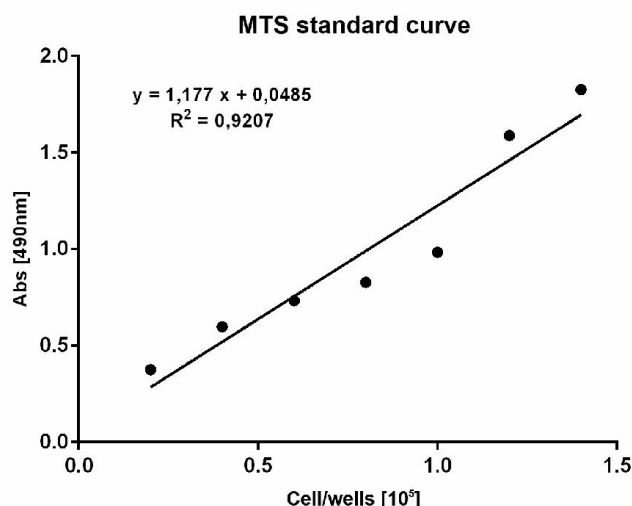


1 **SUPPLEMENTARY MATERIALS (Manuscript No 1201927).**

2
3 MTS standard curve.

4 Effect of cell number on absorbance at 490 nm. Various numbers of ASCs were
5 cultured in a final volume of 200 µl/well by incubating at 37°C. MTS reagent was added
6 and absorbance at 490nm was recorded using spectrophotometer (Multiscan Go,
7 ThermoScientific, Vantaa, Finland) plate reader. Each point represents a mean of 3
8 replicates. Assay was performed according to the kit protocol.



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11 TABLE 1: Characterization of donors and number of SVF (n=17).

Donor (female)	Age [years]	Volume of lipoaspirate [ml]	Viability of SVF [%]	Total cell number (SVF) [x10 ⁶]
1	40	200	84	83.6
2	52	184	90	35.8
3	59	180	92	103.0
4	43	200	80	97.0
5	46	160	92	101.0
6	47	160	98	53.0
7	52	180	91	152.0
8	51	180	85	55.80
9	41	180	92	30.0
10	43	110	80	30.40
11	47	105	80	66.0
12	55	120	77	27.0
13	41	200	80	35.0
14	56	210	80	36.0
15	50	90	88	28.0
16	55	160	88	66.0
17	57	160	88	20.0

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16 TABLE 2: Growth kinetics of human ASCs. Summary table of average number of
 17 human ASCs. M \pm SD. (n=3).

Passage	Average number of cells [10 ⁶]. M \pm SD	Passage	Average number of cells [10 ⁶]. M \pm SD
0	0.53 \pm 0.152	12	1.01 \pm 0.175
1	0.97 \pm 0.075	13	1.01 \pm 0.125
2	1.53 \pm 0.212	14	0.62 \pm 0.037
3	2.53 \pm 0.351	15	1.50 \pm 0.173
4	1.83 \pm 0.321	16	1.46 \pm 0.152
5	3.09 \pm 0.062	17	0.68 \pm 0.076
6	1.31 \pm 0.331	18	0.80 \pm 0.173
7	0.99 \pm 0.228	19	0.41 \pm 0.036
8	0.82 \pm 0.175	20	0.28 \pm 0.026
9	1.21 \pm 0.314	21	0.26 \pm 0.028
10	1.31 \pm 0.220	22	0.13 \pm 0.026
11	1.63 \pm 0.413	23	0.12 \pm 0.037

18
 19 TABLE 3: Seeding efficiency of human ASCs within PCL and PCL+5%TCP scaffolds.
 20 Summary table of absorbance values measured by the MTS test for seeding hASC into
 21 PCL and PCL+5%TCP. M \pm SD, (n=3). hASC- human adipose stem cells, PCL-
 22 polycaprolactone, PCL+5% TCP polycaprolactone covered 5% tricalcium phosphate.

		hASC PCL				hASC PCL +5% TCP			
		1	3	7	21	1	3	7	21
50 μ l	Time [day]								
	Abs [490nm]	0.57	0.65	0.61	0.71	0.46	0.56	0.60	0.65
		0.58	0.75	0.63	0.64	0.48	0.59	0.36	0.44
		0.59	0.76	0.68	0.69	0.38	0.46	0.53	0.67
	M	0.58	0.72	0.64	0.68	0.44	0.53	0.49	0.58
SD	0.05	0.04	0.12	0.12	0.05	0.06	0.12	0.12	
		1	3	7	21	1	3	7	21
35 μ l	Time [day]								
	Abs [490nm]	0.47	0.80	0.83	0.97	0.82	0.84	0.92	1.25
		0.48	0.65	0.75	0.87	0.61	0.89	0.89	1.22
		0.37	0.77	0.89	0.78	0.60	0.83	0.79	1.00
	M	0.44	0.74	0.82	0.87	0.67	0.85	0.87	1.15
SD	0.06	0.08	0.06	0.09	0.12	0.03	0.06	0.13	

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 24 TABLE 4: Summary table of absorbance values measured by the MTS test for seeding
 25 human ASC into PCL and PCL+5%TCP. M \pm SD, (n=6).

