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Supplementary Information

Promoting Endothelial Cell Affinity and Antithrombogenicity of Polytetrafluoroethylene (PTFE) by Mussel-Inspired Modification and RGD/Heparin Grafting

Hao-Yang Mi[a,b,c], *Xin Jing*[a, b, c]*, *James A. Thomsom*[d], *and Lih-Sheng Turng*[a,c]*

[a]Wisconsin Institute for Discovery, University of Wisconsin–Madison, WI, 53715, USA

[b]Department of Industrial Equipment and Control Engineering, South China University of Technology, Guangzhou, 510640, China

[c]Department of Mechanical Engineering, University of Wisconsin–Madison, WI, 53706, USA

[d]Morgridge Institute for Research, University of Wisconsin–Madison, WI, 53715, USA

***Corresponding authors:**

Lih-Sheng Turng, Tel: 608-316-4310; Email: turng@engr.wisc.edu

Xin Jing, Tel: 86-18578664293; Email: xjing3@wisc.edu

Table S1. Atom percentage results of PTFE, P-PTFE, DA-PTFE, RGD-PTFE, and R/H-PTFE from XPS survey scans.

Atom	PTFE	P-PTFE	DA-PTFE	RGD-PTFE	R/H-PTFE
C	33.7	36.7	69.9	65.1	60.9
O	0.1	4.1	15.3	17.3	24.2
F	66.2	59.2	9.3	9.4	7.3
N	/	/	5.5	8.2	5.5
S	/	/	/	/	2.1

Table S2. XPS C1s core-level scans of PTFE, P-PTFE, DA-PTFE, RGD-PTFE, and R/H-PTFE showing the binding energy (BE) and percentage of different carbon containing bonds.

Element	PTFE		P-PTFE		DA-PTFE		RGD-PTFE		R/H-PTFE	
	BE	%	BE	%	BE	%	BE	%	BE	%
C–C, C=C	286.3	13.4	286.3	42.7	284.7	65.0	284.8	55	285.6	30.4
C–N	/	/	/	/	285.7	8.0	285.6	20.6	286.4	2.8
C–O	/	/	286.3	17.3	286.1	17.4	286.4	16.3	287.1	35.7
C=O	/	/	287.8	0.8	287.9	6.3	287.8	4.0	288.5	29.3
CF	289.9	1.0	289.2	0.1	/	/	/	/	/	/
CF_2	293.1	52.9	292.6	25.2	292.0	2.7	292.1	3.0	292.8	1.2
CF_3	294.4	32.7	293.7	13.9	292.5	0.7	292.4	1.1	294.2	0.6

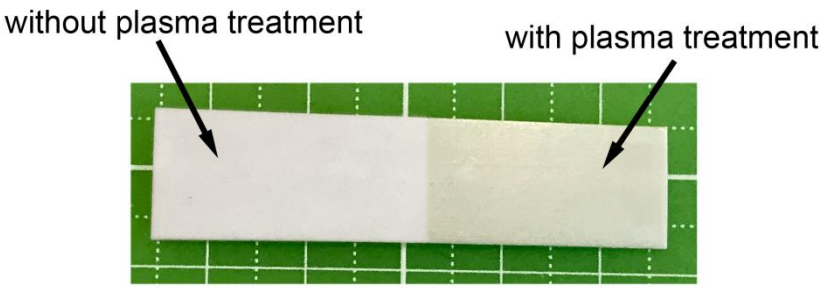

Figure S1. Digital photo of dopamine-coated PTFE (DA-PTFE) sheet. The left part was protected with tape during the O_2 plasma treatment. It was found that the plasma treatment greatly enhanced the dopamine coating efficiency.

