

# **Applications of Light-Based 3D Bioprinting and Photoactive Biomaterials for Tissue Engineering**

Xueqin Zhang <sup>1,\*</sup>, Xin Zhang <sup>1</sup>, Ying Li <sup>1</sup> and Yuxuan Zhang <sup>2,\*</sup>

<sup>1</sup> College of Chemistry and Materials Engineering, Beijing Technology and Business University, Beijing 100048, China

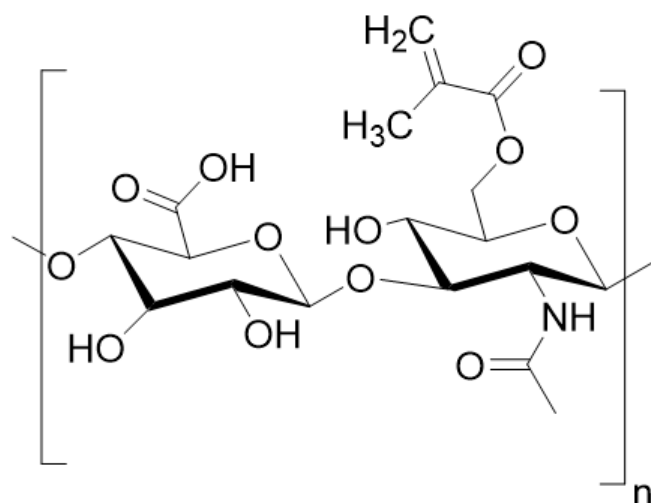
<sup>2</sup> FuYang Sineva Materials Technology Co., LTD., Beijing 100176, China

\* Correspondence: zhangxueqin@btbu.edu.cn (X.Z.);  
zhangyuxuan@sineva.com.cn (Y.Z.)

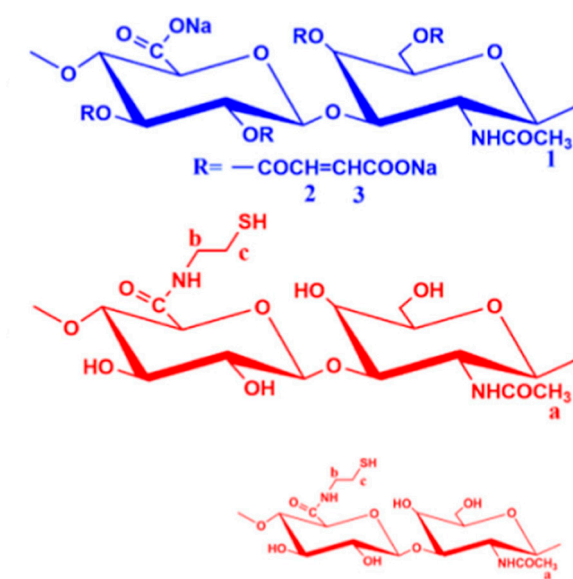
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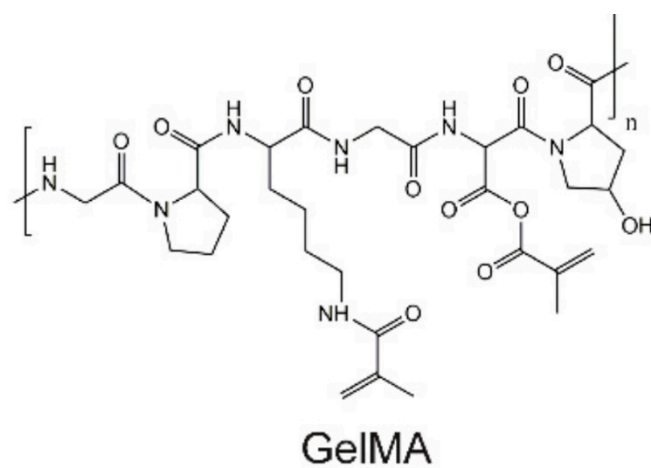
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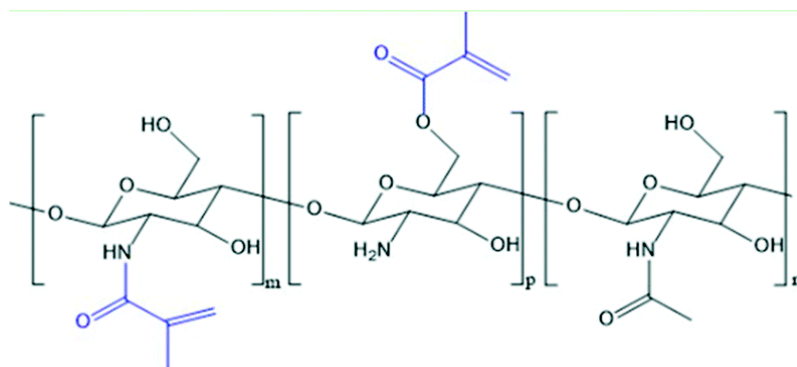
**Figure S1.** Structure of HAMA.



