Supplementary Information

Synthesis of a Biodegradable Polymer in Gas Expanded Solution: Effect of Process on Cytocompatibility

Sherry Y. Lee*, Xia Zhong*, Peter Valtchev and Fariba Dehghani[†]

School of Chemical and Biomolecular Engineering, University of Sydney, Sydney, NSW 2006,

Australia

*These two authors contributed equally to this work

†Corresponding author: \mathbf{T} +61 2 93514794 | \mathbf{F} +61 2 93512854 **E** fariba.dehghani@sydney.edu.au polymers

Supplementary Tables

Sample	$M_{\rm n} \left({\rm g/mol} ight)^{\rm a}$	$M_{\mathbf{w}}\left(\mathbf{g/mol}\right)^{\mathrm{a}}$	PDI ^b	Fu (mol %) ^c	U. PEG (%) ^d	Yield (%) ^e
P-0	5880	9750	1.66	0.75	60	13
$P-0^M$	5640	9010	1.60	1.78	34	37
P-1	6050	8570	1.42	0.89	36	20
P-3	5730	8230	1.44	1.67	34	44
P-5	5720	8640	1.51	1.55	35	45
$P-5^{100}$	6230	9320	1.50	1.79	36	41
$P-5^{150}$	5550	7930	1.43	1.74	45	40
P-7	5630	8080	1.44	1.48	35	45
P_{Conv}	5990	8860	1.48	1.06	37	42

S.Table 1 Molecular properties, yield and PEG residue analysis of the synthesised

^a Calculated from GPC using PEG standard. ^b Polydispersity was an estimation with the exclusion of the residual PEG part, therefore can only be used as a horizontal comparison between the samples. ^c Fumarate molar percent in the polymer calculated from ¹HNMR integral. ^d Unreacted PEG was determined from GPC chromatograph using PEG calibration curve. ^e The yield was determined gravimetrically based on mass of polymer minus amount of unreacted PEG.