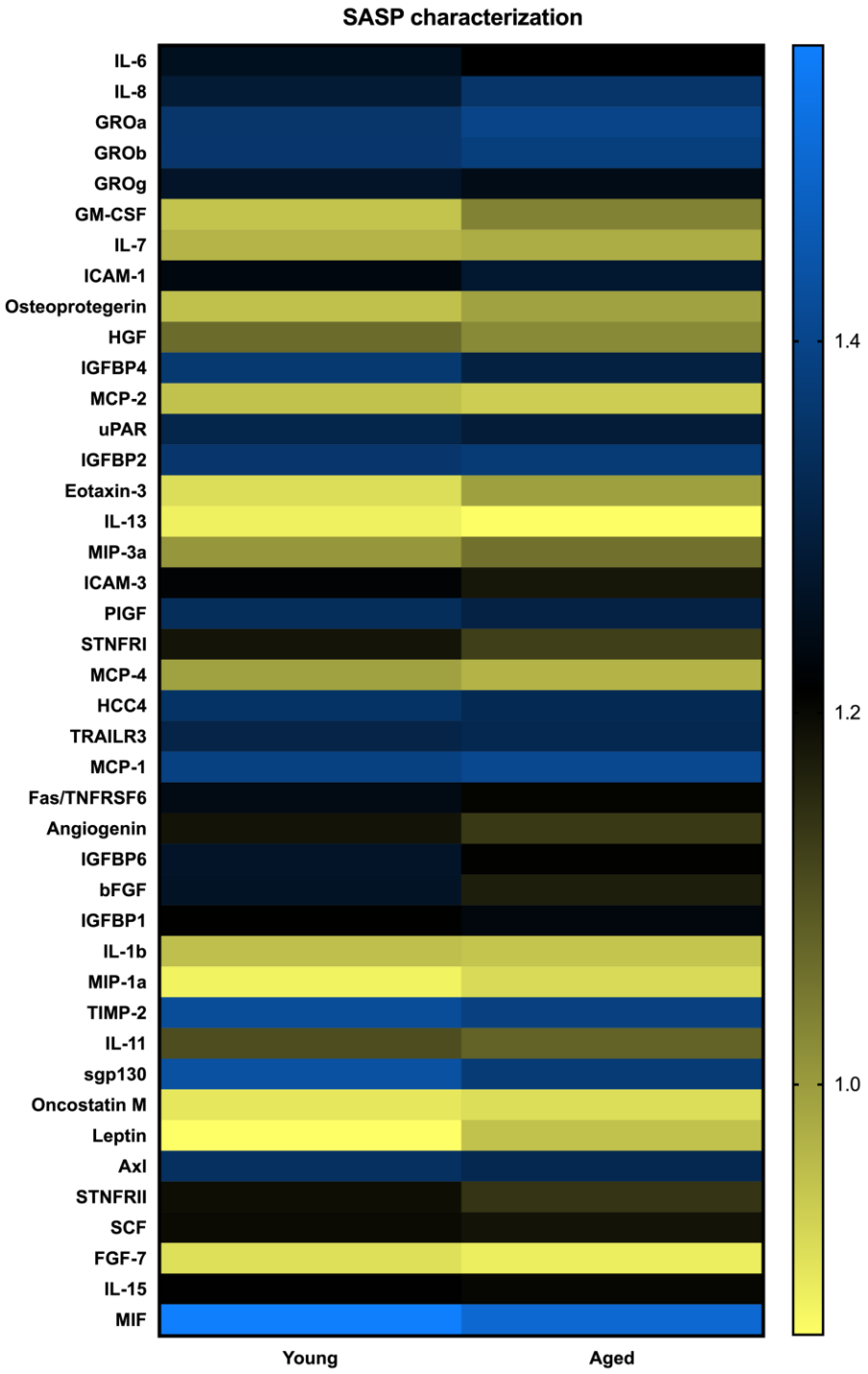
Supplementary Material

Evaluating endothelialization of different vascular graft materials using senescent endothelial cells at different inflammatory stages

Figure S1 SASP phenotype characterization



Characterization of the SASP phenotype via gene expression analyses revealed no differences between young and aged cells.

