ACCSCIENCE PUBLISHING

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RESEARCH ARTICLE

3D bioprinting of the glioblastoma microenvironment for preclinical assessment of CDK4/6 inhibition

Supplementary file

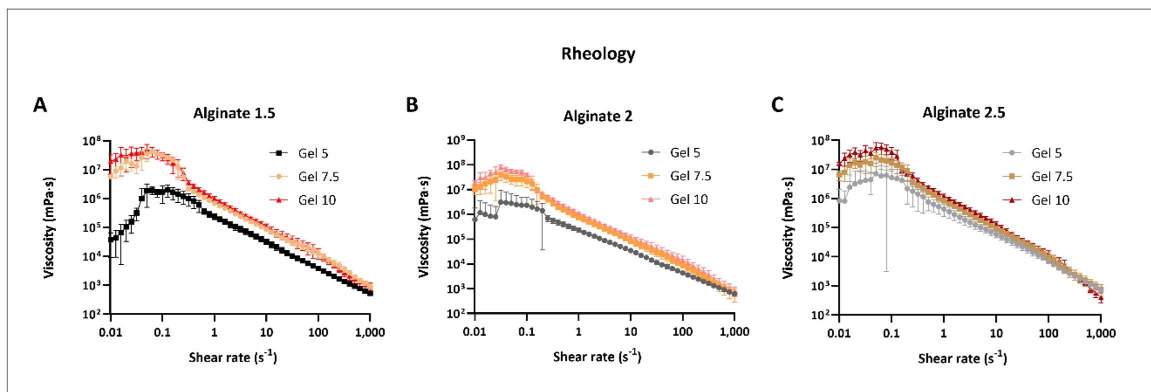

Figure S1. Rheological analysis of various alginate–gelatin precursors: (A) alginate 1.5, (B) alginate 2, and (C) alginate 2.5

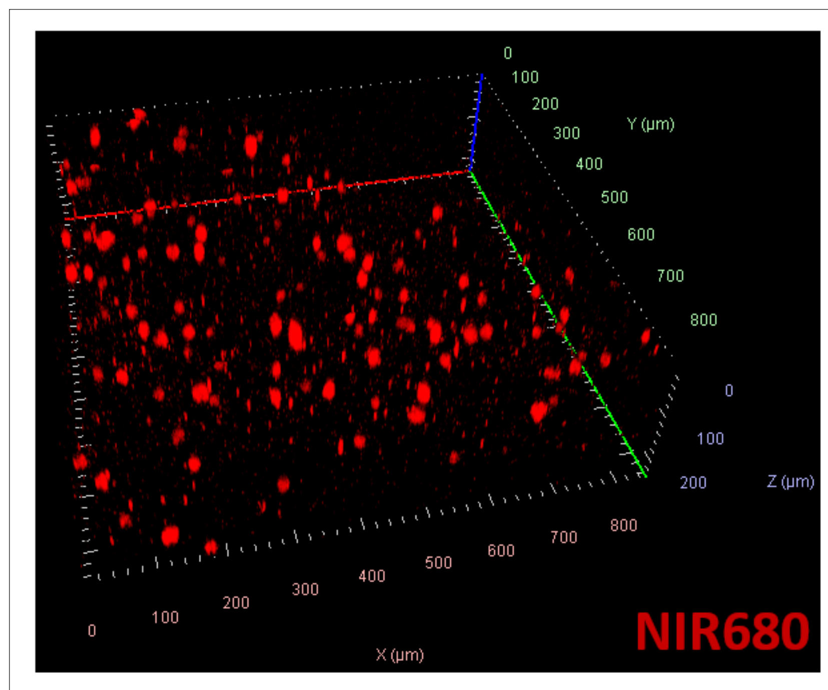

Figure S2. Uniform distribution of vital iRFP680 glioblastoma cells. Scaffolds were imaged using a confocal laser scanning microscope. Z-stack image was combined to create a spatial image of the scaffold, showing a uniform distribution of vital cells within the scaffold.

