



## Supplementary Materials: Contribution of Molecular Structure to Self-Assembling and Biological Properties of Bifunctional Lipid-Like 4-(N-Alkylpyridinium)-1,4-Dihydropyridines

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**Table 1.** Toxicity test data of tested 4-(*N*-alkylpyridinium)-1,4-dihydropyridine derivatives **3**, **6**, **7**, and **9–11** on microorganism species; each compound boundary concentration is depicted in mM. Values of IC<sub>50</sub> on HT-1080 and MH-22A cell lines are included for comparison and are not included in PCA analyses.

Compound		3	6	7	9	10	11
Number of Propargyl Groups		0	1	2	2	0	1
Alkyl Chain Length in Pyridinium		12	12	2	12	16	16
Compounds		Boundary concentration mM					
	boundary concentration, mixi						
P. mirabilis	gram negative	0.001	1	0.1	0.01	0.01	0.0001
M. luteus	gram positive	0.001	0.0001	0.001	0.0001	0.001	0.001
P. aeruginosa	gram negative	0.01	0.01	0.01	0.01	10	0.01
B. subtilis	gram positive	0.01	0.0001	0.1	0.01	0.0001	0.0001
K. pneumoniae	gram negative	0.1	0.1	10	0.1	0.01	10
E. coli	gram negative	0.01	0.001	1	0.0001	0.01	0.01
S. cerevisiae	-	0.001	0.001	1	0.0001	0.0001	0.0001
Cell lines		Cytotoxicity, IC50, µM					
HT-1080	-	0.037	0.004	1	0.002	-	-
MH-22A	-	0.015	0.001	1	0.001	-	-



**Figure 1.** Representative example of determination of critical aggregation concentration (CAC) by DLS method for 4-(*N*-hexadecylpyridinium)-1,4-DHP derivative **11**.

Data of the critical micelle concentration (CAC) was used for data generation of Table 2.