

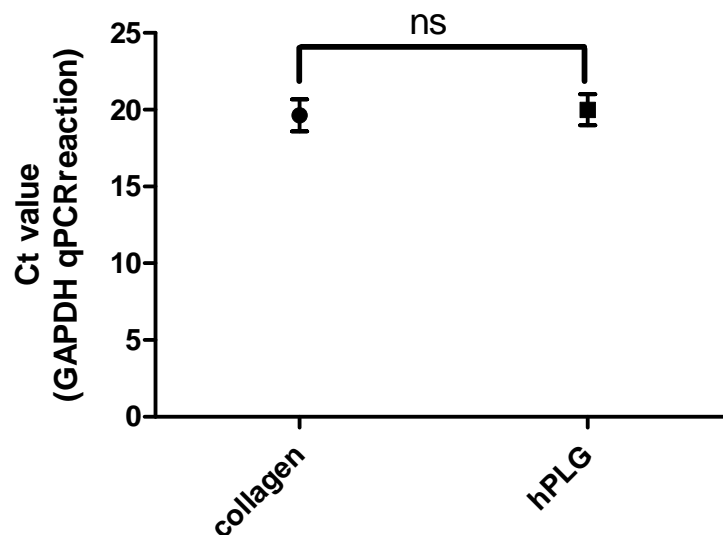
Platelet lysate gel and endothelial progenitors stimulate capillary formation *in vitro*: implications for tissue engineering.

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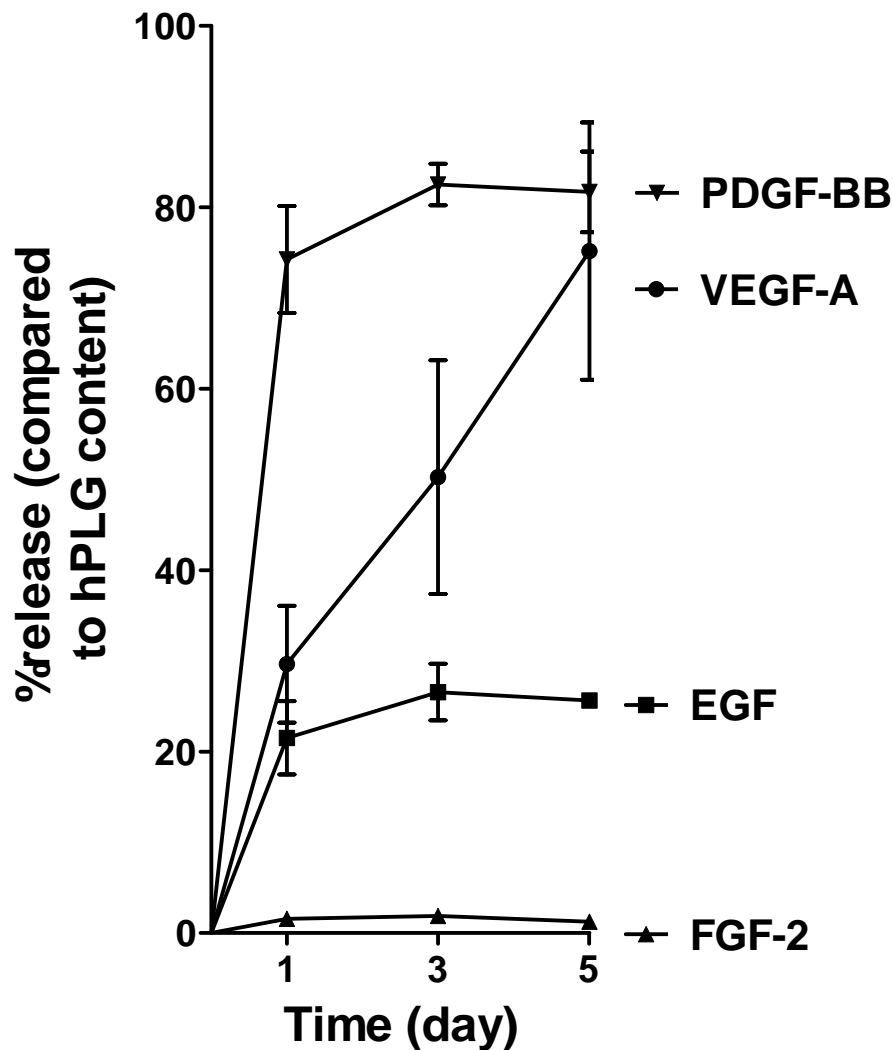
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Supplementary Figure 1: GAPDH expression in ECFCs cultured on collagen or hPLG. Total RNA was extracted from ECFCs cultured on traditional coating (rat collagen) or hPLG for 24h and expression of selected genes was quantified by RT-qPCR. The amplification of a single PCR product was confirmed by melting curve analysis. Gene-specific mRNA levels were estimated by the $2^{-\Delta\Delta C_t}$ analysis and normalized against GAPDH levels to obtain relative changes in gene expression, as previously described¹. Data show mean \pm SEM of the Ct (cycle threshold) for collagen and hPLG cultures. Ct is defined as the number of cycles required for the fluorescent signal to cross the threshold. Ct levels are inversely proportional to the amount of target nucleic acid in the sample. No statistical difference was observed (Mann-Whitney U-test, n=3).
¹Livak KJ, Schmittgen TD (2001) Analysis of relative gene expression data using real-time quantitative PCR and the $2^{-(\Delta\Delta C(T))}$ Method. *Methods* 25: 402-408.



