Supporting Information File for the Manuscript Entitled

Engineering of pH-triggered nanoplatforms based on novel poly(2-methyl-2oxazoline)-*b*-poly[2-(diisopropylamino)ethyl methacrylate] diblock copolymers with tunable morphologies for biomedical applications

Peter Černoch,¹ Alessandro Jager,^{1,*} Zulfiya Černochová,¹ Vladimir Sincari,¹ Lindomar J.C. Albuquerque,² Rafal Konefal,¹ Ewa Pavlova,¹ Fernando C. Giacomelli,² Eliezer Jager^{1,*}

¹Institute of Macromolecular Chemistry, Czech Academy of Sciences, Heyrovsky Sq. 2, 16206 Prague, Czech Republic

² Centro de Ciências Naturais e Humanas, Universidade Federal do ABC, Santo André 09210-580, Brazil

*Corresponding Author: Dr. Eliézer Jäger

e-mail: jager@imc.cas.cz



Figure S1. Autocorrelation functions C(q,t) monitored at $\theta = 90^{\circ}$ for PMeOx₅₁-*b*-PDPA₈₃, PMeOx₅₁-*b*-PDPA₁₁₃, PMeOx₂₆-*b*-PDPA₃₅ and PMeOx₂₆-*b*-PDPA₅₅ self-assemblies according to the legends ($c_{polymer} = 0.5 \text{ mg·mL}^{-1}$).



Figure S2. DLS relaxation frequency as a function of the square of the scattering vector for $PMeOx_m$ -*b*-PDPA_n micelles (A) and polymersomes (B) according to the legends.



Figure S3. Full Zimm plot obtained for aqueous solution of PMeOx₂₆-b-PDPA₅₅ at concentration range 0.1-0.5 mg·mL⁻¹.



Figure S4. Molar ratio of deprotonated species per diamino group (NR₃) as a function of pH for PDPA.



Figure S5. Zeta potential values as a function of pH during the titration of PMeOx₅₁-*b*-PDPA₁₁₃ (left) and PMeOx₂₆-*b*-PDPA₃₅ (right) block copolymers.



Figure S6. Hydrodynamic radius as a function of pH during the titration of the PMeOx₅₁*b*-PDPA₁₁₃ (left) and PMeOx₂₆-*b*-PDPA₃₅ (right) block copolymers.