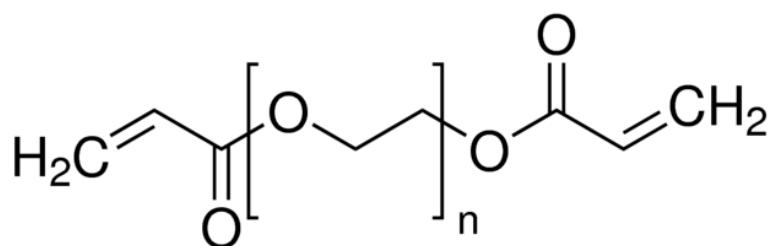
**Figure S2.** Structures of maleated sodium hyaluronate (MHA) and thiolated sodium hyaluronate (SHHA) [1].



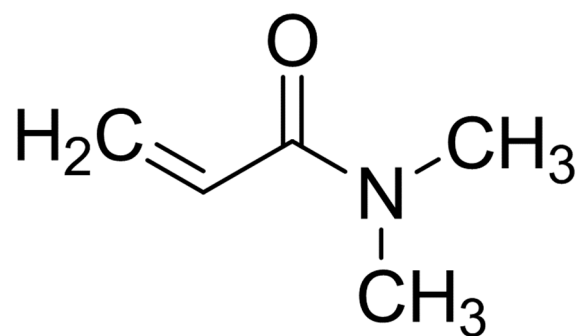
**Figure S3.** The chemical structure of methacrylated gelatin (GelMA) [2].



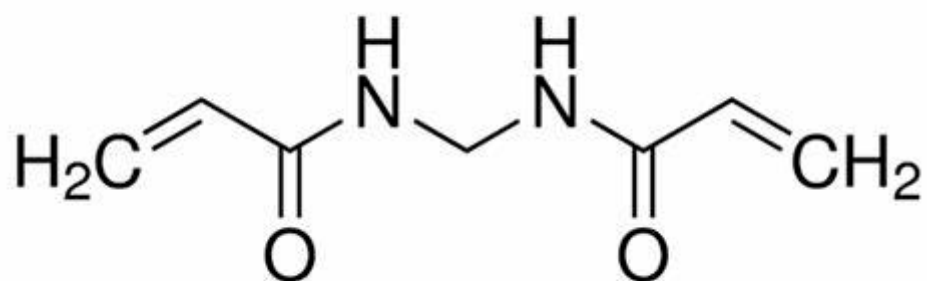
**Figure S4.** Structure of methacrylated chitosan [3].



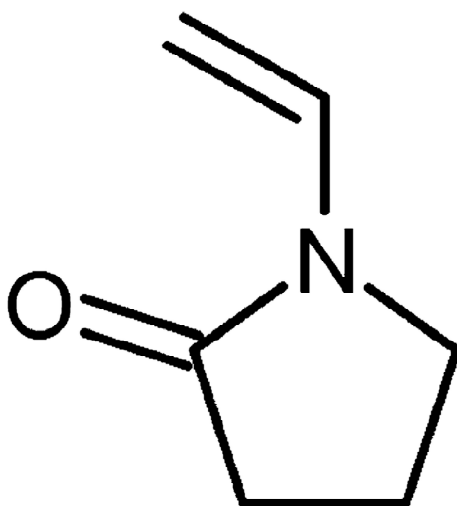
**Figure S5.** Structure of poly(ethylene glycol) diacrylate (PEGDA).



