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SUPPLEMENTARY MATERIAL

3D-Printable Biodegradable Polyester Tissue Scaffolds for Cell Adhesion

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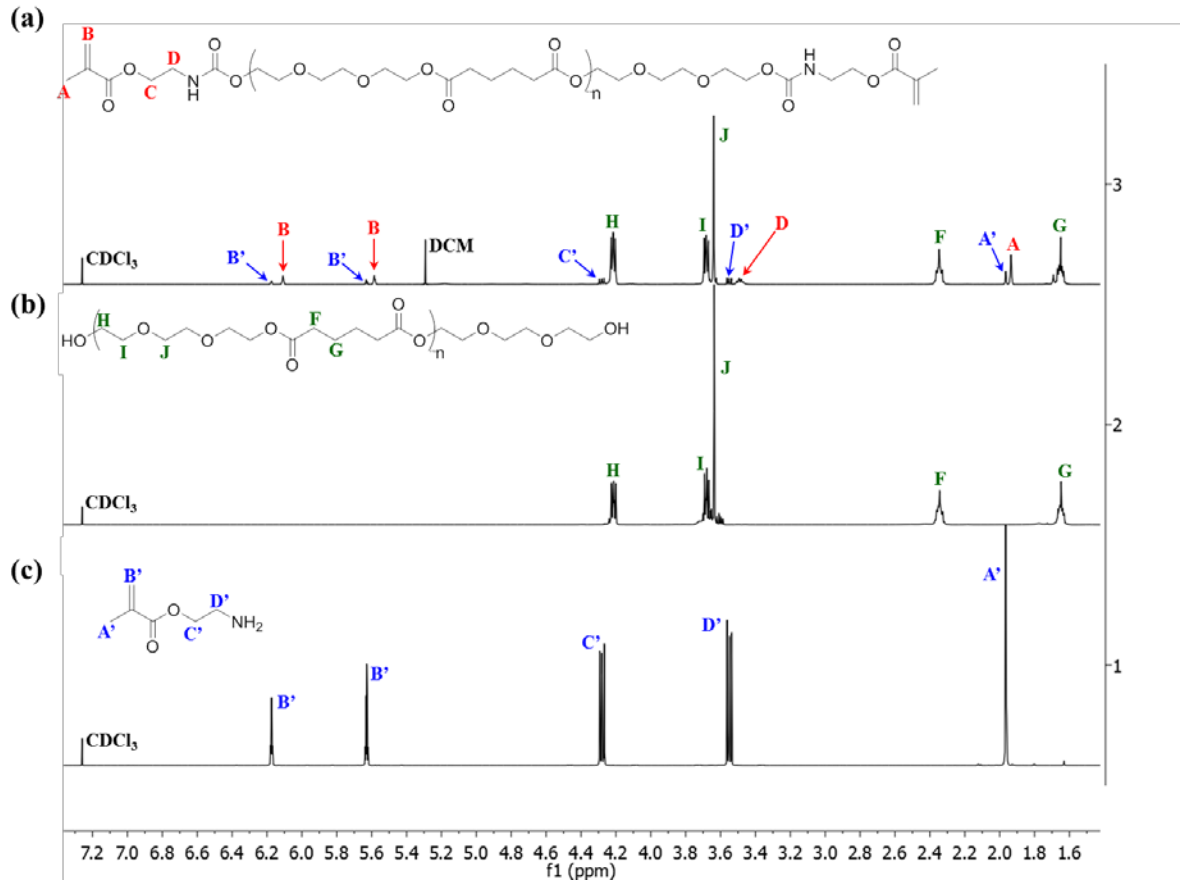
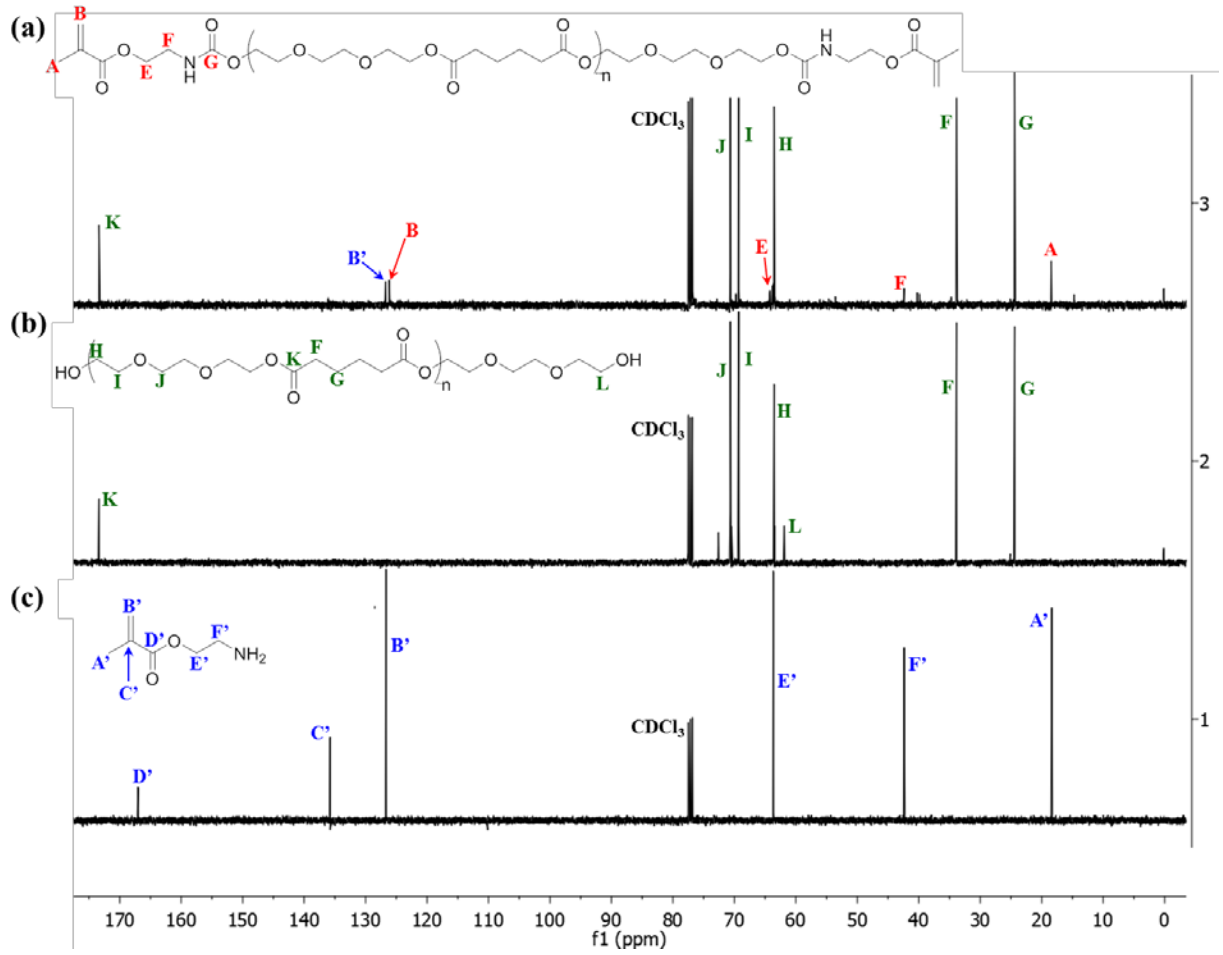
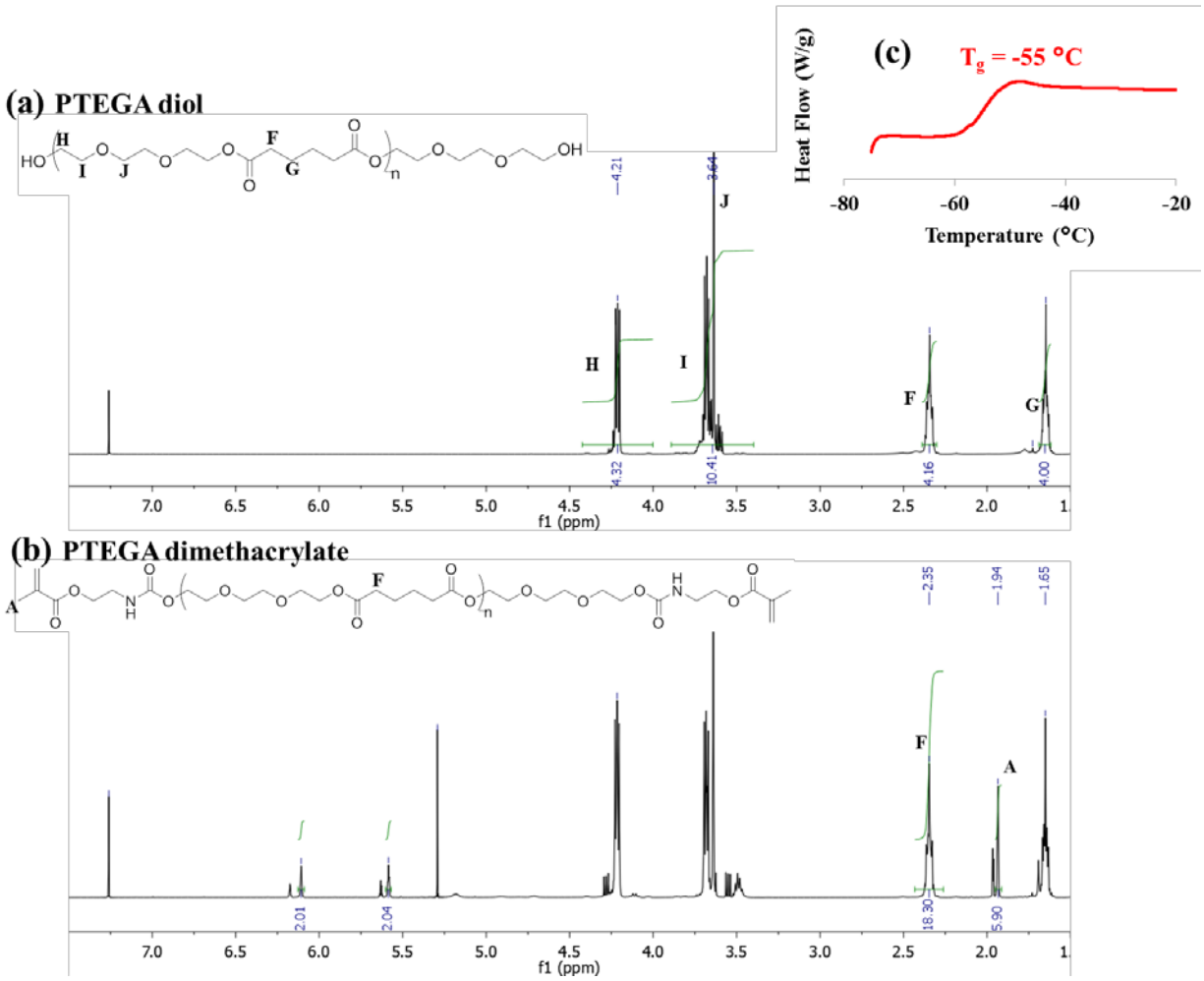