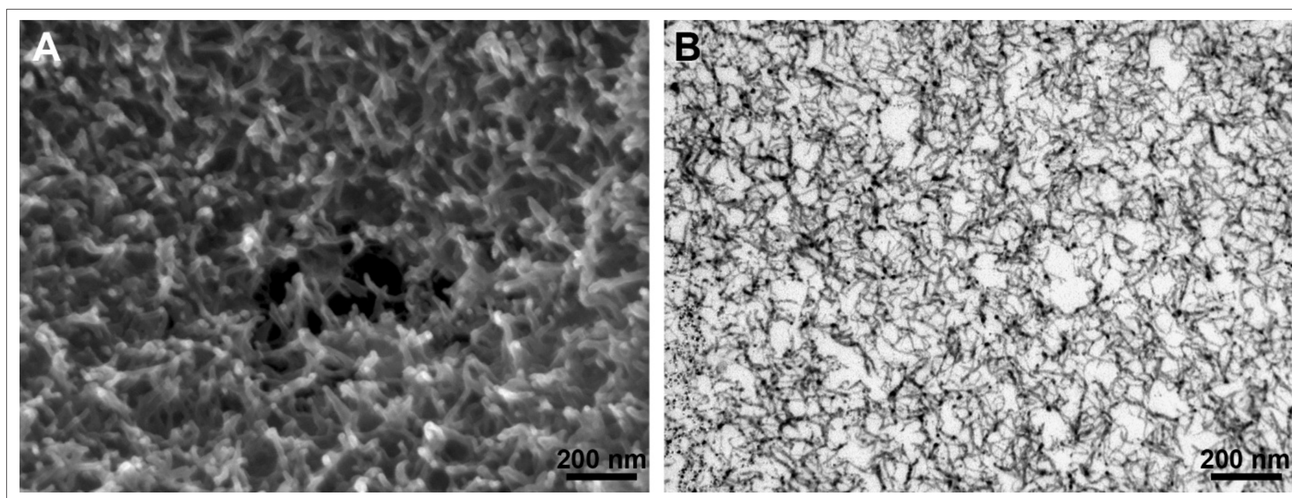

Figure S3. The porous structure of the alginate–gelatin matrix was examined using (A) scanning electron microscopy and (B) transmission electron microscopy, revealing the crosslinked network architecture (A) scale bar = 200 nm, magnification: 65.000×, (B) scale bar = 200 nm, magnification: 30.000×.

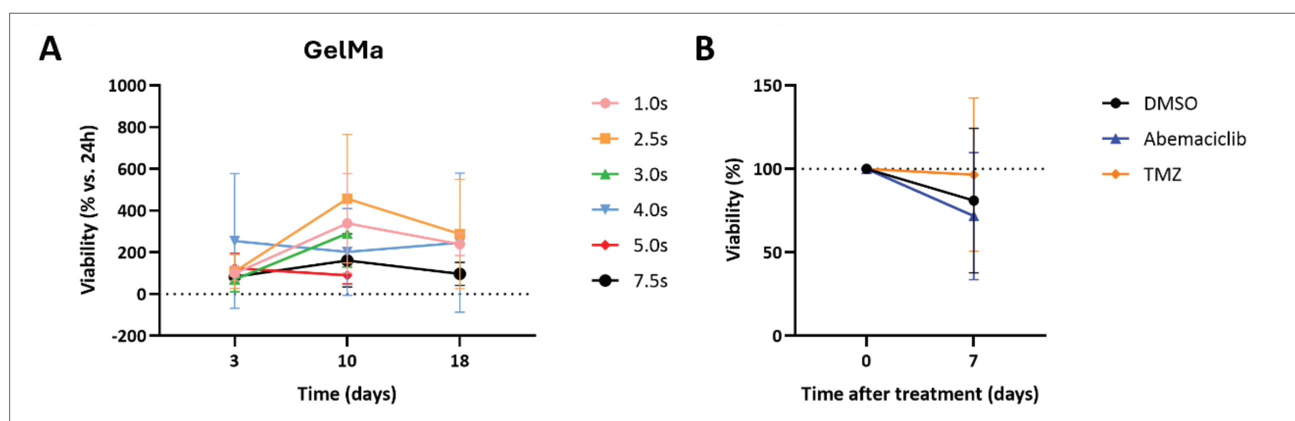

Figure S4. Glioblastoma cell viability in relation to GelMA scaffold curing time and drug treatment. (A) GelMA scaffolds were cured with UV light for different time durations. Viability changes are indicated as the relative change to 24 h after printing. (B) Glioblastoma cells printed in GelMa scaffolds were treated with TMZ (10 µM), abemaciclib (1 µM), or DMSO (control) for two cycles of 72 h.

Abbreviations: DMSO, dimethyl sulfoxide; GelMa, gelatin methacryloyl; TMZ, temozolomide.