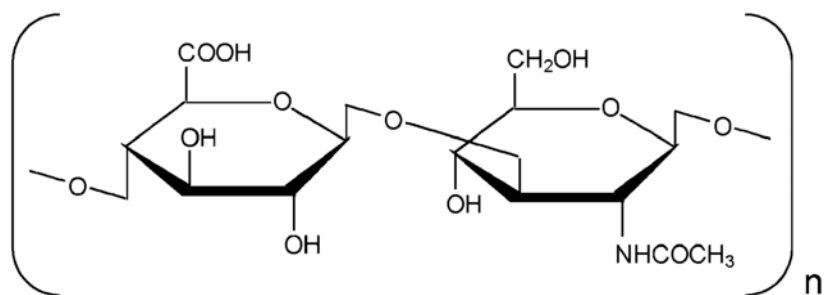
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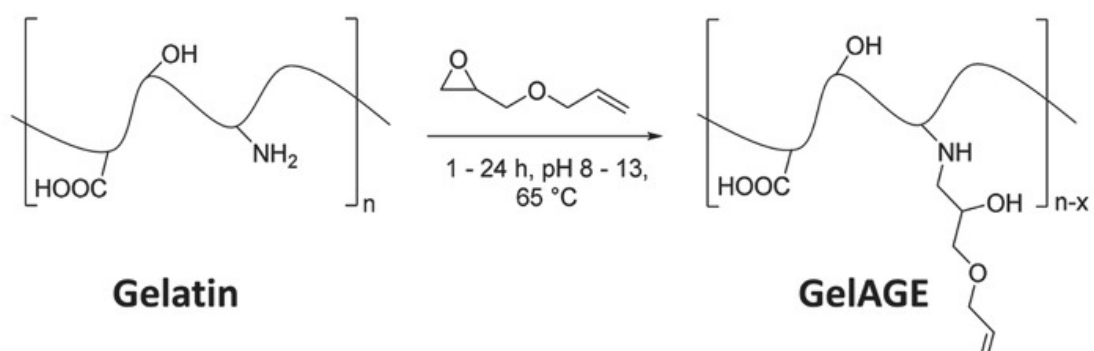
**Figure S7.** Structure of methylene bis-acrylamide (MBAAm).



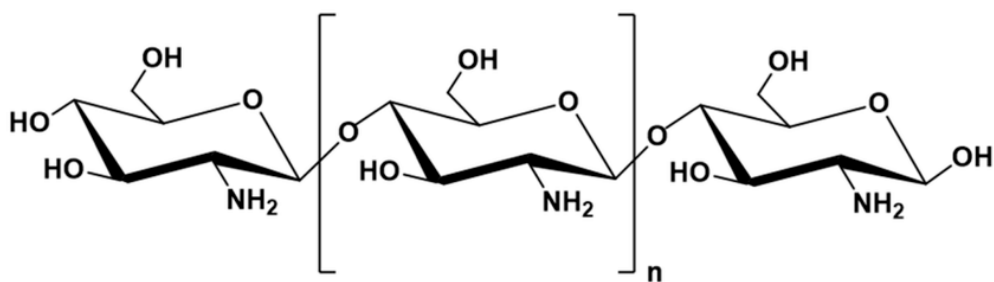
**Figure S8.** Structure of ninylpyrrolidone (NVP).



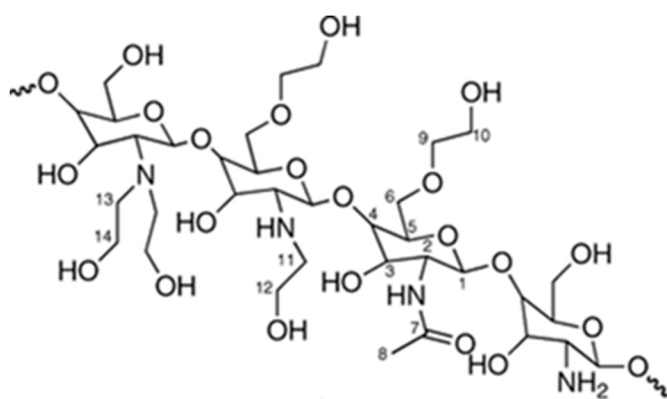
**Figure S9.** Structure of gelatin[4].