Supplementary Figure 2: Growth factor release expressed as % of hPLG content). Growth factor by hPLG in 1, 3 and 5 days of culture conditions were determined by ELISA using the Human Growth Factor II ELISA Strip Kit (Signosis, Santa Clara, US) according to the manufacturer's instructions. hPLG was prepared as previously described in 12-well plates (1ml/well). After one wash in PBS, 1mL of medium was added immediately after polymerization. Samples of conditioned medium in the absence of cells were collected after 1, 3 or 5 days of incubation at 37 °C. Data show the release as % of the content in hPLG (shown in Figure 1C) and are presented as mean±SEM. Data are representative of three independent experiments.

Supplementary table 1. qPCR primer sequences

Target	Forward primer 5'-3'	Reverse primer 5'-3'
<i>CD31</i>	TCGGAAGGATAAAACGCGGTC	CCAAGGTGGGATCGTGAGG
<i>eNOS</i>	TGATGGCGAAGCGAGTGAAG	ACTCATCCATACACAGGACCC
<i>VE-cadherin</i>	AAGCGTGAGTCGCAAGAATG	TCTCCAGGTTTTCGCCAGTG
<i>vWF</i>	GCCCTGGTTGCCATTGTAATTC	AGCCTTGTGAAACTGAAGCAT
<i>CXCR4</i>	CCCACAATGCCAGTTAAGAAGA	ACTACACCGAGGAAATGGGCT
<i>SDF-1</i>	ATTCTCAAACTCCAAACTGTGC	ACTTTAGCTTCGGGTCAATGC
<i>Angiogenin</i>	CTGGGCGTTTTGTTGTTGGTC	GGTTTGGCATCATAGTGCTGG
<i>VEGF-A</i>	AGGGTCTCGATTGGATGGCA	AGGGCAGAATCATCACGAAGT
<i>VEGFR-2</i>	CCAGTGTCATTTCCGATCACTTT	GGCCAATAATCAGAGTGGCA
<i>FGFR-1</i>	AATGAGTACGGCAGCATCAAC	ACCTCGATGTGCTTTAGCCAC
<i>PDGFR-β</i>	AGACACGGGAGAATACTTTTGC	AGTTCCTCGGCATCATTAGGG
<i>GAPDH</i>	AGCCGCATCTTCTTTTGCCT	TGACGAACATGGGGGCATCA

Supplementary table 2. Test of normality and homoscedasticity for data presented in Figures 3B, 3D, 3F, 4A and 7D

