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Supplementary Information

The Bioconjugation Mechanism of Purine Cross-linkers Affects Microstructure and Cell Response to Ultra Rapid Gelling Purine-Chitosan Sponges

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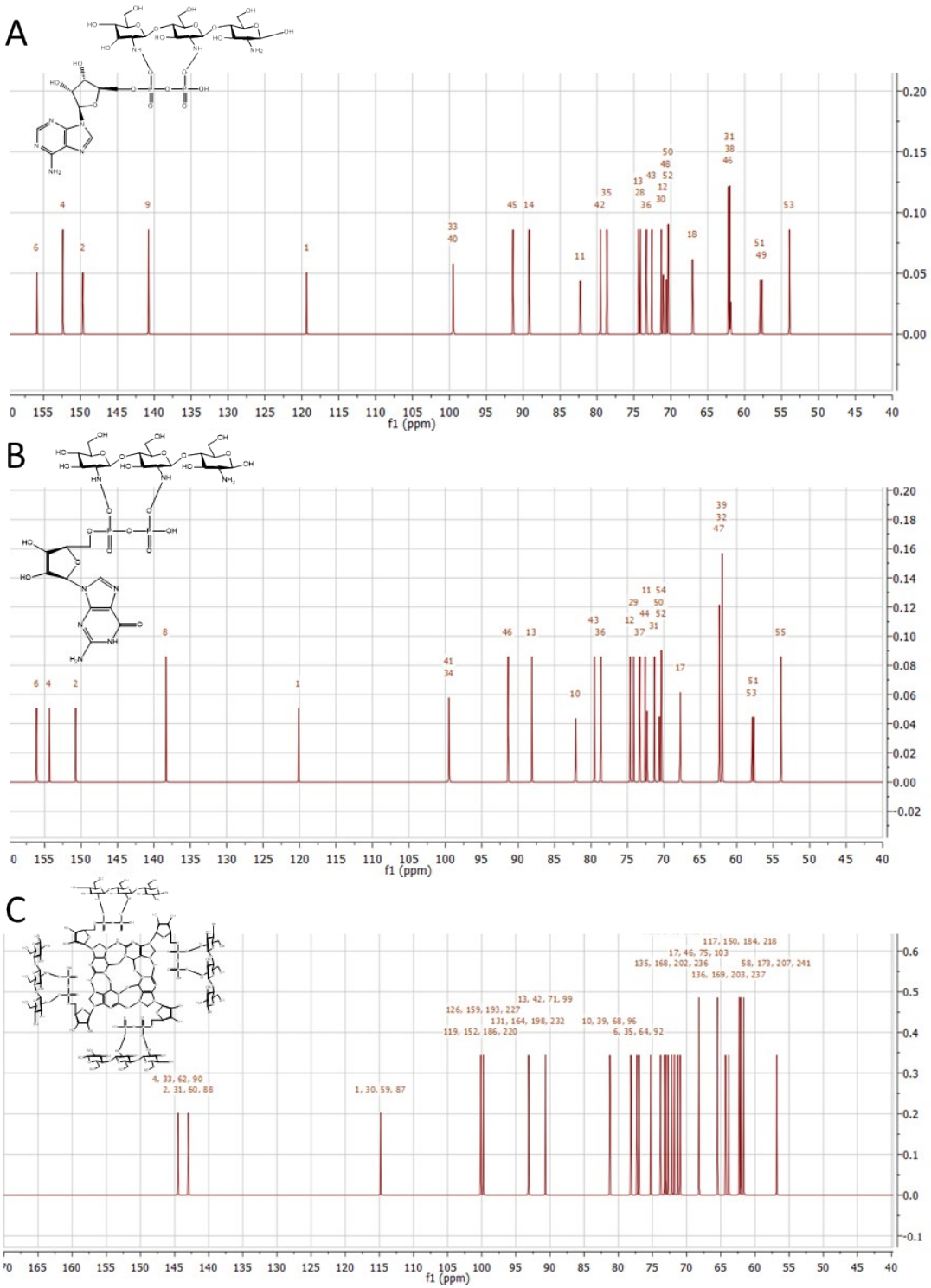

