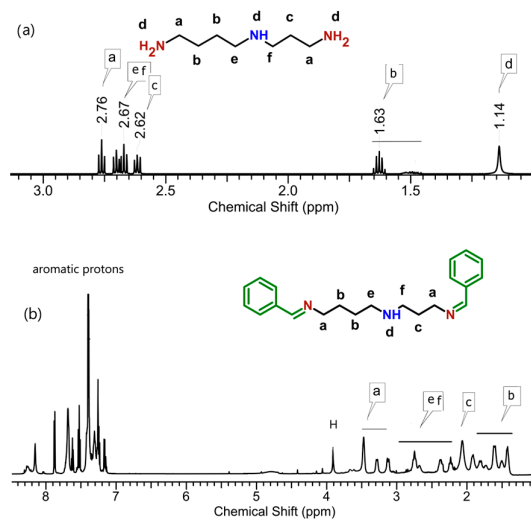




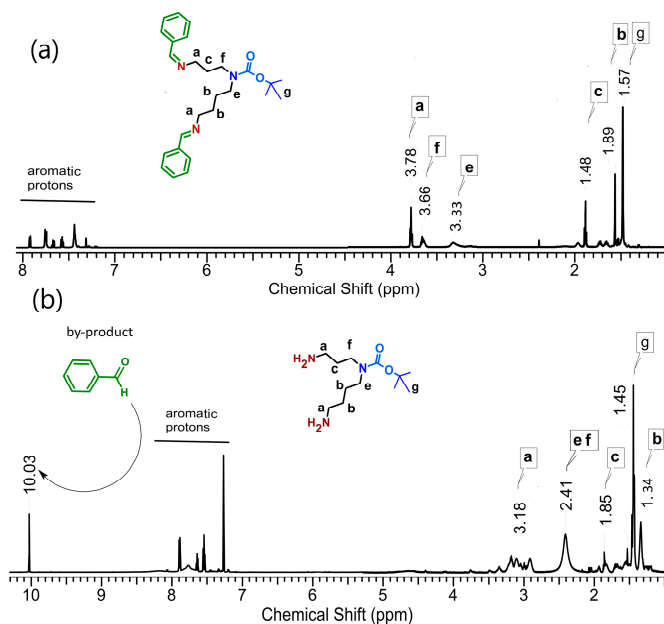
Supplementary Materials

## Bactericidal biodegradable linear polyamidoamines obtained with the use of endogenous polyamines

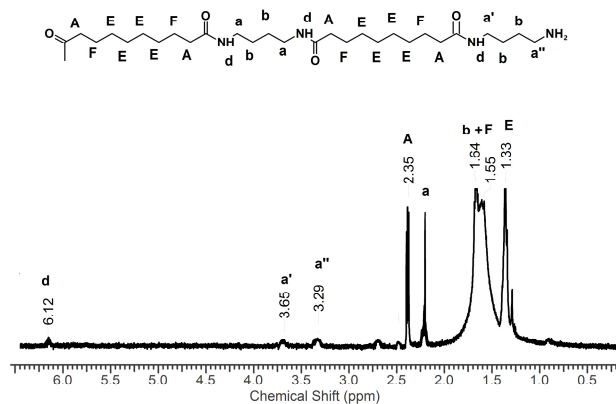
Natalia Śmigiel - Gac<sup>1\*</sup>, Anna Smola-Dmochowska<sup>1</sup>, Katarzyna Jelonek<sup>1</sup>, Monika Musiał-Kulik<sup>1</sup>, Renata Barczyńska-Felusiak<sup>2</sup>, Piotr Rychter<sup>2</sup>, Kamila Lewicka<sup>2</sup> and Piotr Dobrzyński<sup>1,2\*</sup>