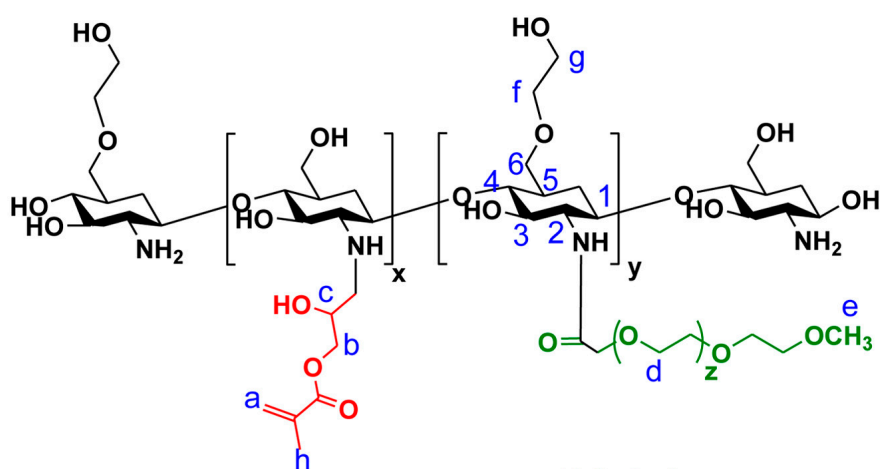
**Figure S10.** Synthetic routine of allyl glycidyl ether (AGE) modified gelatin [5].



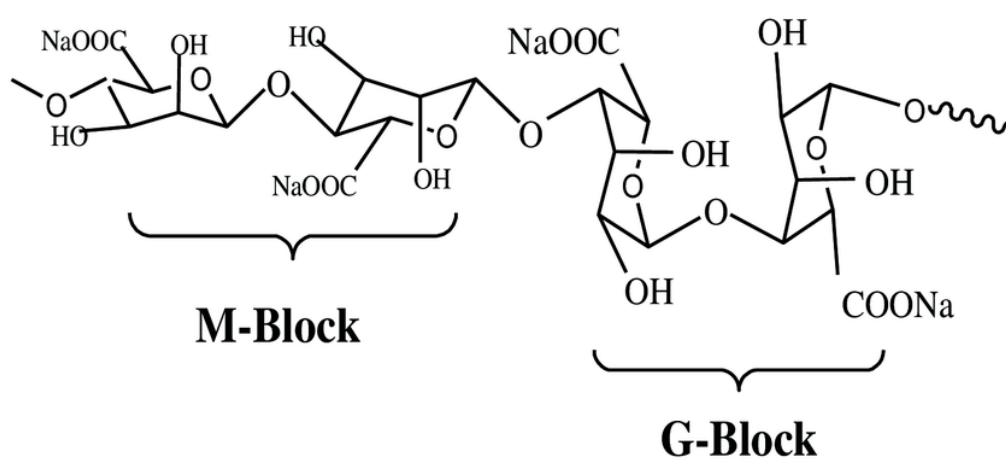
**Figure S11.** Structure of chitosan.



