Electronic Supplementary Material (ESI) for Biomaterials Science.

Supporting info

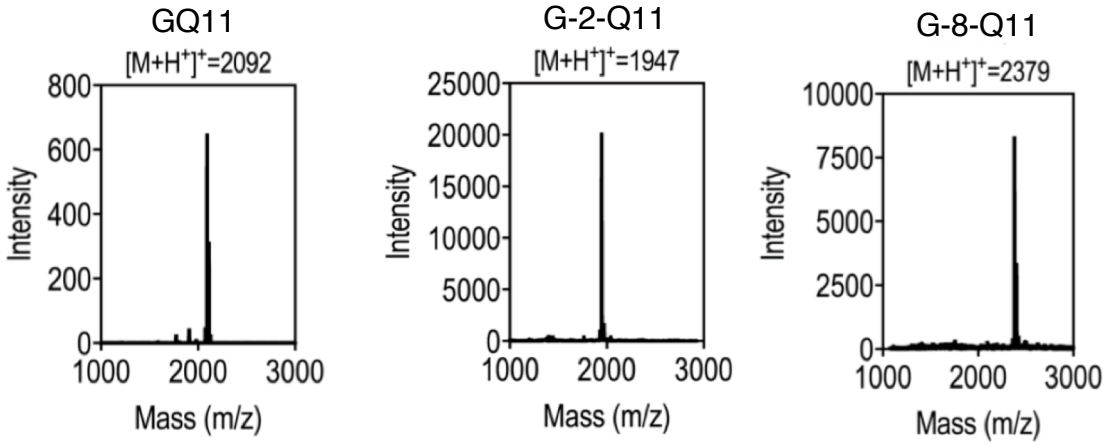

Figure S1: MALDI-TOF mass spectra of GQ11, G-(SG)-Q11, and G-$(SG)_4$-Q11 used in this study.

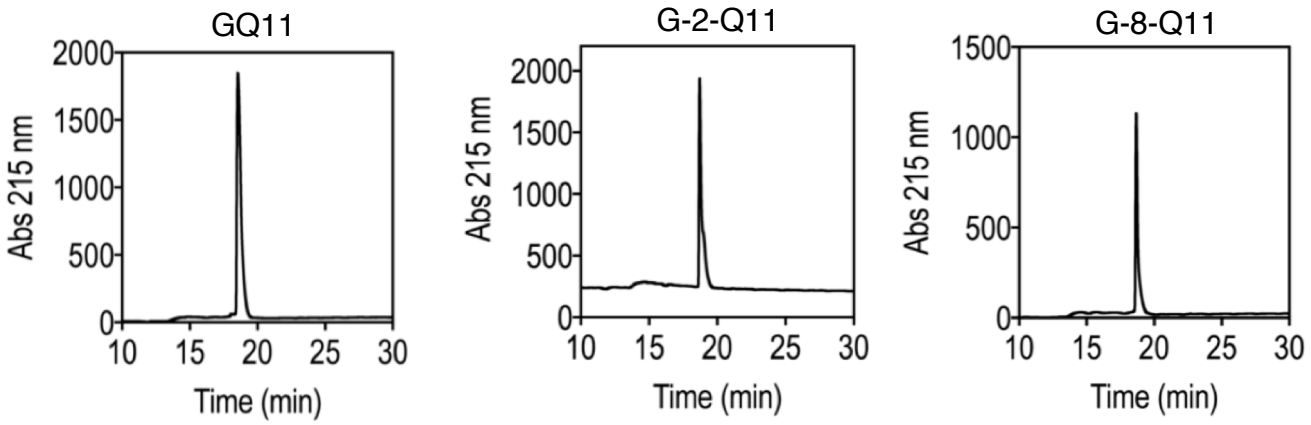

Figure S2: HPLC traces of GQ11, G-2-Q11, and G-8-Q11 used in this study.

