

Supporting information

Confined sandwich-like microenvironments tune myogenic differentiation

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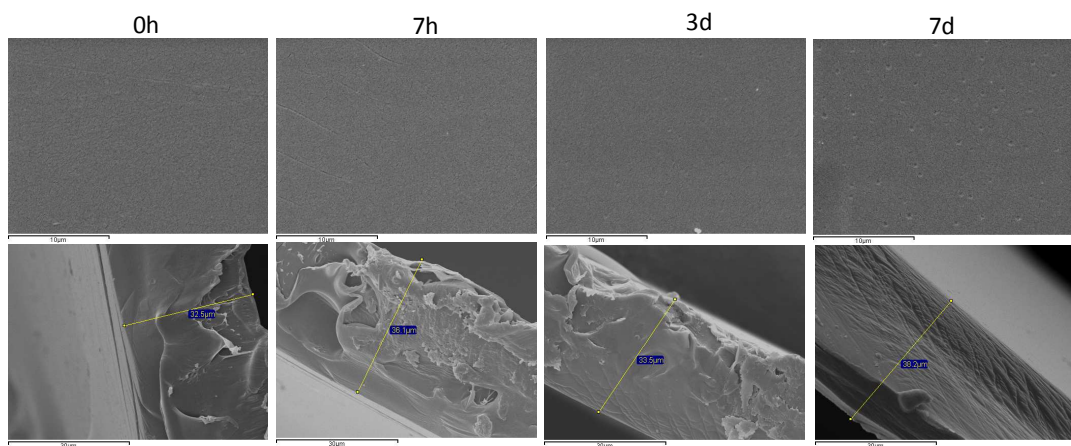
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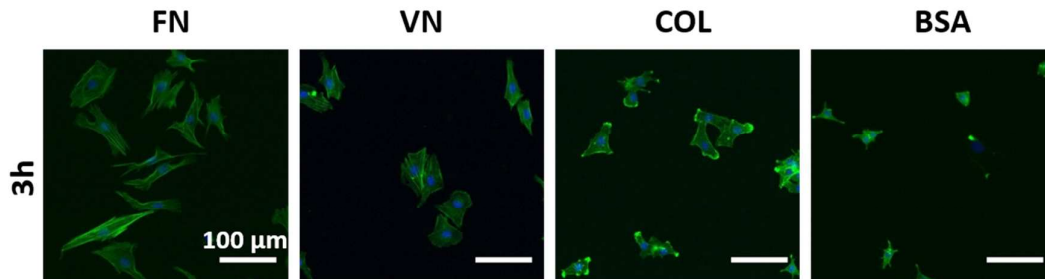
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Supplementary table 1. Primer sequences used for the quantitative real time PCR.

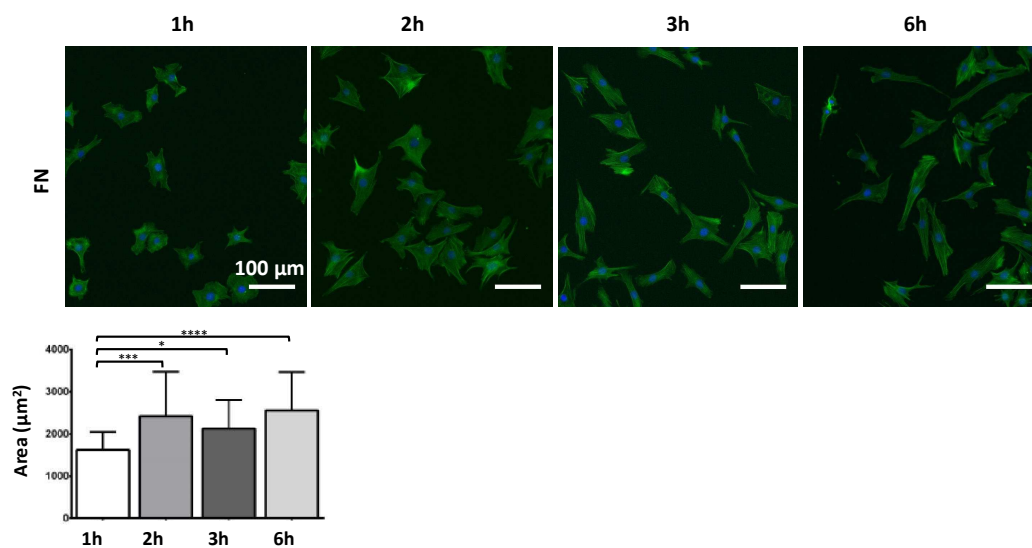
Gene	Pair	Sequence
ALCAM (self-renewal)	Forward	5'-ACG ATG AGG CAG CAG AGA TAA GT-3'
	Reverse	5'-CAG CAA GGA GGA GAC CAA CAA C-3'
CD63 (self-renewal)	Forward	5'-GCT GTG GGG CTG CTA ACT AC-3'
	Reverse	5'-ATC CCA CAG CCC ACA GTA AC-3'
PPAR- γ (adipogenic)	Forward	5'-TGT GAA GCC CAT TGA AGA CA-3'
	Reverse	5'-CTG CAG TAG CTG CAC GTG TT-3'
GLUT-4 (adipogenic)	Forward	5'-ATG TTG CGG AGG CTA TGGG-3'
	Reverse	5'-AAA GAG AGG GTG TCC GGT GG-3'
MyoD (myogenic)	Forward	5'-CAC TAC AGC GGC GAC TCC-3'
	Reverse	5'-TAG GCG CCT TCG TAG CAG-3'
GATA-4 (myogenic)	Forward	5'-GGA AGC CCA AGA ACC TGA AT-3'
	Reverse	5'-GTT GCT GGA GTT GCT GGA A-3'
OPN (osteogenic)	Forward	5'-AGC TGG ATG ACC AGA GTG CT- 3'
	Reverse	5'-TGA AAT TCA TGG CTG TGG AA -3'
OCN (osteogenic)	Forward	5'-CAG CGA GGT AGT GAA GAG ACC-3'
	Reverse	5'-TCT GGA GTT TAT TTG GGA GCA G-3'
SOX-9 (chondrogenic)	Forward	5'-AGA CAG CCC CCT ATC GAC TT-3'
	Reverse	5'-CGG CAG GTA CTG GTC AAA CT-3'
Collagen type II (chondrogenic)	Forward	5'-GTG AAC CTG GTG TCT CTG GTC-3'
	Reverse	5'-TTT CCA GGT TTT CCA GCT TC-3'
GAPDH (house-keeping)	Forward	5'-ACC CAG AAG ACT GTG GAT GG-3'
	Reverse	5'-TTC TAG ACG GCA GGT CAG GT-3'



Supplementary figure S1. Surface and cross-section of PLLA solvent casted films at different time points as observed by SEM. No qualitative changes are observed for up to 3d. Day 7 shows a higher number of small holes on the surface of the sample.



Supplementary figure S2. C2C12 cell adhesion and spreading on different protein coatings. C2C12 cells were seeded on PLLA spin coating samples coated with FN, VN, Col I, and BSA. Actin cytoskeleton was stained with Phalloidin (green) and nuclei with DAPI (blue).



Supplementary figure S3. C2C12 spreading on FN after different hours of culture. Cells are stained for actin cytoskeleton (green) and nucleus (blue); cell area is quantified using > 400 cells (n=3).