

Supplementary Data to the manuscript:

Silk based scaffolds with immunomodulatory capacity: anti-inflammatory effects of nicotinic acid

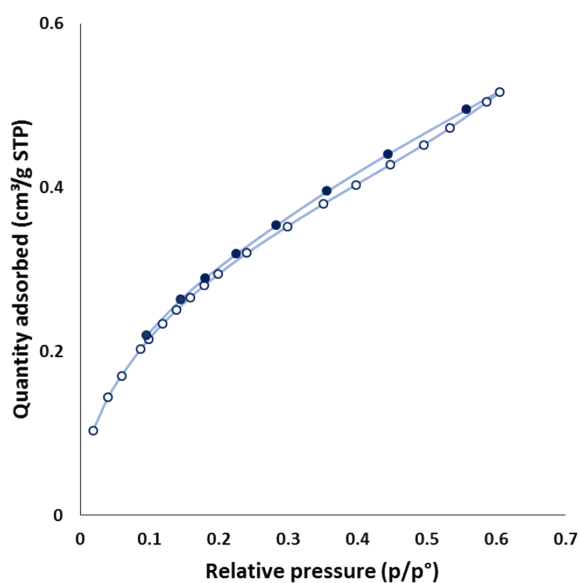
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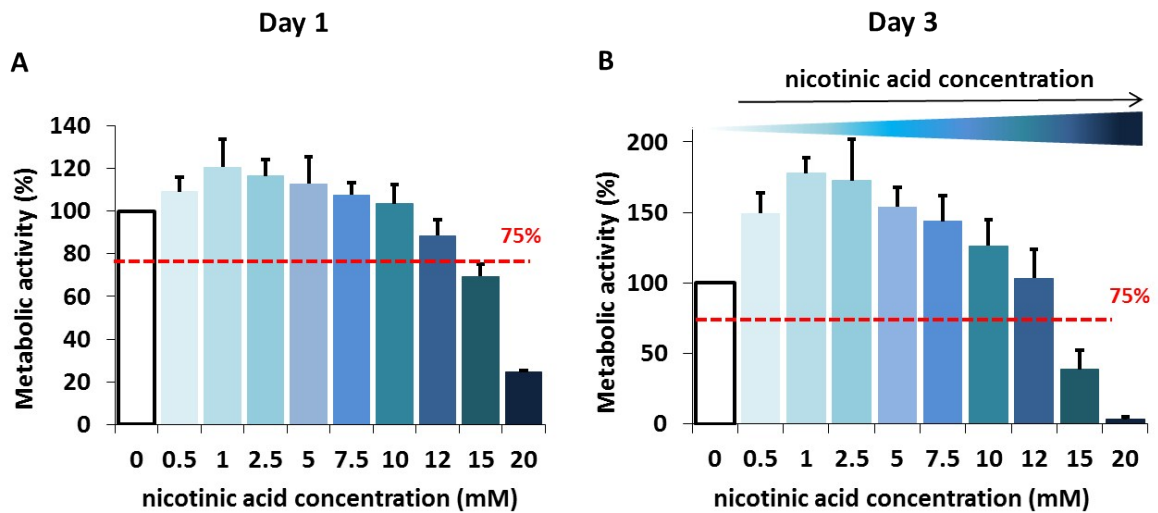
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³ Translational Cell therapy Research (TCR), Department of CLINTEC, Karolinska Institutet, Stockholm, Sweden.

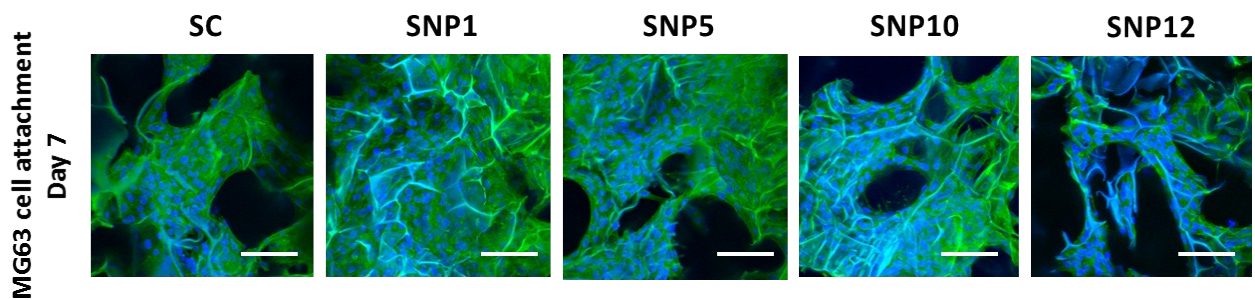
⁴ Empa, Swiss Federal Laboratories for Materials Science and Technology, Laboratory for Building Energy Materials and Components, Dübendorf, Switzerland.