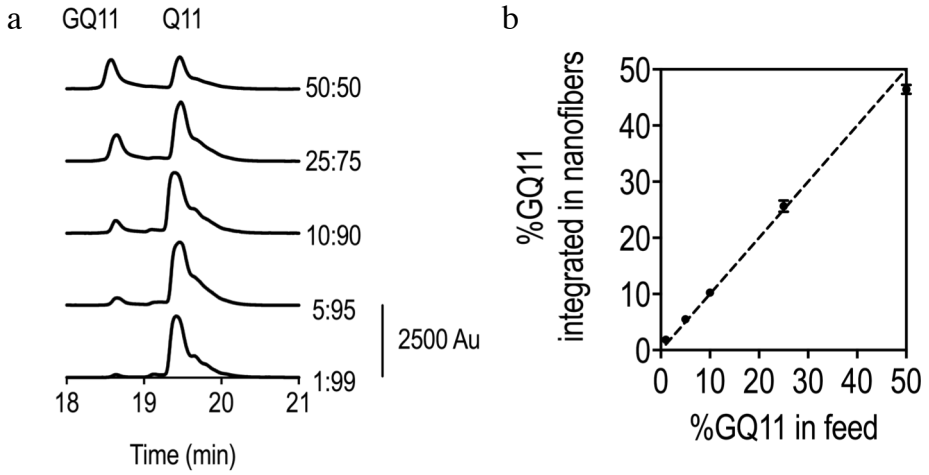

Figure S3: Co-assembly of GQ11 and Q11 in nanofibers with tunable carbohydrate content. (a) HPLC traces of co-assembled GQ11:Q11 nanofibers. (b) Quantification of area under the peaks from HPLC traces demonstrates a linear relationship between peptide in the feed and peptide integrated into the nanofiber. Data reprinted from Restuccia, A., Tian, Y.F., Collier, J.H., Hudalla, G.A., Cellular and Molecular Bioengineering 8(3): 471-487, 2015.

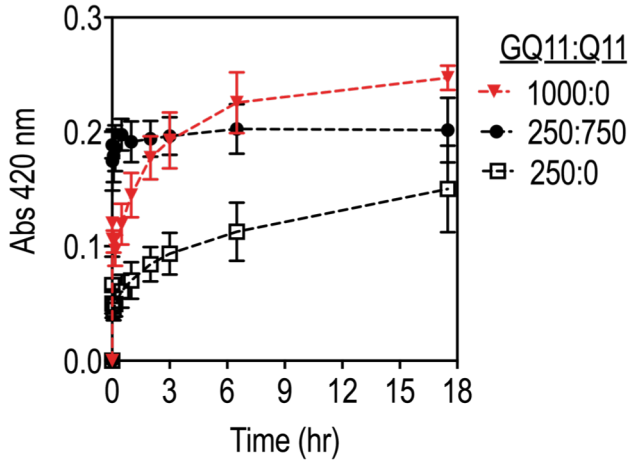

Figure S4 Rate of nanofiber aggregation depends on carbohydrate density. Co-assembled GQ11:Q11 nanofibers (1 mM total peptide) aggregated faster in the presence of WGA (t=0) than GQ11 nanofibers (250 μM total peptide) as determined by a turbidity assay. The faster aggregation of co-assembled GQ11:Q11 nanofibers compared to GQ11 nanofibers was not due to differences in total peptide concentration. In particular, GQ11 nanofibers (1 mM total peptide) also aggregated more slowly than co-assembled GQ11:Q11 nanofibers (1 mM total peptide) despite the former having 4-fold more GlcNAc ligand.

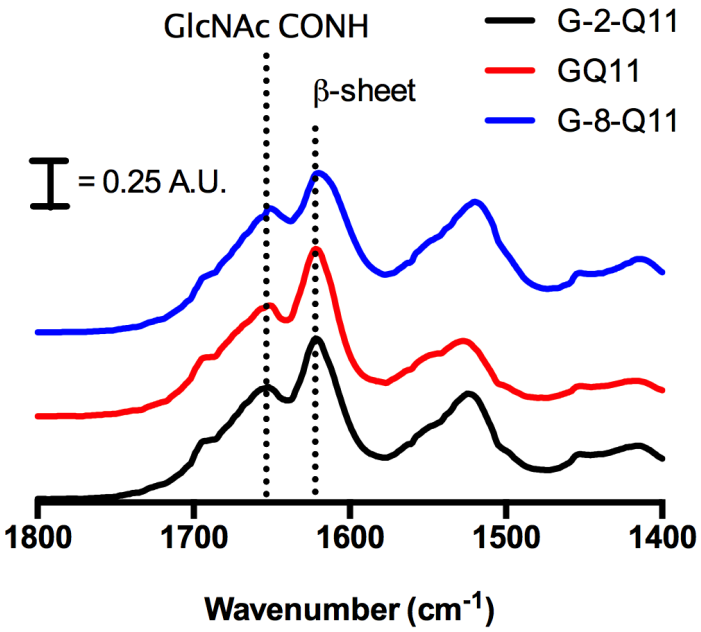

Figure S5 Attenuated total reflectance FTIR of 5 mM G-2-Q11, GQ11, and G-8-Q11 in H_2O. The peak at ~1625 cm^{-1} is assigned to the Q11 β-sheet. The peak at ~1660 cm^{-1} is assigned to the C-2 acetamido of GlcNAc.