Figure 3B										
	Collagen:	Vehicle	Ki8751	Tivozanib	Pazopanib	hPLG:	Vehicle	Ki8751	Tivozanib	Pazopanib
		1.198925	0.8602151	0.937634	1.021505		2.770318	1.222615	0.8127208	1.399293
		1.021505	0.5322581	0.6827957	1.032258		2.29682	0.9469965	1.611307	1.498233
		1.478495	0.5537634	0.8655914	0.6344086		2.840989	0.9116608	1.533569	1.194346
		1.333333	0.7526882	0.8978494	1.05914		2.325088	1.053004	0.7985865	1.477032
		0.9301075	0.688172	0.7849463	0.9408602		2.59364	1.187279	1.378092	1.420495
		1.392473	0.6182796	0.7741935	0.8591398		2.763251	0.8339223	1.289046	1.75265
	Variance =	0.04661815	0.0156945	0.00880813	0.02556846		0.05625073	0.02432128	0.12457872	0.03263204
Shapiro-Wilk test	W =	0.9417	0.9487	0.9602	0.8455		0.8527	0.9316	0.8619	0.9406
	Conclusion =	Data are normally distributed								
Bartlett's test	Chisquare =	10.9661								
	P value =	0.14								
	Conclusion =	Data have equal variance								

Figure 3D

Collagen:	Vehicle	PD98059	hPLG:	Vehicle	PD98059
	1.198925	1.107527		2.770318	1.491166
	1.021505	1.134409		2.29682	1.830389
	1.478495	1.193548		2.840989	1.992933
	1.333333	1.198925		2.325088	1.65371
	0.9301075	0.9892473		2.59364	1.844523
	1.392473	0.9408602		2.763251	1.667845

Variance: 0.04661815 0.01143196 0.05625073 0.031473346

Shapiro-Wilk test W = **0.9417** **0.8907** **0.8527** **0.9688**
Conclusion = **Data are normally distributed**

Bartlett's test Chisquare = **2.9795**
P value = **0.395**
Conclusion = **Data have equal variance**

Figure 3F

		Collagen	Collagen + hPL	Fibrin	Fibrin + hPL	hPLG
		1.015544	1.3057	1.158537	1.597561	2.227612
		1.212435	1	1.103659	1.615854	2.048508
		1.160622	1.222798	1.353659	1.420732	2.227612
		1.243523	1.53886	1.371951	1.371951	2.132463
		0.968912	0.9082902	1.25	1.347561	2.003731
		1.07772	0.880829	1.432927	1.445122	2.014926
	Variance:	0.01213901	0.06676302	0.01680048	0.01302426	0.010455753
Shapiro-Wilk test	W =	0.9419	0.9200	0.9380	0.8697	0.8516
	Conclusion	= Data are normally distributed				
Bartlett's test	Chisquare =	6.75543				
	P value =	0.149				
	Conclusion =	Data have equal variance				

Figure 4A

		Collagen	Fibrin	hPLG
		895.62	1532.96	4715.09
		861.95	1903.07	4319.56
		1028.54	1777.7	4148.83
		1104.29	1846.04	4245.98
		927.02	1704.57	4100.35
		840.63	2012.66	4270.18
	Variance:	10576.0999	27758.7504	47840.4372
Shapiro-Wilk test	W =	0.9074	0.9873	0.8292
	Conclusion	Data are normally distributed		
	=			
Bartlett's test	Chisquare =	2.50513		
	P value =	0.286		
	Conclusion =	Data have equal variance		

Figure 7B

	Area:	Collagen	Fibrin	hPLG	Length:	Collagen	Fibrin	hPLG
		0.13	0.23	3.61		0.0375	0.0731	0.5741
		0.01	0.12	4.02		0.0102	0.0627	0.5869
		0.02	0.09	3.88		0.0440	0.0686	0.5488
		0.25	0.41	4.11		0.0562	0.0154	0.5461
		0.06	0.24	3.96		0.0254	0.0814	0.6114
		0.09	0.15	3.84		0.0378	0.0256	0.5975
	Variance:	0.00786667	0.01346667	0.02993987	Variance:	0.000250306	0.00073912	0.00069161
Shapiro-Wilk test	W =	0.8970	0.9021	0.9639	W =	0.9692	0.8564	0.9321
	Conclusion	= Data are normally distributed			Conclusion	= Data are normally distributed		
Bartlett's test	Chisquare =	2.17161			Chisquare =	1.5247		
	P value =	0.338			P value =	0.467		
	Conclusion =	Data have equal variance			Conclusion =	Data have equal variance		