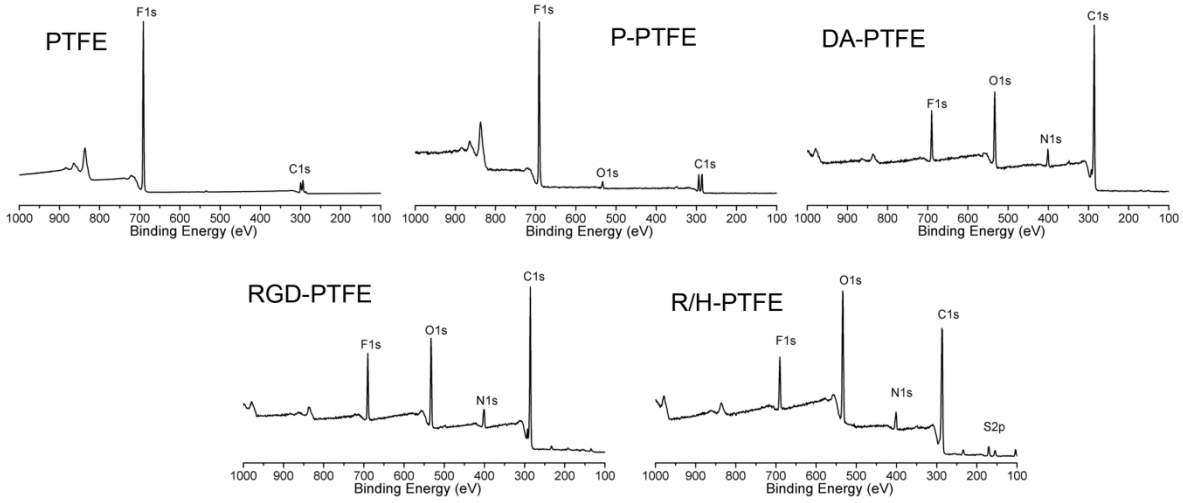

Figure S2. XPS survey scans of PTFE, P-PTFE, DA-PTFE, RGD-PTFE, and R/H-PTFE.

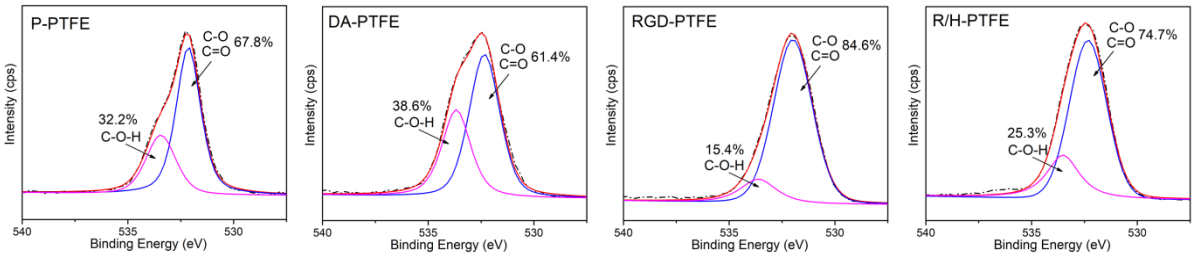

Figure S3. XPS O1s core level scans of P-PTFE, DA-PTFE, RGD-PTFE, and R/H-PTFE.