Seeding methods	the basic static cell seeding into PCL [Abs=490nm]		the basic static cell seeding into PCL+5%TCP [Abs=490nm]		the saturation of cell suspension with incubation into PCL [Abs=490nm]		the saturation of cell suspension with incubation into PCL+5%TCP [Abs=490nm]	
	1	7	1	7	1	7	1	7
Time [day]								
	0.565	0.797	0.259	0.631	0.210	1.254	0.818	1.431
	0.623	0.793	0.384	0.641	0.198	1.428	1.048	1.774
	0.544	0.7320	0.352	0.594	0.287	1.012	0.954	1.333
	0.495	0.759	0.298	0.614	0.394	1.125	1.067	1.568
	0.619	0.759	0.391	0.659	0.378	0.987	0.924	2.116

	0.583	0.721	0.341	0.710	0.417	1.102	1.323	1.581
M	0.571	0.760	0.337	0.641	0.314	1.151	1.023	1.633
SD	0.048	0.031	0.050	0.040	0.096	0.165	0.172	0.279

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27 TABLE 5: Summary table of absorbance values measured by the MTS test for seeding
 28 human ASC into PCL. and average number of cells. measured by the standard curve of
 29 MTS. M \pm SD, (n=3).

Time [day]	3	7	21
Initial density	Abs MTS [490nm]		
0.5 x10 ⁶	0.926 \pm 0.108	0.861 \pm 0.139	1.586 \pm 0.081
0.9 x10 ⁶	1.135 \pm 0.084	1.462 \pm 0.095	1.060 \pm 0.168
1.5 x10 ⁶	1.159 \pm 0.104	1.06 \pm 0.109	1.792 \pm 0.173
Initial density	Average number of cells [x10⁵] after calculate of the standard curve MTS [x10⁵]		
0.5 x10 ⁶	0.746 \pm 0.04	0.860 \pm 0.077	1.580 \pm 0.028
0.9 x10 ⁶	0.923 \pm 0.030	1.731 \pm 0.040	1.991 \pm 0.101
1.5 x10 ⁶	1.159 \pm 0.047	1.061 \pm 0.051	1.187 \pm 0.105

30

31 TABLE 6: Summary table of absorbance values measured by the MTS test for seeding
 32 human ASC into PCL+5% TCP . and average number of cells. measured by the
 33 standard curve of MTS (M \pm SD. (n=3).

Time [day]	3	7	21
Initial density	Abs MTS [490nm]		
0.5 x10 ⁶	0.965 \pm 0.061	0.751 \pm 0.113	1.715 \pm 0.060
0.9 x10 ⁶	1.155 \pm 0.093	2.067 \pm 0.229	2.381 \pm 0.060
1.5 x10 ⁶	1.567 \pm 0.100	1.426 \pm 0.120	1.906 \pm 0.328
Initial denisty	Average number of cells [x10⁵] after calculate of the standard curve MTS [x10⁵]		
0.5 x10 ⁶	0.779 \pm 0.011	0.597 \pm 0.055	1.480 \pm 0.223
0.9 x10 ⁶	0.941 \pm 0.038	1.715 \pm 0.153	2.049 \pm 0.109
1.5 x10 ⁶	1.291 \pm 0.044	1.171 \pm 0.061	1.579 \pm 0.238

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35 TABLE 7: Summary table of absorbance values measured by the ALP test for seeding
 36 human ASC into PCL+5% TCP. (M \pm SD. (n=5).

Type of scaffold	PCL	PCL control	PCL	PCL control	PCL+5%TCP	PCL+5%TCP control	PCL+5%TCP	PCL+5%TCP control
Time [day]	7		14		7		14	
	1.30	1.20	1.40	1.23	1.35	1.23	1.87	1.53
	1.45	1.22	1.38	1.10	1.34	1.32	1.90	1.43
	1.35	1.42	1.47	1.13	1.40	1.30	1.97	1.40
	1.11	1.2	1.40	1.0	1.30	1.20	1.95	1.38
	1.30	1.2	1.41	1.0	1.16	1.21	1.93	1.43
M	1.30	1.22	1.41	1.1	1.31	1.25	1.92	1.43
SD	0.12	0.11	0.03	0.1	0.09	0.05	0.08	0.06

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