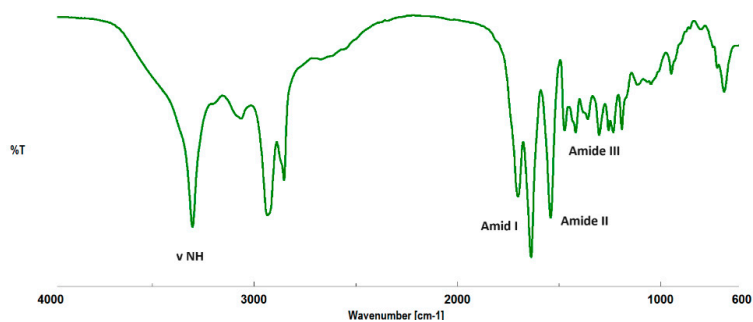
**Figure S1.** <sup>1</sup>H NMR (in CDCl<sub>3</sub>) spectrum of spermidine (a) before protecting and (b) after deprotecting the primary amino groups.



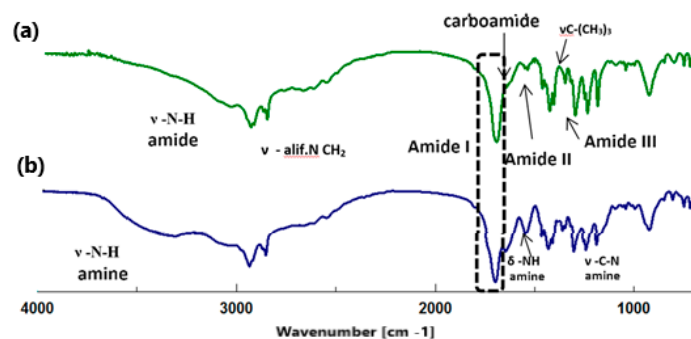
**Figure S2.** <sup>1</sup>H NMR (in CDCl<sub>3</sub>) spectrum of a spermidine derivative with protected amino groups; (a) with protected primary and secondary amino groups, (b) after deprotecting primary amino groups (before cleaning).



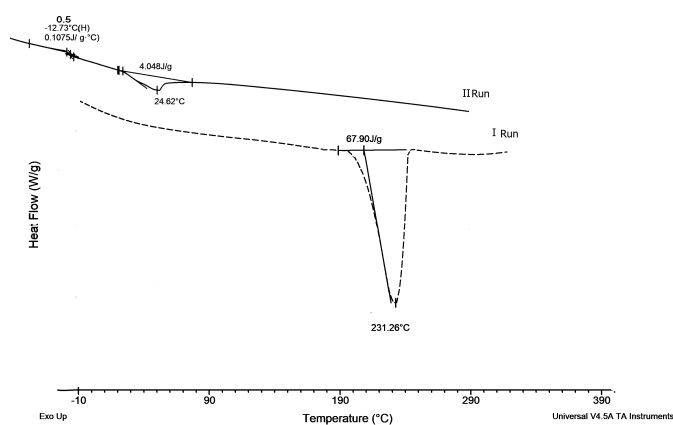
**Figure S3.**  $^1\text{H}$  NMR (in  $\text{CDCl}_3$ ) spectrum of polyamide obtained with putrescine.



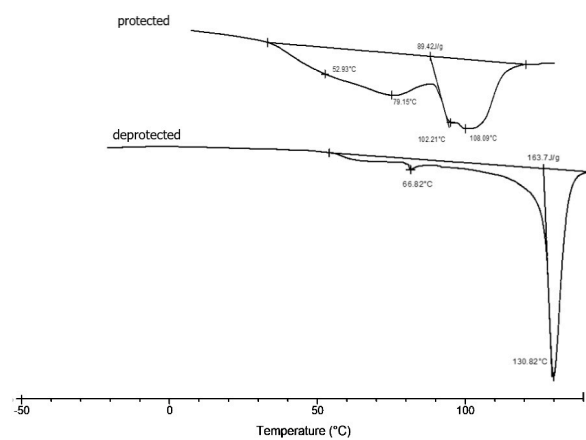
**Figure S4.** FTIR spectrum of polyamide obtained with putrescine.



