

Supplementary information

CAM/TMA-DPH as a promising alternative to SYTO9/PI for cell viability assessment in bacterial biofilms

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Supplementary Table 1: Quantitative results obtained from CFU counting and microscopic analysis of biofilm surface area coverage and their correlation as Spearman rank (r). Staining results are presented as mean values \pm standard deviation.

Bacterial strain	Treatment	Concentration in mg/L	CFU / mL	Calcein stained biofilm		SYTO9 – PI-stained biofilm	
				Area coverage	Spearman rank (r)	Area coverage	Spearman rank (r)
<i>P. aeruginosa</i> MIBI685	ciprofloxacin	0	6.05×10^7	$56.80\% \pm 8.33\%$	0.91 (****)	$0.56\% \pm 0.14\%$	0.65 (*)
		1.25	7.90×10^5	$48.48\% \pm 3.57\%$		$0.31\% \pm 0.08\%$	
		2.5	5.31×10^5	$45.25\% \pm 1.48\%$		$0.20\% \pm 0.07\%$	
		10	8.45×10^4	$30.98\% \pm 6.99\%$		$0.24\% \pm 0.03\%$	
<i>K. pneumoniae</i> IIMK 217	ciprofloxacin	0	2.35×10^8	$25.23\% \pm 12.35\%$	0.59 (*)	$1.0\% \pm 0.20\%$	– 0.04 (ns)
		2	5.59×10^5	$2.30\% \pm 0.77\%$		$2.50\% \pm 1.70\%$	
		4	2.48×10^5	$1.0\% \pm 0.3 \%$		$1.71\% \pm 1.28\%$	
		8	2.32×10^5	$1.58\% \pm 1.27\%$		$7.71\% \pm 5.69\%$	
<i>S. aureus</i> ATCC 43300	vancomycin	0	7.24×10^8	$85.85\% \pm 2.42\%$	0.88 (****)	$70.2\% \pm 6.99\%$	0.74 (**)
		512	1.18×10^8	$30.42\% \pm 3.97\%$		$8.31\% \pm 2.50\%$	
		2048	6.22×10^7	$26.76\% \pm 7.63\%$		$36.6\% \pm 5.94\%$	
		10000	5.50×10^6	$0.34\% \pm 0.45\%$		$3.18\% \pm 1.45\%$	
<i>E. faecium</i> MIBI701	gentamicin	0	5.45×10^7	$4.13\% \pm 1.26\%$	0.83 (****)	$5.37\% \pm 1.59\%$	0.79 (***)
		64	5.55×10^6	$1.38\% \pm 0.38\%$		$0.75\% \pm 0.54\%$	
		256	8.21×10^5	$0.62\% \pm 0.11\%$		$0.57\% \pm 0.54\%$	
		1024	4.78×10^4	$0.51\% \pm 0.11\%$		$0.17\% \pm 0.08\%$	

r = Spearman correlation rank. Significance was assumed at the p value < 0.05 and was indicated by asterisks: * < 0.05 , ** < 0.01 , *** < 0.001 , **** < 0.0001 , ns = not significant.