Supplementary Figure 1. *^{1}H NMR structure confirmation for (a) poly(tri(ethylene glycol) adipate)) (PTEGA) dimethacrylate and (b) PTEGA diol, overlayed with (c) decarboxylated functionalization reactant 2-aminoethyl methacrylate.*



Supplementary Figure 2. *^{13}C NMR structure confirmation for (a) poly(tri(ethylene glycol) adipate)) (PTEGA) dimethacrylate and (b) PTEGA diol, overlayed with (c) decarboxylated functionalization reactant 2-aminoethyl methacrylate.*



Supplementary Figure 3. *^{1}H NMR spectra and peak integrations used for molecular weight determination (M_n) of (a) poly(tri(ethylene glycol) adipate)) (PTEGA) diol and (b) PTEGA dimethacrylate. (c) Differential Scanning Calorimetry (DSC) trace showing the PTEGA dimethacrylate glass transition temperature*

^{1}H NMR endgroup analysis provided the number average molecular weight (M_n) of the poly(tri(ethylene glycol) adipate)) (PTEGA) diol precursor. These calculations are as follows:

$$\frac{\int H + \int I + \int J}{\int G} = \frac{12n + 12}{4n} = \frac{4.32 + 10.41}{4.00} \Rightarrow n = 4.40$$