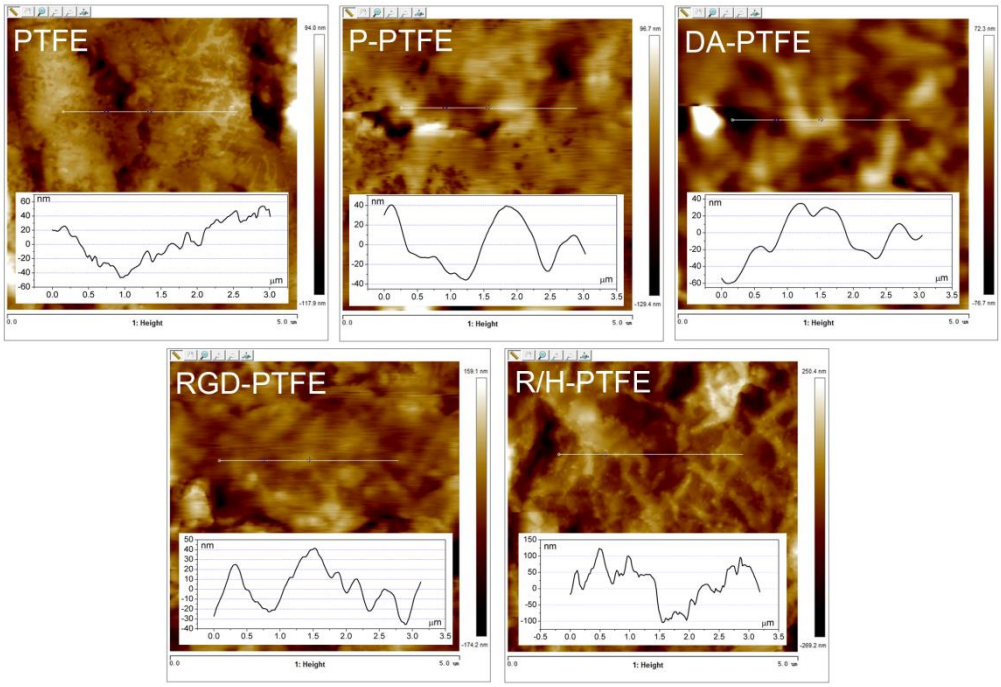

Figure S4. Cross-sectional AFM images and corresponding height profiles from the lines drawn on each image.

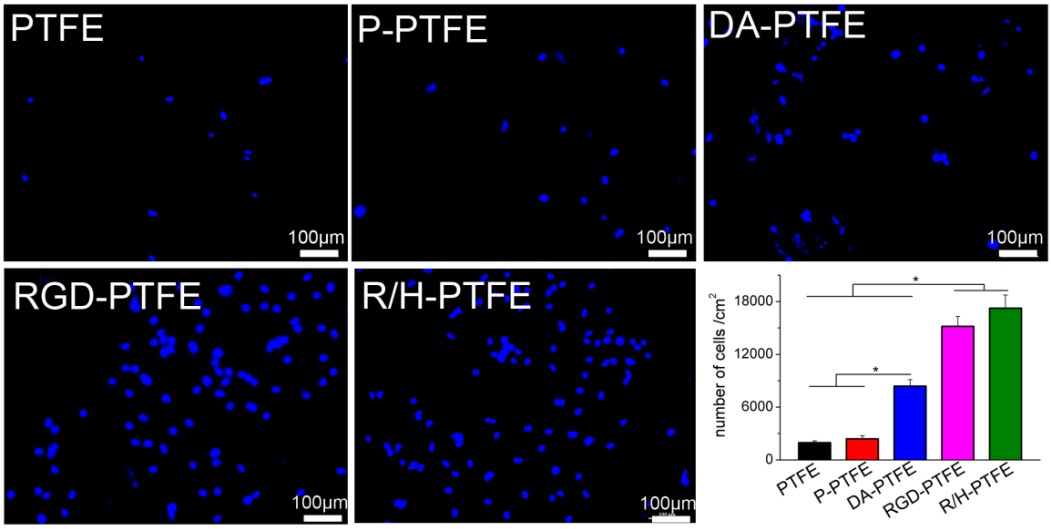

Figure S5. HUVEC attachment results after cell seeding for 4 h. Cell nuclei were stained with DAPI. The lower right diagram shows the statistical results of the number of cells attached to the different substrates.