Figure S1. Predicted ^{13}C-NMR spectra of different chitosan/purine molecular structures. A: Spectrum of ADP-chitosan cross-linking. B: Spectrum of GDP-chitosan cross-linking. C: Spectrum of GDP-chitosan cross-linking with quadruplex structure created by the arrangement of four guanines through Hoogsteen hydrogen bonds

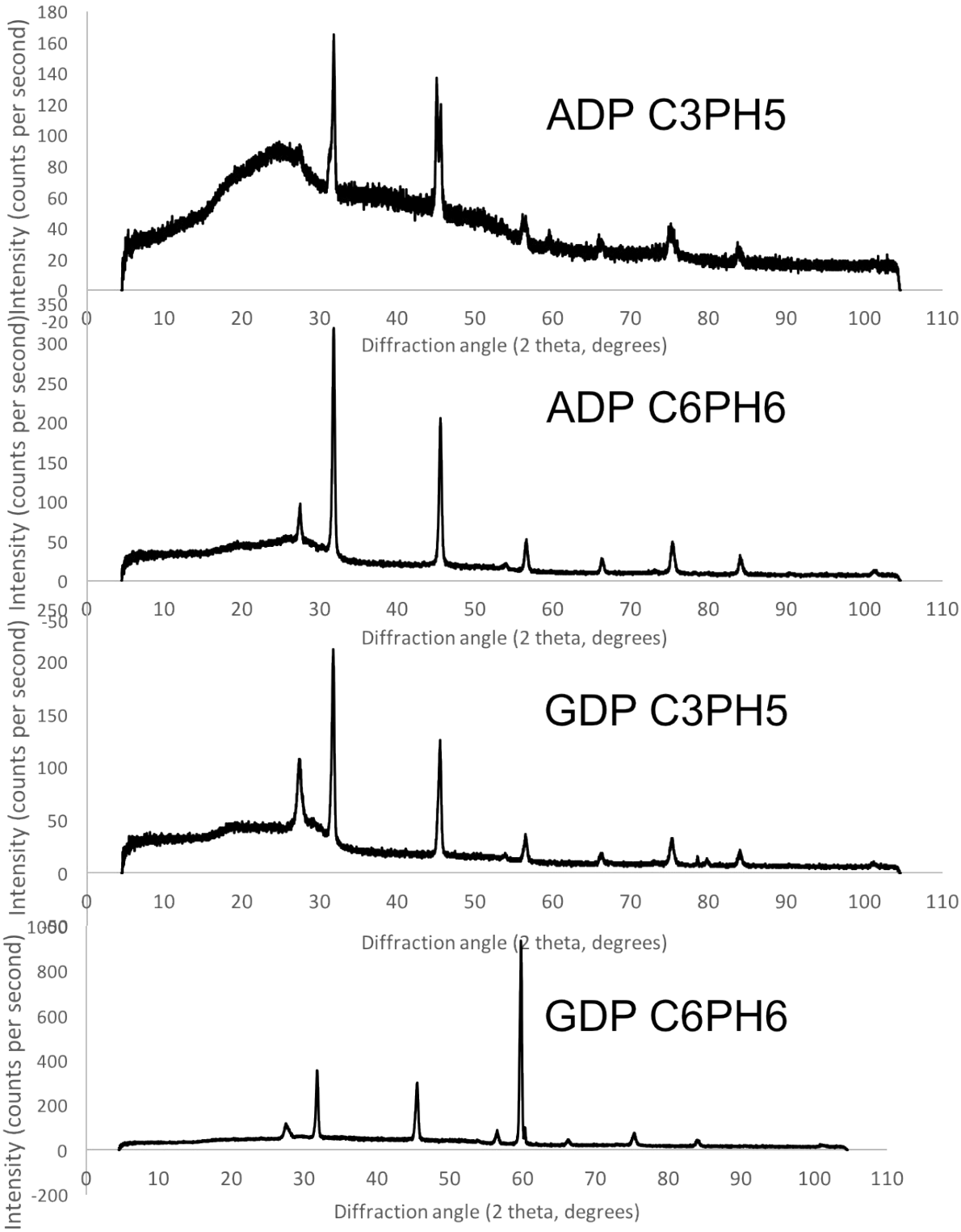

Figure S2. X-ray diffraction spectra for vaious formulations of chitosan based sponges.