Repeat unit = 260.3 g/mol
Endgroups = 150.2 g/mol
PTEGA diol M_n = 1,296 g/mol

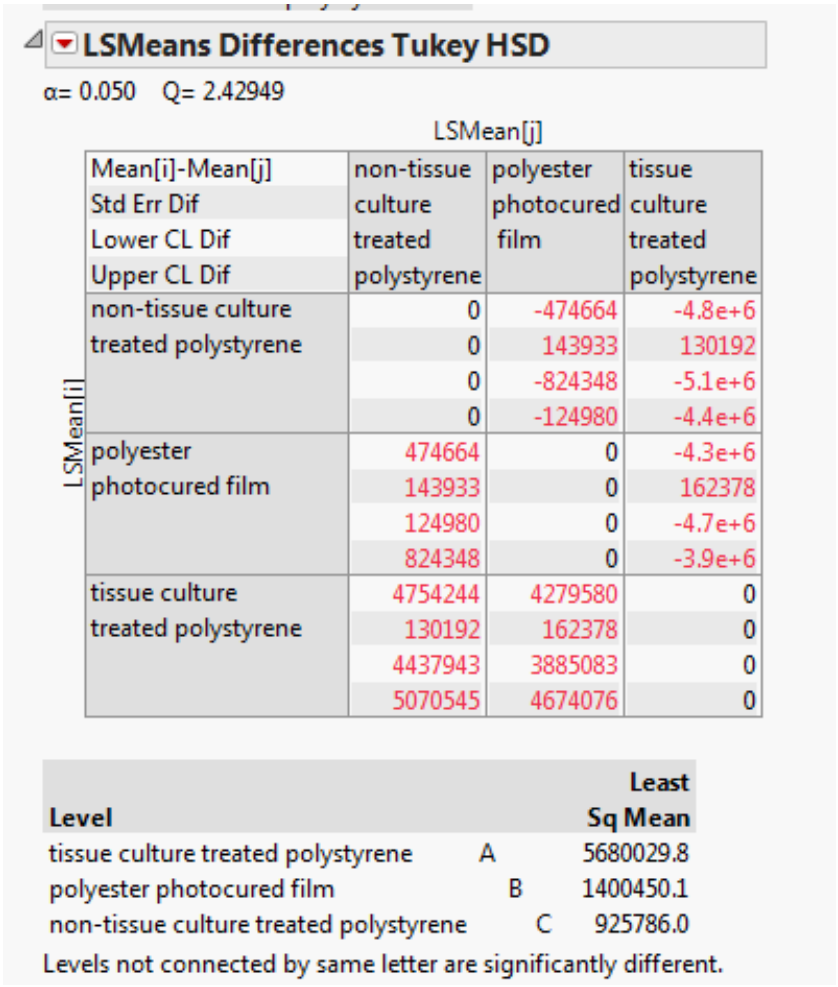
Based on the above PTEGA diol integrations for **F** and degree of polymerization *n*, the PTEGA dimethacrylate **F** peak was set to $\boldsymbol{F} = 4.16 * 4.40 = 18.30$. Then, % methacrylate termination was based on the actual **A** integration value over the theoretical 6.00 integration value. Accounting for the methacrylate endgroups afforded the PTEGA dimethacrylate M_n.

% methacrylate termination = $\frac{5.90}{6.00} = \mathbf{98\ \%}$

M_n of the PTEGA dimethacrylate can be estimated by adding the theoretical molecular weight of the 2-isocyanatoethyl methacrylate to the PTEGA diol molecular weight and accounting for the % methacrylate termination, as was calculated above.

PTEGA dimethacrylate $M_n = 1{,}296 + (155.15 * 2) * 0.98$

PTEGA dimethacrylate M_n = 1,600 g/mol



LSMeans Differences Tukey HSD

α= 0.050 Q= 2.42949

LSMean[i]	Mean[i]-Mean[j] Std Err Dif Lower CL Dif Upper CL Dif	LSMean[j] non-tissue culture treated polystyrene	polyester photocured film	tissue culture treated polystyrene
non-tissue culture treated polystyrene		0 0 0 0	-474664 143933 -824348 -124980	-4.8e+6 130192 -5.1e+6 -4.4e+6
polyester photocured film		474664 143933 124980 824348	0 0 0 0	-4.3e+6 162378 -4.7e+6 -3.9e+6
tissue culture treated polystyrene		4754244 130192 4437943 5070545	4279580 162378 3885083 4674076	0 0 0 0

Level		Least Sq Mean
tissue culture treated polystyrene	A	5680029.8
polyester photocured film	B	1400450.1
non-tissue culture treated polystyrene	C	925786.0

Levels not connected by same letter are significantly different.

Supporting Figure 4. *Tukey's Honest Significant Difference (HSD) test for statistical significance. As shown, the three populations are not connected by the same letter and are therefore significantly different at* $p < 0.050$.