Supporting information for

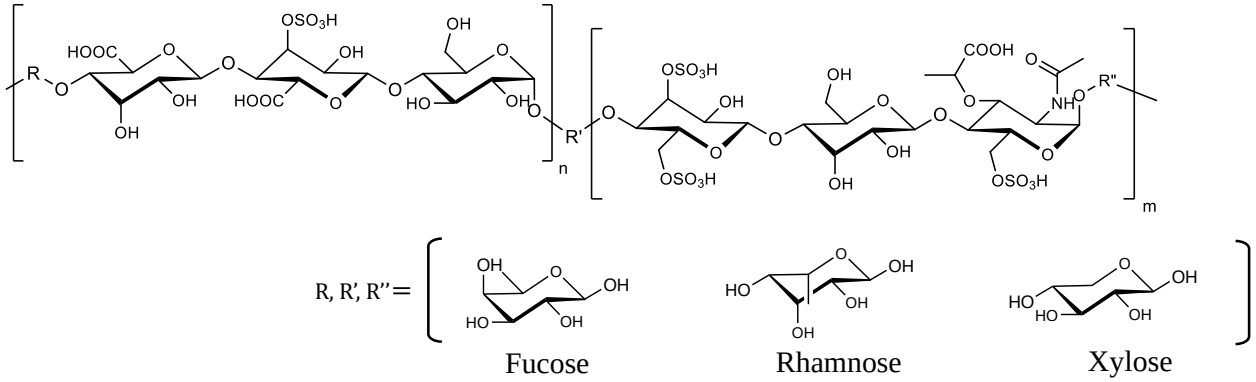
Surface-selective control of cell-orientation on cyanobacterial scaffolds from liquid crystalline gels

*Saranyoo Sornkamnerd, Maiko K. Okajima, Kazuaki Matsumura and Tatsuo Kaneko**

Graduate School of Advanced Science and Technology, Japan Advanced Institute of Science and Technology (JAIST), 1-1 Asahidai, Nomi, Ishikawa 923-1292, Japan,

Tel:+81-761-51-1631, Fax:+81-761-51-1635, E-mail:kaneko@jaist.ac.jp

Supplementary Information.



FigureS 1: Chemical structure of sacran, a supergiant liquid crystalline polysaccharide.

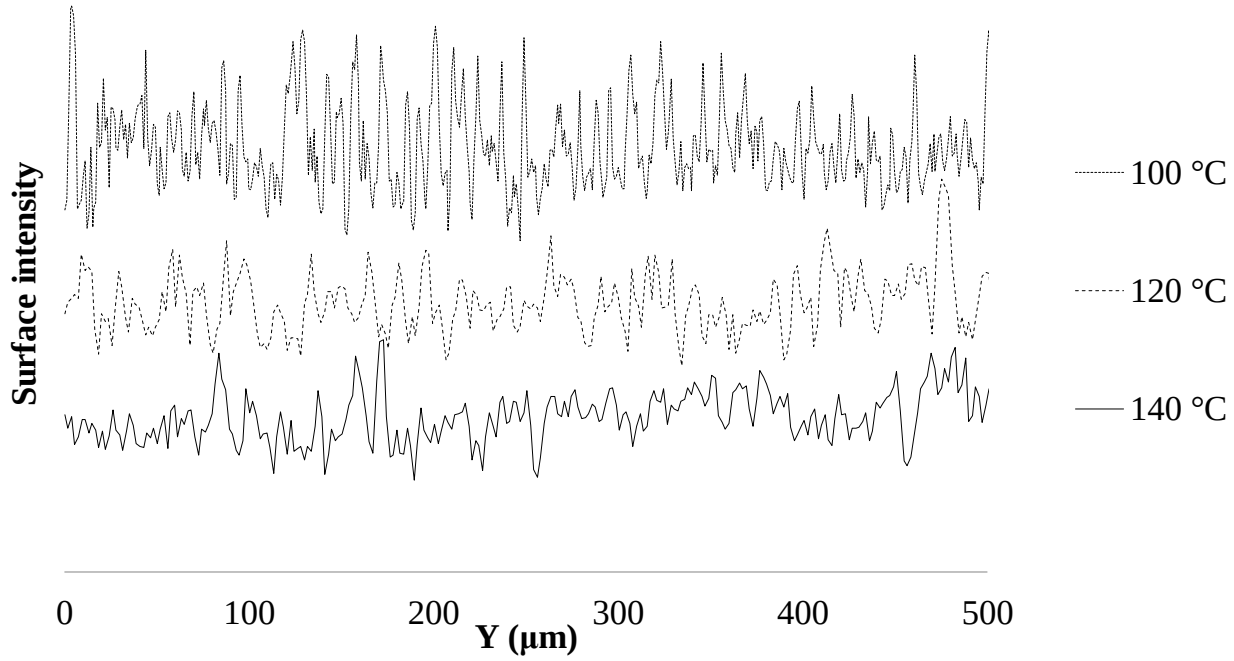


Figure S2. Height profile across x-y surface of scaffolds, analyzed SEM images using ImageJ.

