COMMUNICATION

ANTIFUNGAL NANOFIBERS MADE BY CONTROLLED RELEASE OF SEA ANIMAL DERIVED PEPTIDE

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1. HPCL chromatograms of Cm-p1-PVA fibers
2. SEM micrographies of Cm-p1-PVA fibers

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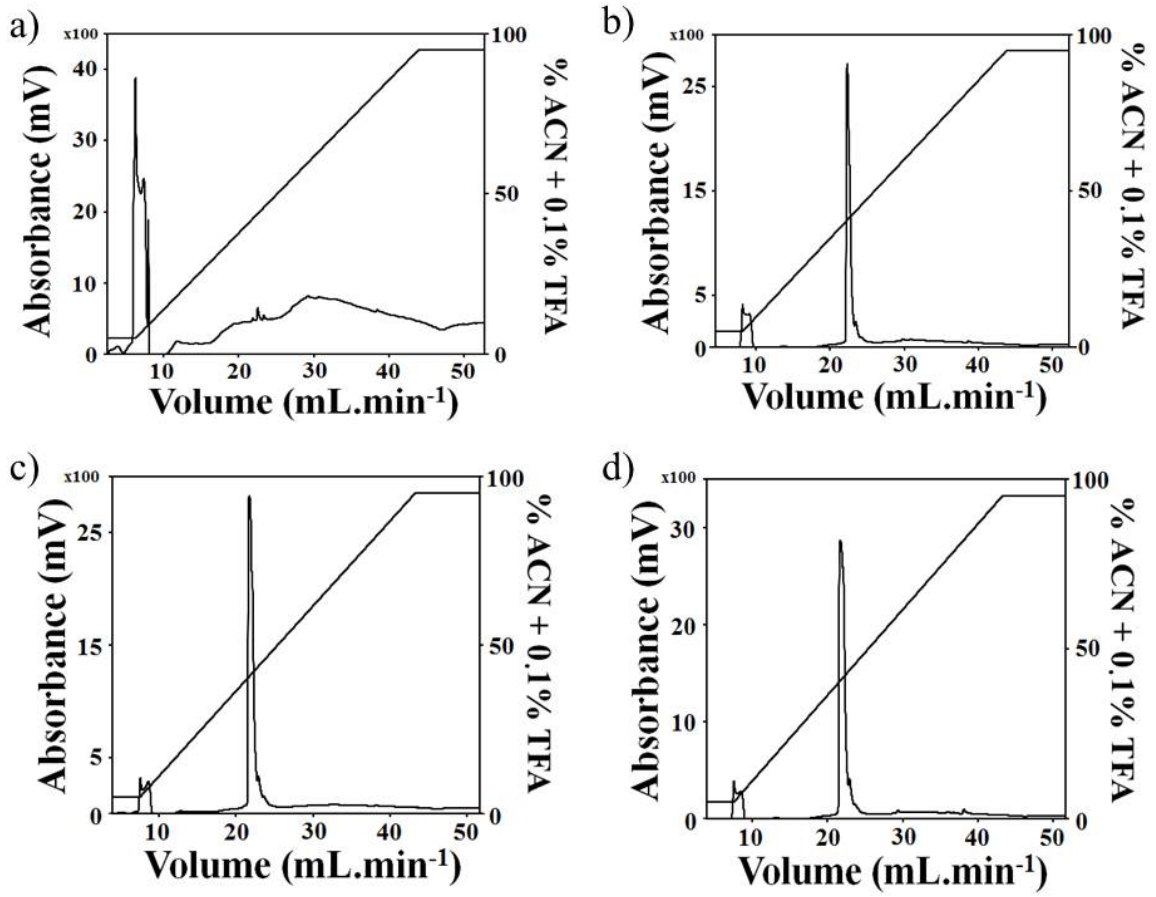

Fig 1. HPCL chromatograms of Cm-p1-PVA fibers after 24 h releasing. (a) PVA fiber, (b) 2,5 % Cm-p1-PVA fiber, (c) 5 % Cm-p1-PVA fiber and (d) 10 % Cm-p1-PVA fiber.