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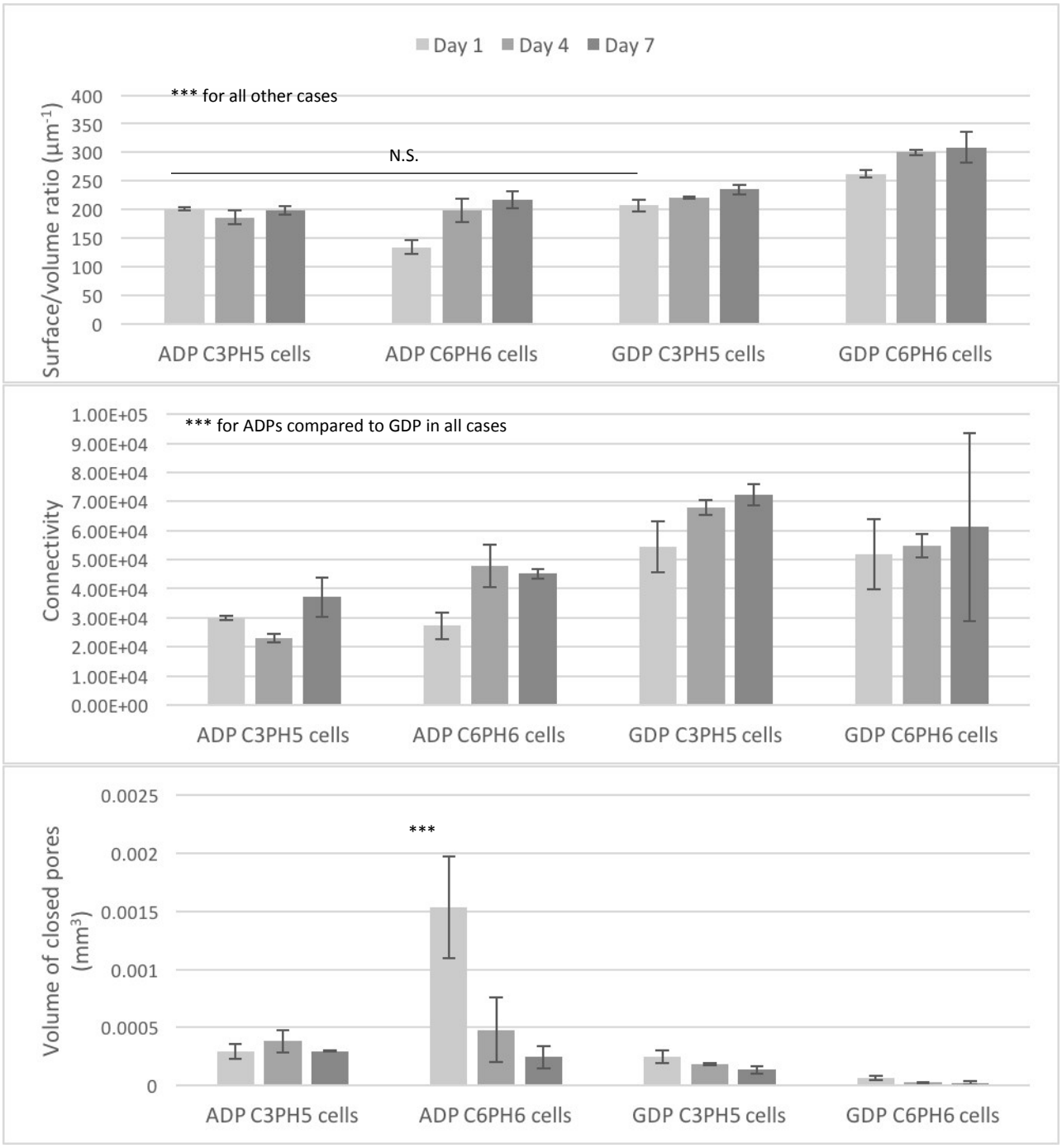

Figure S3. Results of the µCT measurements of sponges with encapsulated cells. Morphological properties. Significance was evaluated at day 1. N.S.: non-significant, ***: $p<0.001$.