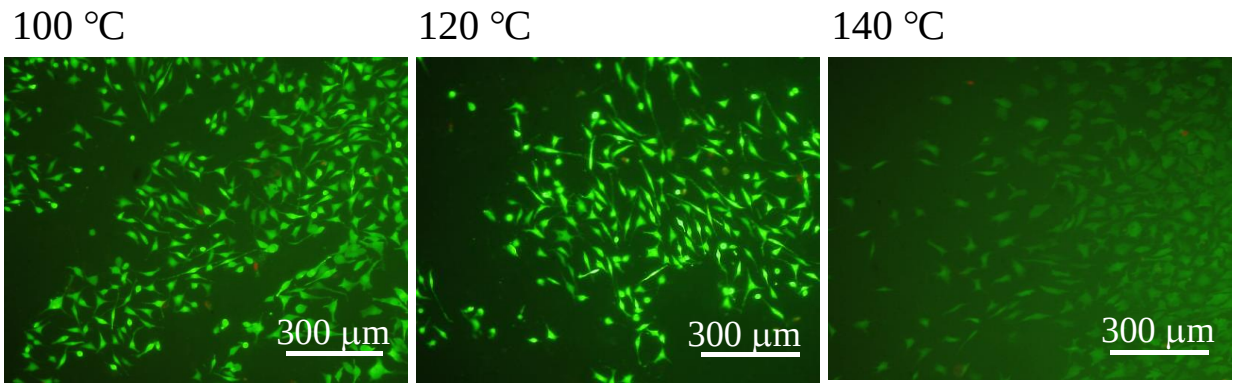


Figure S3. Resulting images of live/dead staining of fibroblast L929 after 3 days incubation on LCG scaffolds of sacran which were prepared by freeze-drying of hydrogels from the films annealed at 100, 120 and 140 ºC. Live cells are green (calcein AM) while dead cells are red (edthidium homodimer). Scale bars: 300 mm.

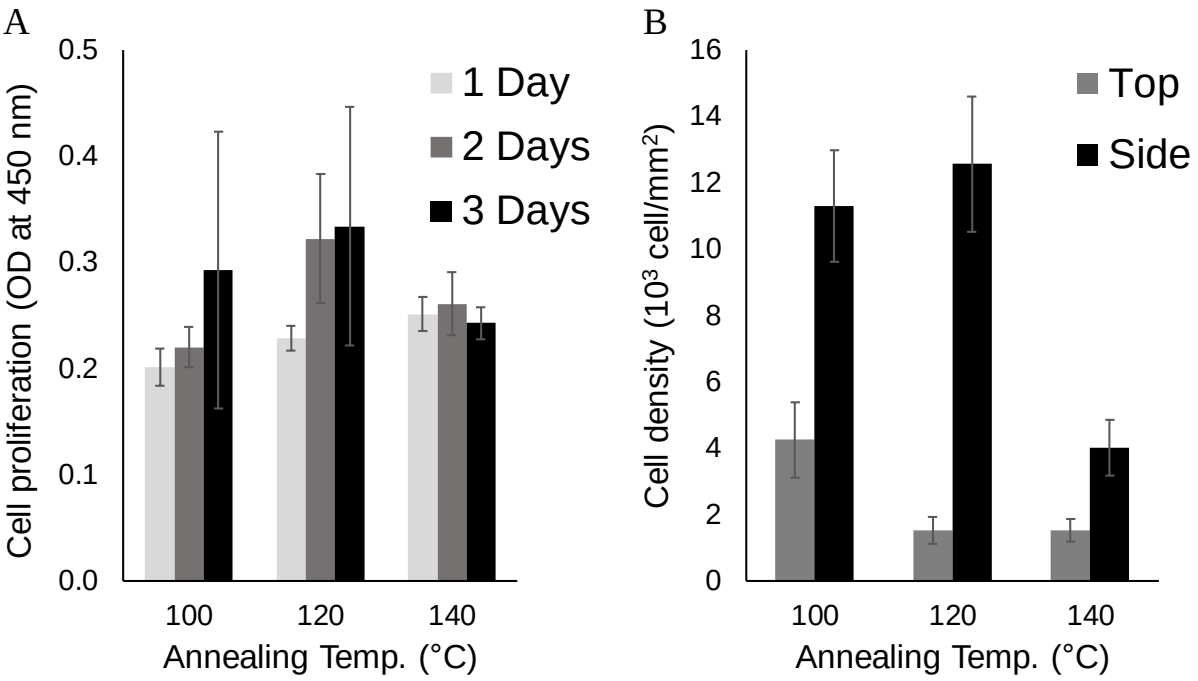


Figure S4. Proliferation data of fibroblast L929 cells on LCG scaffolds of sacran which were prepared by freeze-drying of hydrogels from the films annealed at 100, 120 and 140 ºC. (A) Total number of cells proliferated on scaffolds after 1, 2 and 3 days of incubation. (B) Cell densities on top and side faces of scaffolds after 3 days incubation. Values are averaged data (n= 5) and error bars refer to standard deviation.