2. SEM micrographies of Cm-p1-PVA fibers

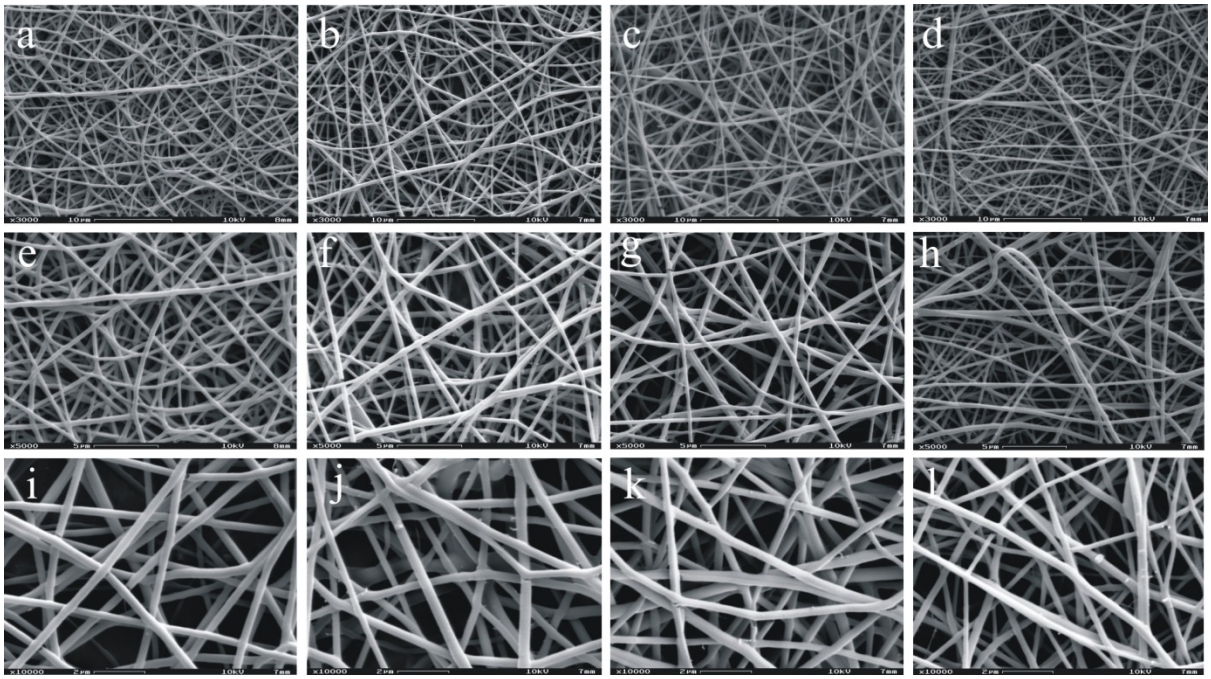

Fig 2. SEM of PVA and Cm-p1-PVA fibers. (a) 10 % PVA fibers, (b) 2,5 % Cm-p1- PVA fibers, (c) 5 % Cm-p1- PVA fibers, (d) 10 % Cm-p1- PVA fibers. (a)-(d) SEM micrographies in 3000X magnificance. (e) 10 % PVA fibers, (f) 2,5 % Cm-p1- PVA fibers, (g) 5 % Cm-p1- PVA fibers, (h) 10 % Cm-p1- PVA fibers. (e)-(h) SEM micrographies in 5000X magnificance. (i) 10 % PVA fibers, (j) 2,5 % Cm-p1- PVA fibers, (k) 5 % Cm-p1- PVA fibers, (l) 10 % Cm-p1- PVA fibers. (i)-(l) SEM micrographies in 10000X magnificance.

3. Quantified nanofibers release

Table 1. Quantified nanofibers release in different times with the triplicate media and standard deviation.

