neutropenic	6	0.57	0.35	Yes	No	4	IVP	IVP	IVP	0.19
	Aerobiosis+mucin	Neutropenic	6	0.97	0.21	Yes	Yes	4	5.94 ± 0.08	0.27 ± 0.02	3.26 ± 0.11	2.54
	Anaerobiosis	Neutropenic	6	0.71	0.52	Yes	No	4	IVP	IVP	IVP	0.66
	Anaerobiosis+mucin	Neutropenic	6	0.98	0.18	Yes	Yes	3	6.17 ± 0.06	0.30 ± 0.02	3.12 ± 0.09	2.40
		Neutropenic	7	0.94	0.23	Yes	Yes	5	7.00 ± 0.06	0.37 ± 0.10	2.25 ± 0.19	1.62
<i>E. faecalis</i> ATCC 51299	Anaerobiosis+mucin	Neutropenic	5	0.94	0.31	Yes	Yes	4	4.73 ± 0.16	0.73 ± 0.07	3.04 ± 0.19	1.65
<i>E. faecium</i> ATCC 51559	Anaerobiosis+mucin	Neutropenic	5	0.99	0.10	Yes	Yes	4	5.66 ± 0.06	0.66 ± 0.04	3.09 ± 0.07	1.72

Figure S1. Dissemination of *E. faecium* ATCC 19434 to bloodstream and spleen in neutropenic animals 26 hours after thigh infection with inocula prepared using anaerobiosis+mucin (black bar, N=7 mice), aerobiosis+mucin (light gray bar, N=8) or aerobiosis (dark gray bar, N=7). Data are representative of two independent experiments. The P value of each post-hoc comparison (Dunn for Kruskal-Wallis and Holm-Sidak after ANOVA) is represented above the bars by asterisks (*= $P \leq 0.05$, **= $P \leq 0.01$ and ***= $P \leq 0.001$) or by NS ($P > 0.05$). In spleen, the anaerobiosis+mucin group had higher dissemination than aerobiosis ($\Delta +1.8 \log_{10}$ CFU/g, $P < 0.001$) and aerobiosis+mucin ($\Delta +0.9 \log_{10}$ CFU/g, $P = 0.022$). In blood, the anaerobiosis+mucin group again was associated with greater dissemination than aerobiosis ($\Delta +1.6 \log_{10}$ CFU/g, $P \leq 0.01$) and aerobiosis+mucin ($\Delta +1.1 \log_{10}$ CFU/g, $P \leq 0.01$). Bacteremia was demonstrated in 14% (1 of 7), 63% (5 of 8), and 100% (7 of 7) of the mice allocated to aerobiosis, aerobiosis+mucin and anaerobiosis+mucin, respectively.

