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## Cationic amphiphilic dendrons with effective antibacterial performance

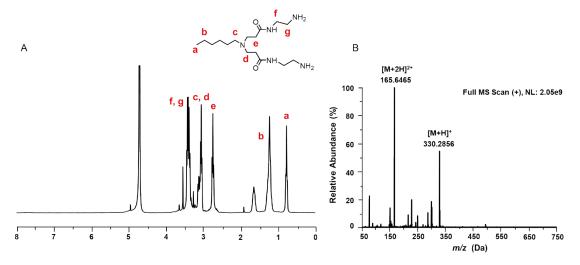
Wei Guo<sup>a,b</sup>, Yongjie Wang<sup>c,d</sup>, Pengqi Wan<sup>a,b</sup>, Hao Wang<sup>b</sup>, Li Chen<sup>a,\*</sup>, ShaoKun Zhang<sup>c</sup>, Chunsheng Xiao<sup>b,\*\*</sup>, Xuesi Chen<sup>b</sup>

- <sup>a</sup> Department of Chemistry, Northeast Normal University, Changchun 130024, P. R. China
- <sup>b</sup> Key Laboratory of Polymer Ecomaterials, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun 130022, P. R. China
- <sup>c</sup> Department of Spinal Surgery, the First Hospital of Jilin University, Changchun, China
- d Molecular Bacteriology Laboratory, Institute of Military Veterinary Medicine, Academy of Military Medical Science, Changchun, China

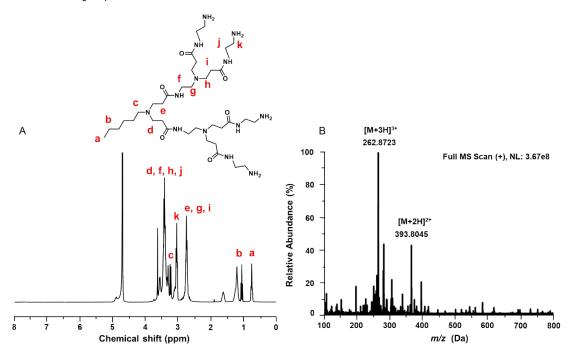
E-mail addresses:

chenl686@nenu.edu.cn (L. Chen); xiaocs@ciac.ac.cn (C. Xiao)

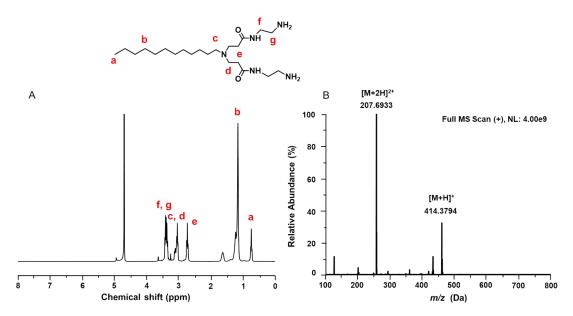
<sup>\*</sup> Corresponding authors



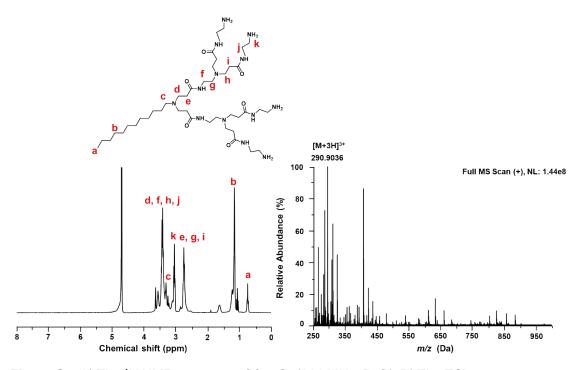
**Figure S1**. A) The  $^1\text{H}$  NMR spectrum of  $C_6\text{-}G_1$  (300 MHz,  $D_2\text{O}$ ). B) The ESI mass spectrum of initiator  $C_6\text{-}G_1$ .