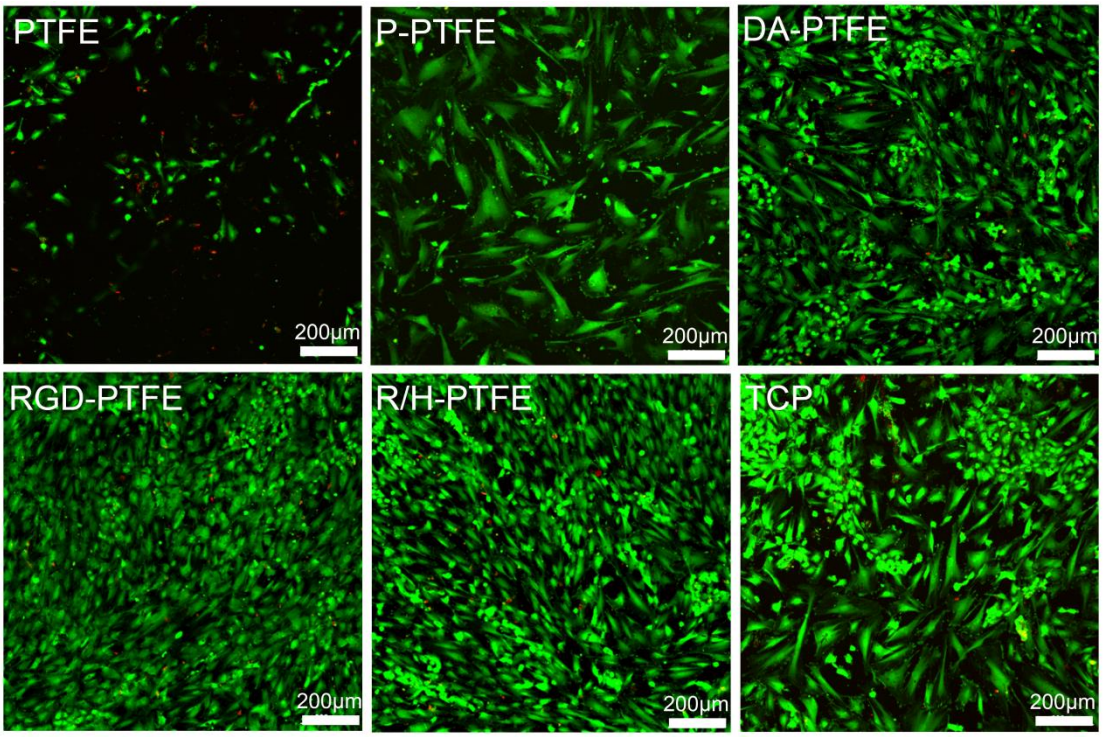

Figure S6. Fluorescence images of HUVECs cultured on different PTFE substrates for 14 days.

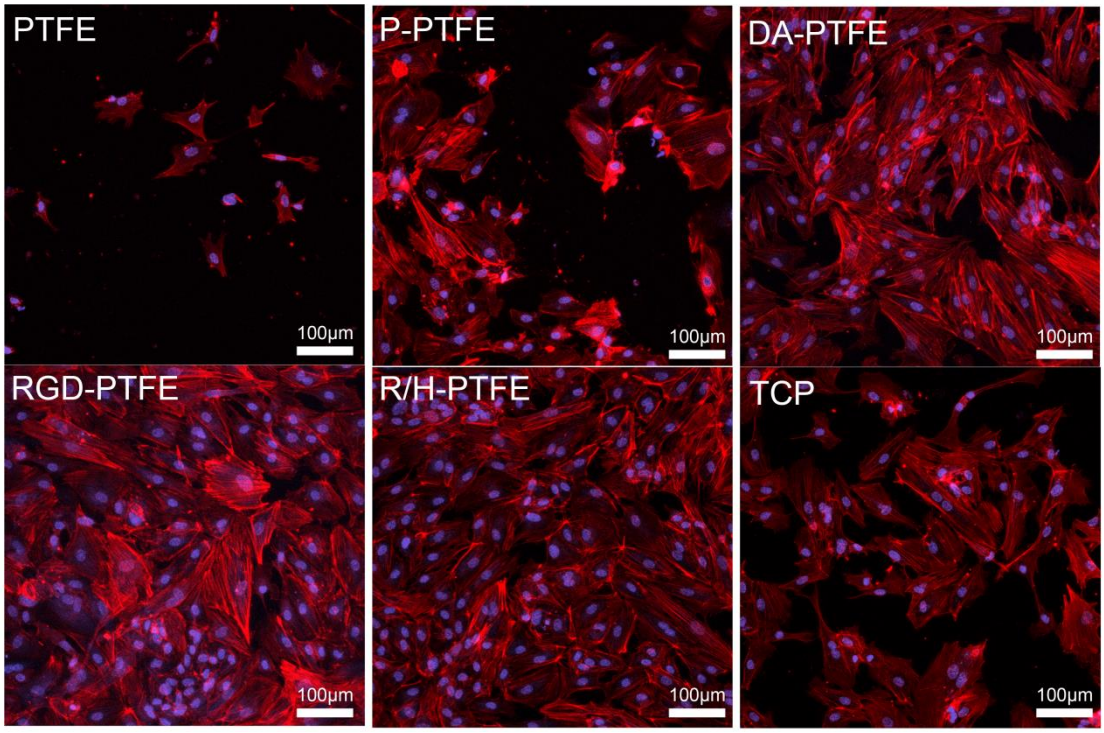

Figure S7. Fluorescence images showing the cytoskeleton of HUVECs cultured on different PTFE substrates for 14 days.