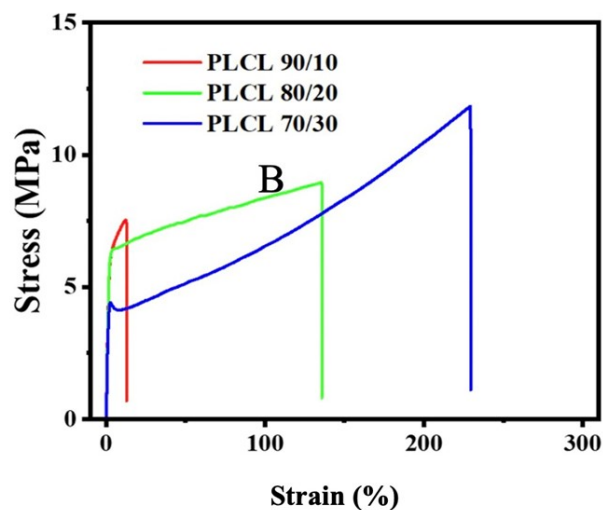
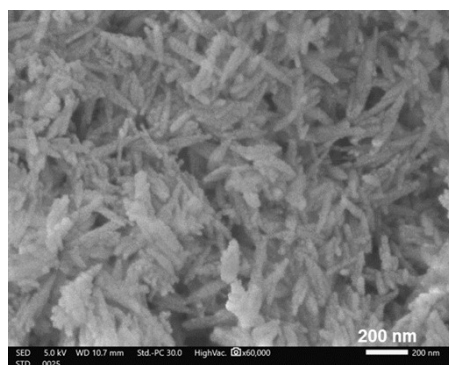


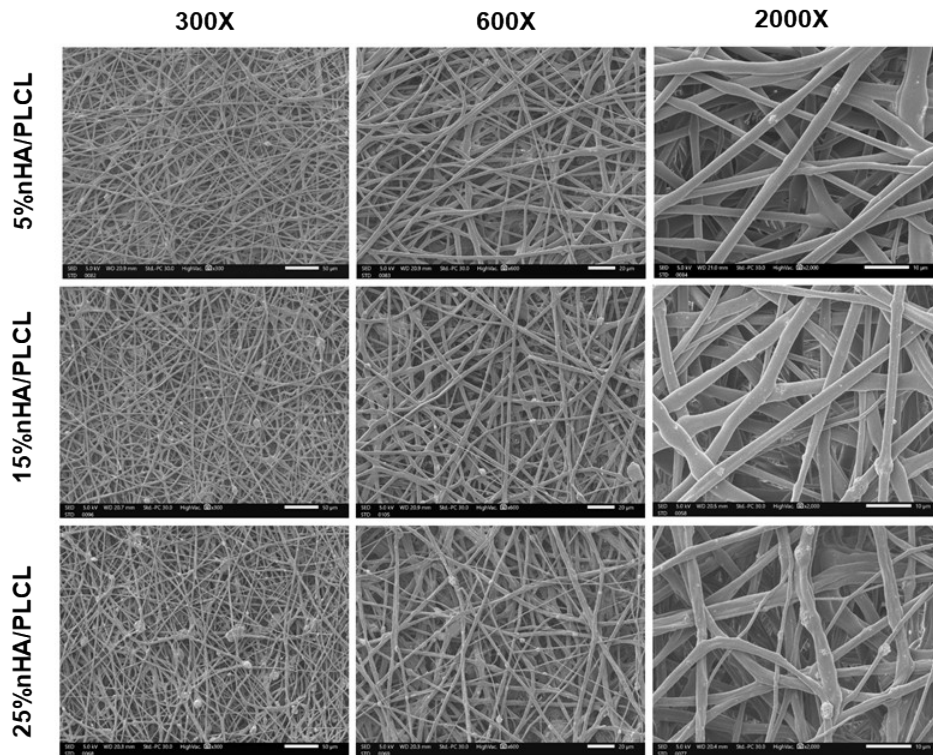
## Supporting information



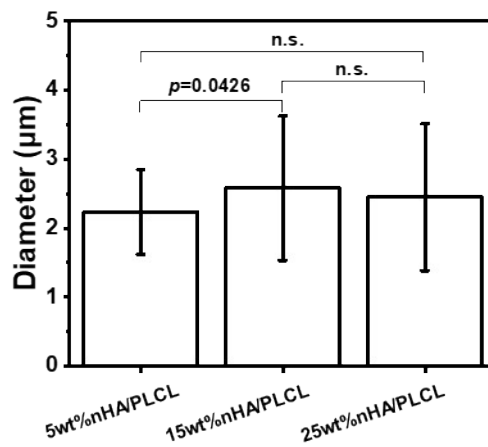
**Figure S1:** Stress-strain curves of PLCL 90/10, PLCL 80/20 and PLCL 70/30 electrospun membranes.