**Figure S2**. A) The  $^1$ H NMR spectrum of  $C_6$ - $G_2$  (300 MHz,  $D_2$ O). B) The ESI mass spectrum of initiator  $C_6$ - $G_2$ .



**Figure S3**. A) The  $^1\text{H}$  NMR spectrum of  $C_{12}\text{-}G_1$  (300 MHz,  $D_2\text{O}$ ). B) The ESI mass spectrum of initiator  $C_{12}\text{-}G_1$ .



**Figure S4**. A) The  $^1\text{H}$  NMR spectrum of  $C_{12}\text{-}G_2$  (300 MHz,  $D_2\text{O}$ ). B) The ESI mass spectrum of initiator  $C_{12}\text{-}G_2$ .

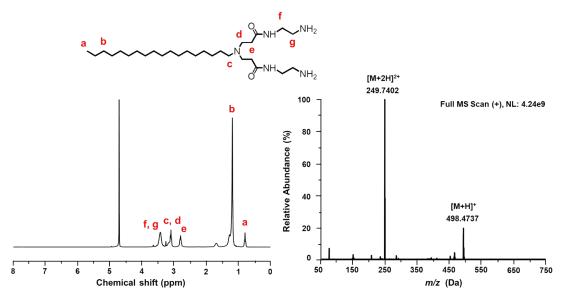
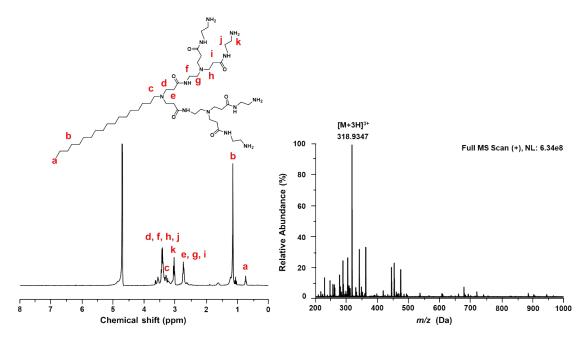
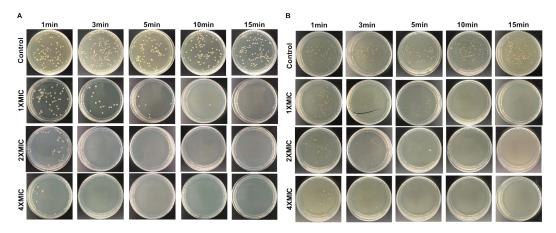


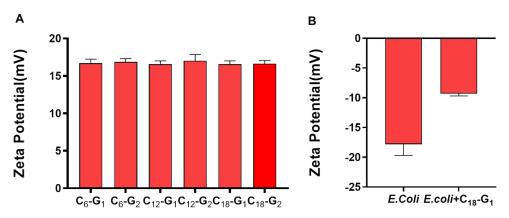
Figure S5. A) The  $^1\text{H}$  NMR spectrum of  $C_{18}\text{-}G_1$  (300 MHz,  $D_2O).$  B) The ESI mass spectrum of initiator  $C_{18}\text{-}G_1.$ 



**Figure S6**. A) The  $^1$ HNMR spectrum of  $C_{18}$ - $G_2$  (300MHz,  $D_2$ O). B) The ESI mass spectrum of initiator  $C_{18}$ - $G_2$ .



**Figure S7** Agar-plate pictures of (A) *E. coli* and (B) *S. aureus* after incubation with C18-G1 at varying concentrations (1 × MIC, 2 × MIC, and 4 × MIC) and different time (1 min, 3 min, 5 min, 10 min and 15 min).



**Figure. S8** (A) Zeta potentials of  $C_n$ - $G_x$  (B) Zeta potentials of *E. coli* before and after being incubated with  $C_{18}$ - $G_1$ .