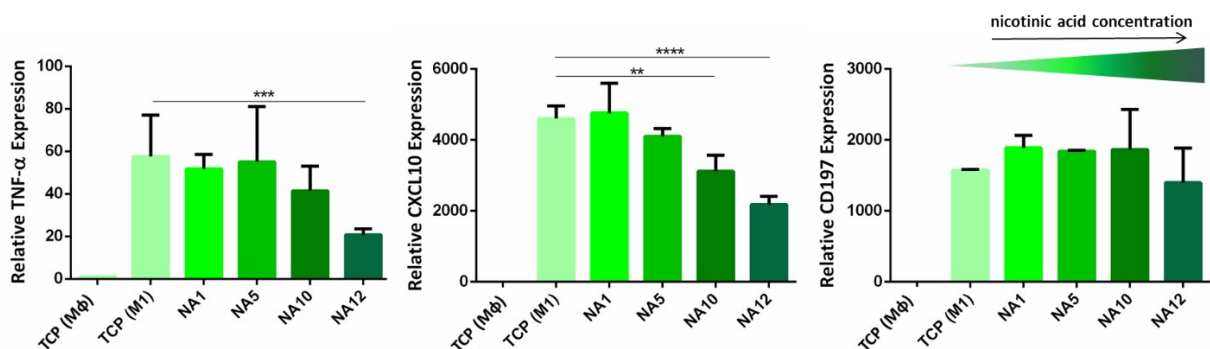
Supplementary Fig. S1. Krypton gas adsorption–desorption isotherm of cross-linked silk scaffold (three times measurement per sample).



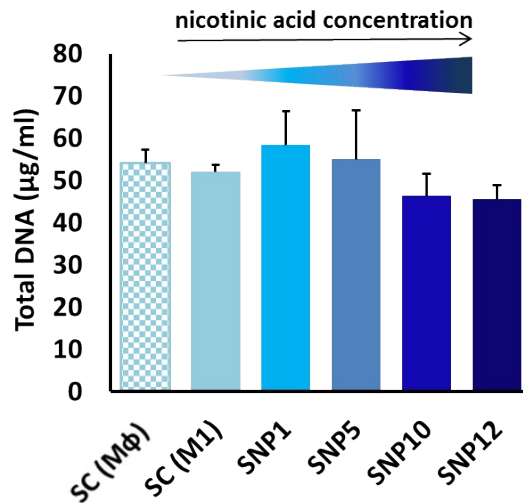
Supplementary Fig. S2. Metabolic activity (%) of MG63 cells in medium supplemented with different concentrations of nicotinic acid was measured using a PrestoBlue assay. (A) After 1 day of seeding. (B) After 3 days of seeding (\pm SD, n=3).



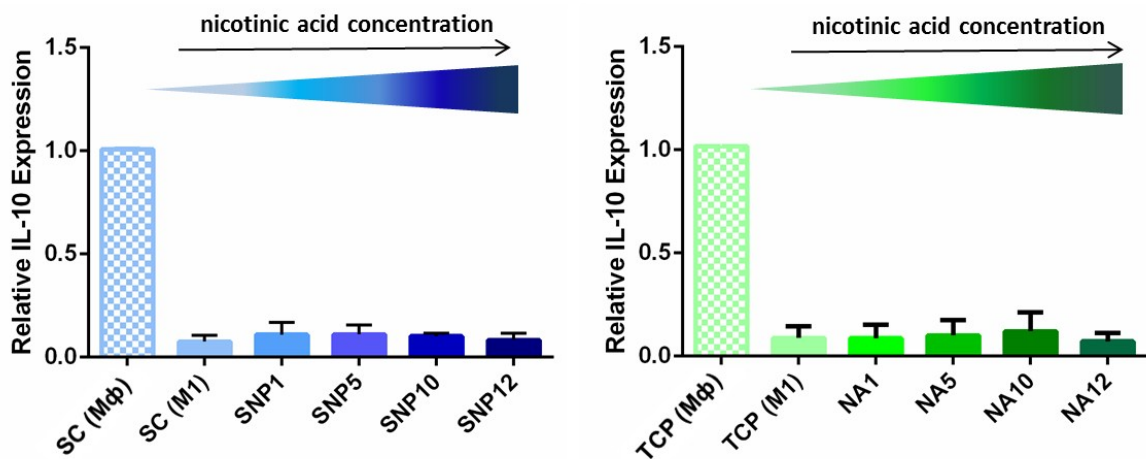
Supplementary Fig. S3. Confocal images of MG63 cells seeded on the scaffolds after 7 days of culture stained for actin filaments (green) and cell nuclei (blue). Scale bars = 100 μ m.



Supplementary Fig. S4. Relative gene expression of pro-inflammatory markers TNF- α , CXCL10 and CD197 in response to medium supplemented with different concentrations of nicotinic acid. Expression levels \pm SD were normalized to M ϕ macrophages seeded in drug-free medium (TCP (M ϕ)). RPL37a was used as a housekeeping gene. n=3 (****p< 0.0001, ***p< 0.001, **p< 0.01).



Supplementary Fig. S5. Total DNA content after 1 day of seeding M1-like macrophages on the scaffolds was measured using a Hoechst assay. (\pm SD, n = 3)



Supplementary Fig. S6. Relative gene expression of anti-inflammatory marker IL-10 in response to different concentrations of nicotinic acid in the scaffolds (SNP) and in the medium (NA). Expression levels \pm SD were normalized to Mφ macrophages. RPL37a was used as a housekeeping gene (n=3).