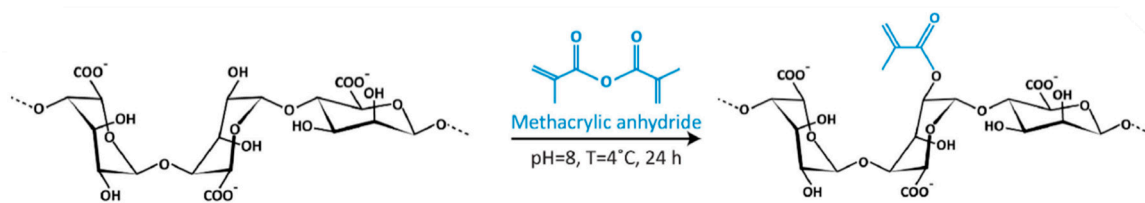
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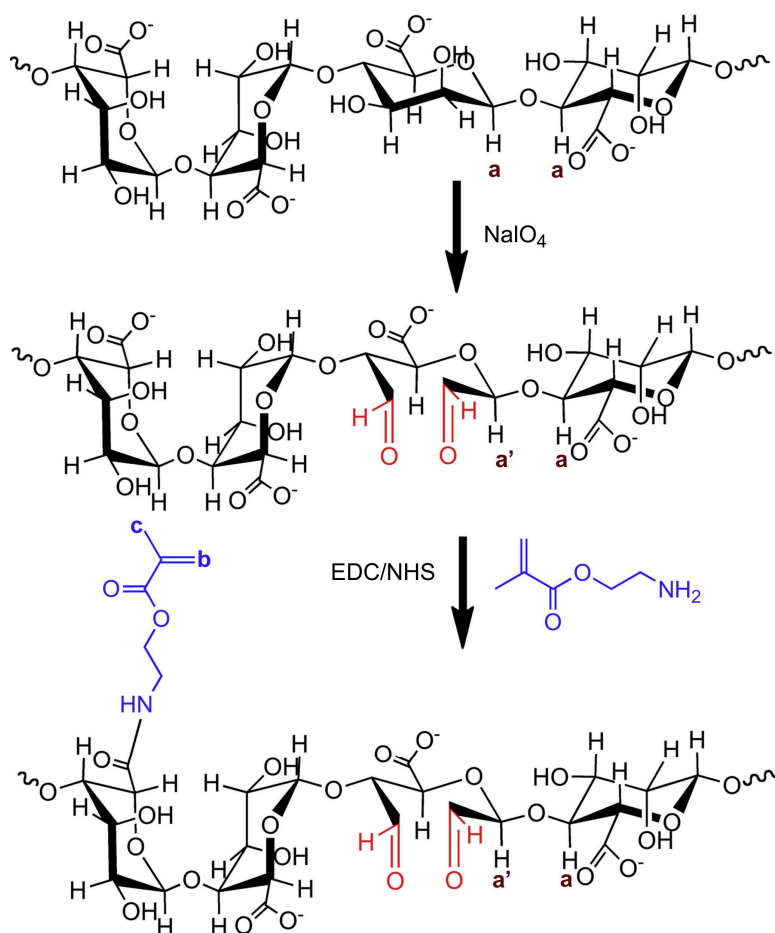
**Figure S13.** Structure of methacrylated GC (MeGC) [7].



**Figure S14.** Structure of alginate [8].

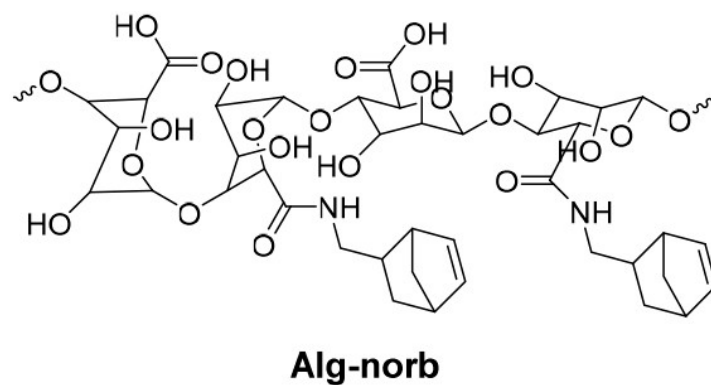


**Figure S15.** Synthetic routine of methacrylated alginate (Alg-MA) treating the secondary hydroxyl groups with MAA [9].