Release after 30 min				
	Control fiber ($mg.ml^{-1}$)	2.5 % Cm-p1-PVA fiber ($mg.ml^{-1}$)	5 % Cm-p1-PVA fiber ($mg.ml^{-1}$)	10 % Cm-p1-PVA fiber ($mg.ml^{-1}$)
Triplicate media	0.18	0.36	1.61	4.89
Standard deviation	0.03	0.49	0.12	2.02
Release after 60 min				
	Control fiber ($mg.ml^{-1}$)	2.5 % Cm-p1-PVA fiber ($mg.ml^{-1}$)	5 % Cm-p1-PVA fiber ($mg.ml^{-1}$)	10 % Cm-p1-PVA fiber ($mg.ml^{-1}$)
Triplicate media	0.13	0.47	0.77	3.43
Standard deviation	0.14	0.79	0.40	1.38
Release after 90 min				
	Control fiber ($mg.ml^{-1}$)	2.5 % Cm-p1-PVA fiber ($mg.ml^{-1}$)	5 % Cm-p1-PVA fiber ($mg.ml^{-1}$)	10 % Cm-p1-PVA fiber ($mg.ml^{-1}$)
Triplicate media	0.23	0.15	0.95	4.29
Standard deviation	0.09	0.17	1.08	1.42
Release after 120 min				
	Control fiber ($mg.ml^{-1}$)	2.5 % Cm-p1-PVA fiber ($mg.ml^{-1}$)	5 % Cm-p1-PVA fiber ($mg.ml^{-1}$)	10 % Cm-p1-PVA fiber ($mg.ml^{-1}$)
Triplicate media	0.27	0.42	2.17	5.83
Standard deviation	0.11	0.52	1.60	0.31
Release after 4 h				
	Control fiber ($mg.ml^{-1}$)	2.5 % Cm-p1-PVA fiber ($mg.ml^{-1}$)	5 % Cm-p1-PVA fiber ($mg.ml^{-1}$)	10 % Cm-p1-PVA fiber ($mg.ml^{-1}$)
Triplicate media	0.25	0.11	0.69	2.79
Standard deviation	0.08	0.07	0.77	1.32
Release after 8 h				
	Control fiber ($mg.ml^{-1}$)	2.5 % Cm-p1-PVA fiber ($mg.ml^{-1}$)	5 % Cm-p1-PVA fiber ($mg.ml^{-1}$)	10 % Cm-p1-PVA fiber ($mg.ml^{-1}$)
Triplicate media	0.27	0.53	1.06	2.03
Standard deviation	0.07	0.21	0.28	0.58
Release after 12 h				
	Control fiber ($mg.ml^{-1}$)	2.5 % Cm-p1-PVA fiber ($mg.ml^{-1}$)	5 % Cm-p1-PVA fiber ($mg.ml^{-1}$)	10 % Cm-p1-PVA fiber ($mg.ml^{-1}$)
Triplicate media	0.31	0.40	0.71	1.06
Standard deviation	0.08	0.11	0.11	0.32

		Release after 24 h		
	Control fiber ($mg.ml^{-1}$)	2.5 % Cm-p1-PVA fiber ($mg.ml^{-1}$)	5 % Cm-p1-PVA fiber ($mg.ml^{-1}$)	10 % Cm-p1-PVA fiber ($mg.ml^{-1}$)
Triplicate media	0.27	1.92	3.04	5.26
Standard deviation	0.20	0.73	0.44	2.43
		Release after 48 h		
	Control fiber ($mg.ml^{-1}$)	2.5 % Cm-p1-PVA fiber ($mg.ml^{-1}$)	5 % Cm-p1-PVA fiber ($mg.ml^{-1}$)	10 % Cm-p1-PVA fiber ($mg.ml^{-1}$)
Triplicate media	0.13	0.68	1.31	3.08
Standard deviation	0.01	0.34	1.38	1.44
		Release after 72 h		
	Control fiber ($mg.ml^{-1}$)	2.5 % Cm-p1-PVA fiber ($mg.ml^{-1}$)	5 % Cm-p1-PVA fiber ($mg.ml^{-1}$)	10 % Cm-p1-PVA fiber ($mg.ml^{-1}$)
Triplicate media	0.12	0.14	0.29	0.52
Standard deviation	0.00	0.10	0.22	0.37

4. Hemolytic activity

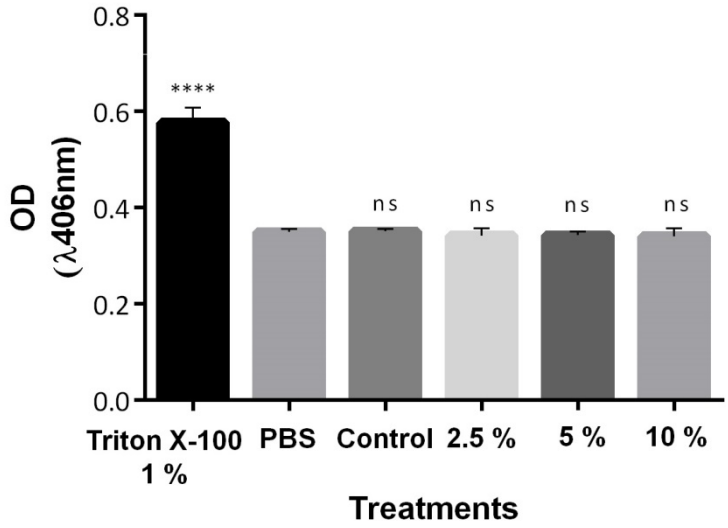

Fig 3 Evaluation of hemolytic activity of PVA and Cm-p1-PVA nanofibers in comparison with negative control (PBS) from 24 h peptide release. Triton X-100 corresponds to positive control. Data represent mean ± SD. NS: no significance. (*$P < 0.1$; ****$P < 0.0001$).