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Supplementary Materials: Dexamethasone Loaded-Ureasil Hydrophobic Membrane for Bone Guided Regeneration

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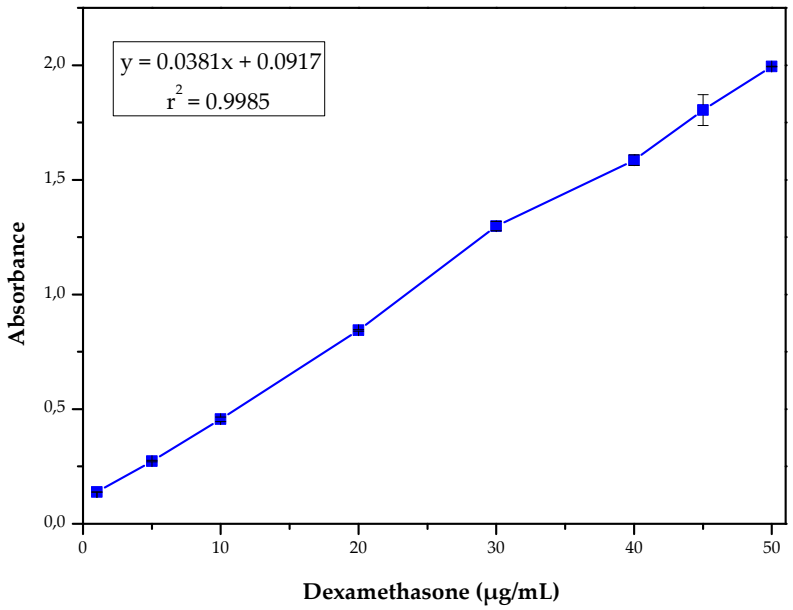


Figure S1. Linear regression of dexamethasone.

Table S1. Percentage of release to membranes from ureasyl-polyether precursor mixtures: 90:10; 80:20; 70:30, and 60:40. Results are expressed as the mean ± SD of triplicates (n = 3).

Time (h)	Release (%)			
	u-PPO400/2000 90:10	u-PPO400/2000 80:20	u-PPO400/2000 70:30	u-PPO400/2000 60:40
0	0.00	0.00	0.00	0.00
1	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.70 ± 0.0034
5	0.00	0.00	0.10 ± 0.0087	1.00 ± 0.00935
6	0.00	0.00	0.24 ± 0.00617	2.3 ± 0.00112
12	0.00	0.00	1.30 ± 0.00351	5.05 ± 0.00586
24	0.00	0.90 ± 0.0015	4.20 ± 0.005	7.60 ± 0.00418
48	0.98 ± 0.0033	2.50 ± 0.0059	6.20 ± 0.0024	11.40 ± 0.0056
72	2.00 ± 0.0033	4.60 ± 0.0046	10.90 ± 0.0024	15.00 ± 0.00252
96	3.10 ± 0.0044	6.90 ± 0.0024	14.50 ± 0.00733	17.2 ± 0.00833
110	3.30 ± 0.003	9.00 ± 0.004	17.00 ± 0.0033	18.5 ± 0.00762
134	5.40 ± 0.004	10.6 ± 0.0056	19.20 ± 0.00651	21.7 ± 0.01184

Table S2. Korsmeyer-Peppas equation parameters for the different dexamethasone release curves for u-PPO400/2000 membranes at the proportions 90:10, 80:20, 70:30, and 60:40.

u-PPO400/2000 Proportion	r^2 adjusted	Equation Parameters		Release mechanism
		K	*n*	
(90:10)	0.9953	0.0011	1.72	Case II
(80:20)	0.9978	0.0117	1.39	Case II
(70:30)	0.9941	0.1259	1.034	Case II
(60:40)	0.9936	0.6836	0.8888	Case II