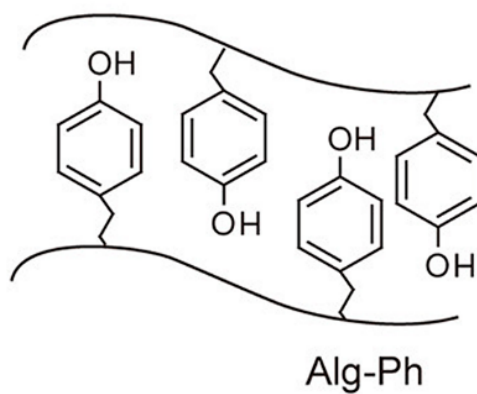


**Figure S16.** The synthetic routine of oxidized and methacrylated alginates (OMA) [10].

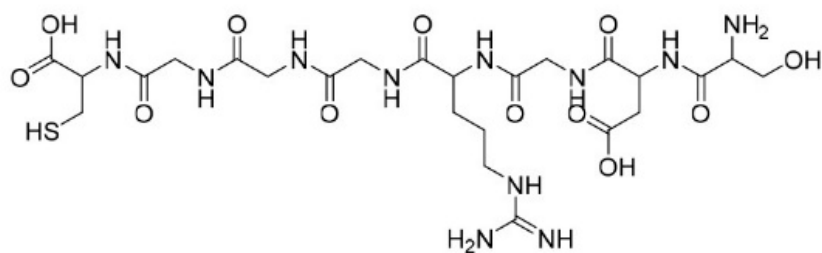




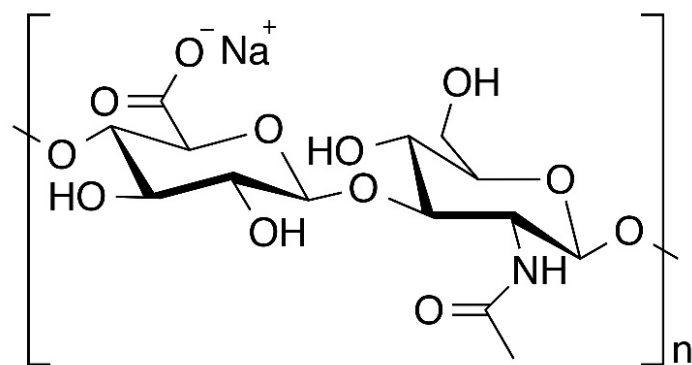
**Figure S17.** Structure of norbornene functionalized alginate[11].



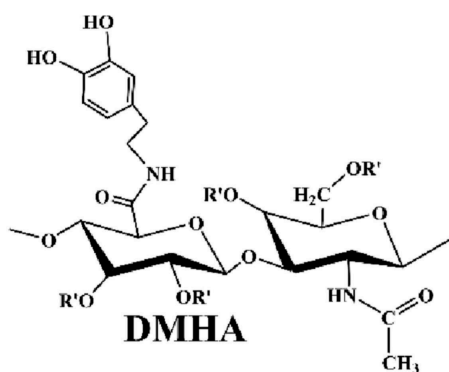
**Figure S18.** Structure of phenyl group functionalized alginate (Alg-Ph)[12].



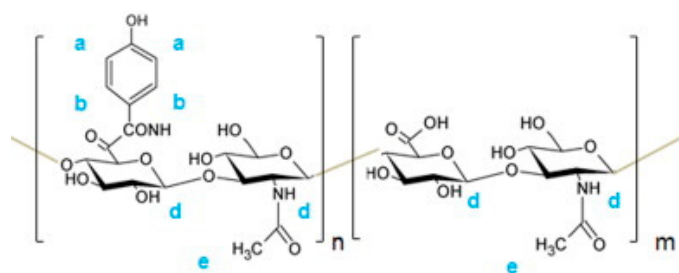
**Figure S19.** Structure of RGD Peptide Sequence (CGGGRGDS) [11].



**Figure S20.** 1 Structure of hyaluronan N-acetyl-D-glucosamine and  $\beta$ -D-glucuronic acid linked by  $\beta$ -1,3 and  $\beta$ -1,4 glycosidic bonds.



**Figure s21.** Structure of dopamine-conjugated maleic hyaluronic acid (DMHA) [13].



**Figure S22.** Structure of tyramine-functionalized hyaluronic acid (HA-Tyr) [14].

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