Table S1 List of primer sequences – SASP phenotype

	Gene	Primer sequence forward	Primer sequence reverse
1	IL-6	CCAGGAGAAGATTCCAAAGATGTA	CGTCGAGGATGTACCGAATTT
2	IL-8	TTTGCCAAGGAGTGCTAAAGA	CCACTCTCAATCACTCTCAGTTC
3	P16INK4A	TGGACCTGGCTGAGGAG	ATCTATGCGGGCATGGTTAC
4	GROa	CGAAGTCATAGCCACACTCAA	GATTTGTCACTGTTCAGCATCTT
5	GROb	TCACCTCAAGAACATCCAAAGT	CAAGCTTTCTGCCCATTCTTG
6	GROg	TCACCTCAAGAACATCCAAAGT	AGACAAGCTTTCTTCCCATTCT
7	GM-CSF	GTCTCCTGAACCTGAGTAGAGA	GCTCCTGGAGGTCAAACATT
8	IL-7	GTTTCAGAAGGCACAACAATACT	CTTTGTTGGTTGGGCTTCAC
9	Osteoprotegerin	GTCTTTGGTCTCCTGCTAACTC	CCTCACACAGGGTAACATCTATTC
10	HGF	TGGGAACCAGATGCAAGTAAG	AATGAGTGGATTTCCCGTGTAG
11	IGFBP-4	TCTGACAAGGACGAGGGT	GTGCTCCGGTCTCGAATTT
12	MCP-2	GGAGAGCTACACAAGAATCACC	TGGAATCCCTGACCCATCT
13	uPAR	CTTGTGGGAAGAAGGAGAAGAG	GATCTTCAAGCCAGTCCGATAG
14	IGFBP-2	CCTCTGGAGCACCTCTACT	CAGAGACATCTTGCACTGTTTG
15	Eotaxin-3	AGACCTGCTGCTTCCAATAC	GGTACAGACTTTCTTGCCTCTT
16	IL-13	AACATCACCCAGAACCAGAAG	CTGACACGTTGATCAGGGATT
17	MIP-3a	TTGATGTCAGTGCTGCTACTC	CCGTGTGAAGCCCACAATA
18	ICAM-3	CAGCTCACGAGGCAAATACA	CGTACATTAAGGCCAGTACGATAG
19	PIGF	GGCTTGGAGCACTTCCTATT	TCCAGTATATCCAGAGTGGTGA
20	sTNFRI	GAACTGGACGGTTGTGAAGA	CACAGAGGCAGAAGCCATTA
21	MCP-4	CCAAACTGGGCAAGGAGAT	GTCTTCAGGGTGTGAGCTTT
22	HCC-4	CAGCACCACCAGCAGTAATA	GAGGCAGTCCTCGGATATAGA
23	TRAIL-R3	CCAGCTGCTGAAGAGACAAT	ATGGTGCATGAGAGGTAATGAG
24	MCP-1	TCATAGCAGCCACCTTCATTC	CTCTGCACTGAGATCTTCCTATTG
25	TNFRSF6	GACCTGTGTGCAGCATTTAAC	CGATCTTGGTGTCTGAGACTTT
26	Angiogenin	GGATAACTCCAGGTACACACAC	CCGTCTCCTCATGATGCTTT
27	IGFBP-6	GCAGAGACCAACAGAGGAAT	GCACTGAGTCCAGATGTCTAC

28	bFGF	GAGGCTACAAGGTCCGTTATG	GATGCTGCCGTACTCATTCT
29	IGFBP-1	CTCTCCATGTCACCAACATCAA	GTGCCTTGGCTAAACTCTCTAC
30	IL-1b	GGTGTTCTCCATGTCCTTTGTA	GCTGTAGAGTGGGCTTATCATC
31	MIP-1a	ACCAGTTCTCTGCATCACTTG	GCTGCTCGTCTCAAAGTAGTC
32	TIMP-2	AGGGCCTGAGAAGGATATAGAG	GGCCTTTCCTGCAATGAGATA
33	IL-11	CAAGCAGCCGACTATGAGAA	TTCCTGTAGGAGGTGAGGTAG
34	Sgp130	AGGTACTGAGGGACAAGTAGAA	CCGTACAGTCTGTGGTAAGTAAC
35	Oncostatin-M	GGTCCTTGCACTCCTGTTT	GCATGAGATCTGTCTGCTTCT
36	Leptin	GTCAGTCTCCTCCAAACAGAAA	GTCTGGTCCATCTTGGATAAGG
37	Axl	GTCCTCATCTTGGCTCTCTTC	GACTACCAGTTCACCTCTTTCC
38	sTNFRII	TGCATCGTGAACGTCTGTAG	GGAATCTGTGTCTCCCATTGT
39	SCF	CAGAACCCAGGCTCTTTACTC	CCTTCCCTTTCTCAGGACTTAAT
40	FGF-7	AGTGGTACCTGAGGATCGATAA	CCCTTTGATTGCCACAATTCC
41	IL-15	GAGTCCGGAGATGCAAGTATTC	CCTCCAGTTCCTCACATTCTTT
42	MIF	GAACCGCTCCTACAGCAAG	AGTTGTTCCAGCCCACATT

Table S2 List of primer sequences - Endothelial markers

	Gene	Primer sequence forward	Primer sequence reverse
1	VCAM-1	GCTCACTCTCTTGCCATTCT	CTAGGAACCTTGCAGCTTACA
2	ICAM-1	GTAGCAGCCGCAGTCATAAT	GGGCCTGTTGTAGTCTGTATTT
3	vWF	GTACAGCTTTGCGGGATACT	GCTCACTCTCTTGCCATTCT
4	CD31	CCGATGTCAAGCTAGGATCATT	GATGTGGAACTTGGGTGTAGAG
5	GAPDH	TGGGAAGCTGGTCATCAAC	GCATCACCCCATTTGATGTT

Table S3 RT-qPCR temperature program (all gene expression analyses)

Time	Temperature [°C]	Stage
2 min	50	Holding Stage
10 min	95	
15 sec	95	Cycles 40x
1 min	60	

15 sec	95	Melting curve
1 min	60	
30 sec	95	
15 sec	60	

Table S4 List of primer sequences - Measurement of relative telomere length

	Gene	Primer sequence
1	Telomere1	CGGTTTGTTTGGGTTTGGGTTTGGGTTTGGGTTTGGGTT
2	Telomere2	GGCTTGCCTTACCCTTACCCTTACCCTTACCCTTACCCT
3	hβglo1	GCTTCTGACACAACTGTGTTCACTAGC
4	hβglo2	CACCAACTTCATCCACGTTCACC

Table S5 Temperature program – Measurement of relative telomere length – Telomere Primer

Time	Temperature [°C]	Stage
3 min	95	Holding Stage
15 sec	95	Cycles 40x
1 min	56	
15 sec	95	Melting curve
1 min	56	
15 sec	95	

Table S6 Temperature program – Measurement of relative telomere length – hβglo Primer

Time	Temperature [°C]	Stage
3 min	95	Holding Stage
15 sec	95	Cycles 40x
1 min	58	
15 sec	95	Melting curve
1 min	58	
15 sec	95	