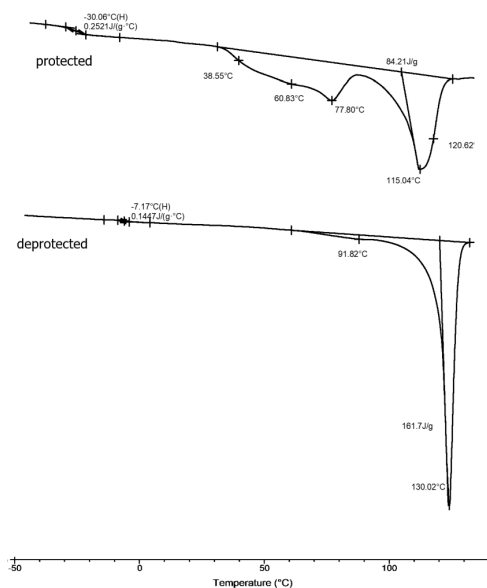
**Figure S5.** FTIR spectrum of polyamidoamine obtained with norspermidine: a) before deprotection and b) after deprotection of the secondary amino groups;



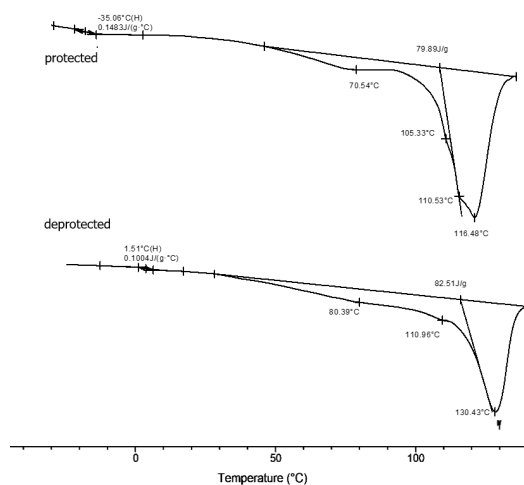
**Figure S6.** DSC thermograms (I and II run) of polyamide obtained with putrescine



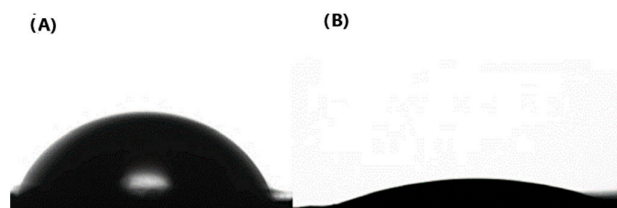
**Figure S7.** DSC thermograms of the run I, a polyamidoamine obtained using norspermidine with protected and deprotected amino groups.



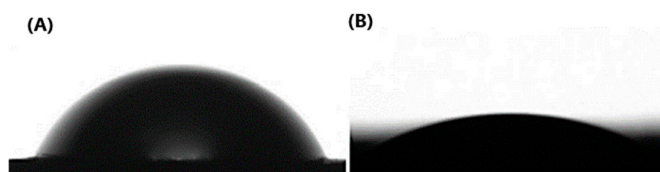
**Figure S8.** DSC thermograms of run I, a polyamidoamine obtained using spermidine with protected and deprotected amino groups.



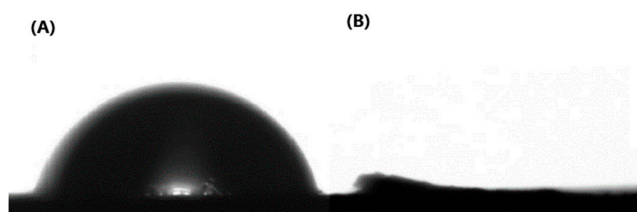
**Figure S9.** DSC thermograms of run I, a polyamidoamin obtained using spermine with protected and deprotected amino groups.



**Figure S10.** Measurement of the contact angle of the surface of a film cast from polyamidoamine obtained with norspermidine (A) with protected amino groups, (B) after deprotection of amino groups.



**Figure S11.** Measurement of the contact angle of the surface of a film cast from polyamidoamine obtained with spermidine (A) with protected amino groups, (B) after deprotection of amino groups.



**Figure S12.** Measurement of the contact angle of the surface of a film cast from polyamidoamine obtained with spermine (A) with protected amino groups, (B) after deprotection of amino groups.