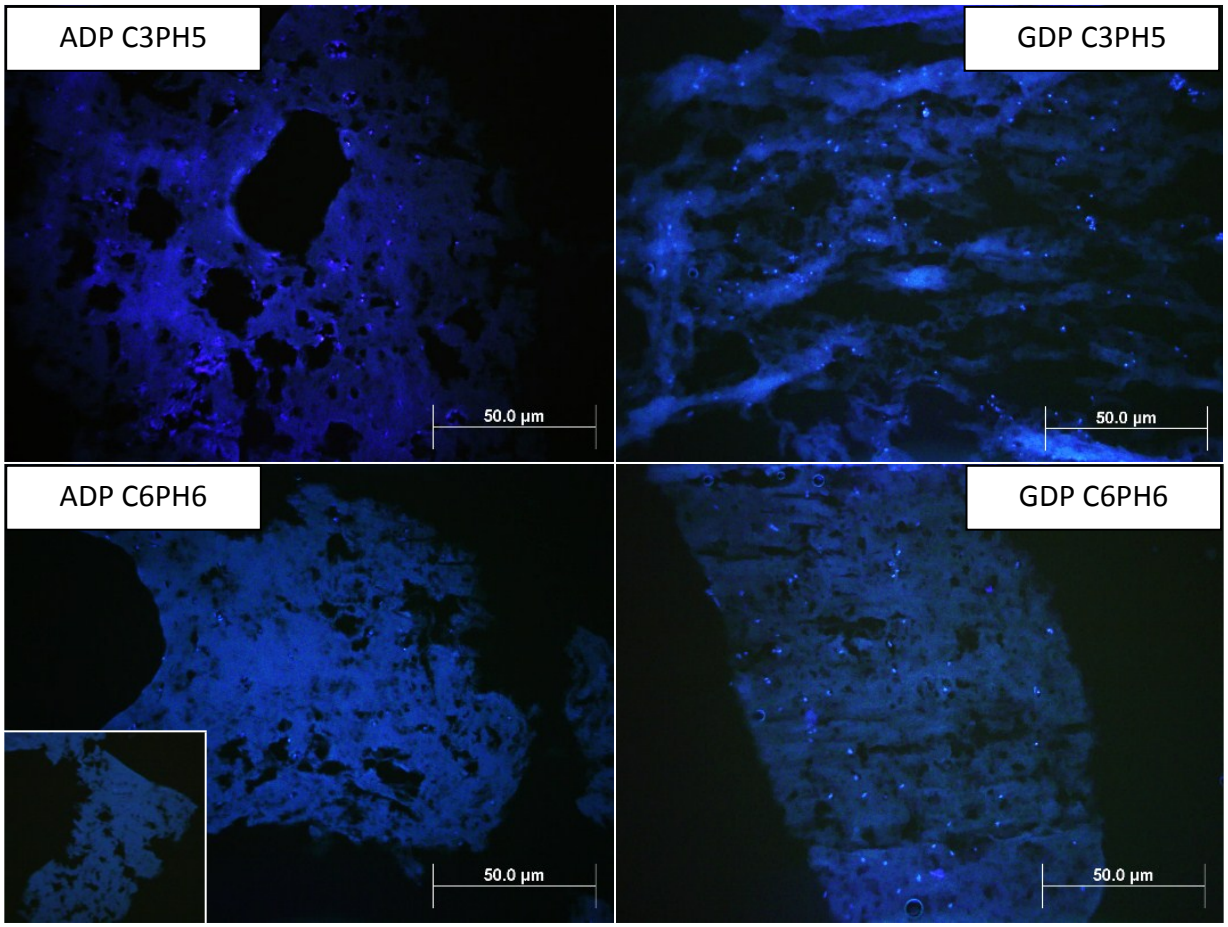

Figure S4. DAPI staining on frozen sections of the different chitosan sponges with encapsulated MC3T3 cells (day 7). Light blue dots: cell nuclei. Dark blue spots: chitosan sponge autofluorescence. Inset: chitosan sponge without encapsulated cells.