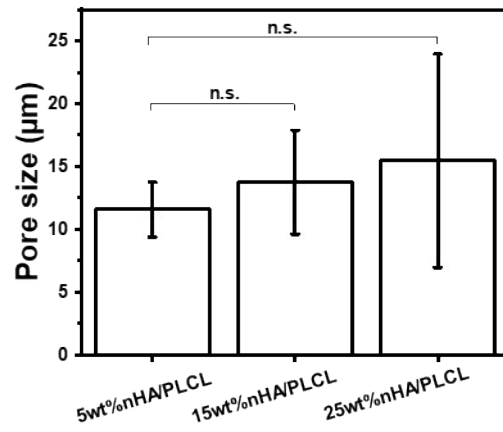
**Figure S2.** SEM images of the nHA used for preparing nHA/PLCL membrane for dura repair.



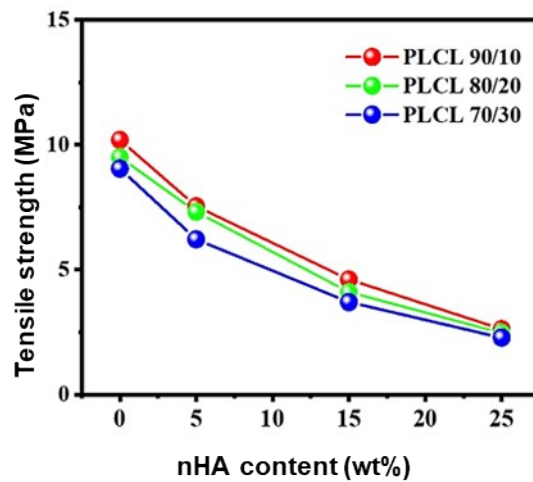
**Figure S3:** SEM images of nHA/PLCL electrospun membranes with varying nHA content.



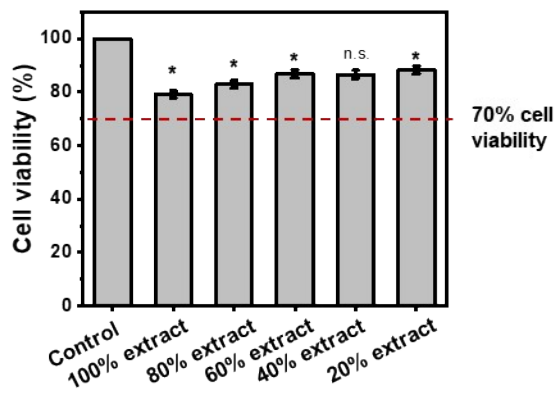
**Figure S4:** Calculation of nHA/PLCL electrospun membranes' fiber diameter according to SEM images.



**Figure S5:** Calculation of nHA/PLCL electrospun membranes' pore size according to SEM images.



**Figure S6:** Tensile strength of nHA/PLCL membranes.



**Figure S7:** Cell viability calculation after 15%wt nHA/PLCL membrane extract treatment.

**Table S1** Quantification of inflammatory cell number in cerebrospinal fluid at 1, 2, 3 months. ( n=3; vs Control, P\*\*\*<0.001 )

<b>Implantation time</b>	<b>Group</b>	<b>Neutrophil cell count</b>	<b>Eosinophils cell count</b>	<b>Basophilic granulocyte count</b>	<b>Lymphocyte count</b>	<b>Macrophage count</b>	<b>Total inflammatory cell count</b>
<b>1 month</b>	Control	0.00±0.00	0.00±0.00	0.00±0.00	0.40±0.55	0.00±0.00	0.40±0.55
	Commercial	0.00±0.00	0.00±0.00	0.00±0.00	0.60±1.34	0.00±0.00	0.60±1.34
	nHA/PLCL	0.00±0.00	0.00±0.00	0.00±0.00	0.60±1.34	0.00±0.00	0.60±1.34
<b>2 months</b>	Control	0.00±0.00	0.20±0.45	106.60±98.30	7.80±13.59	5.60±5.37	120.20±109.27
	Commercial	0.00±0.00	0.00±0.00	0.20±0.45 <sup>***</sup>	0.60±1.34	0.00±0.00 <sup>***</sup>	1.00±1.22 <sup>***</sup>
	nHA/PLCL	0.00±0.00	0.00±0.00	0.20±0.45 <sup>***</sup>	0.40±0.89	0.00±0.00 <sup>***</sup>	0.60±0.89 <sup>***</sup>
<b>3 months</b>	Control	0.00±0.00	0.00±0.00	95.50±110.52	0.00±0.00	4.50±9.00	100.00±115.47
	Commercial	0.00±0.00	0.00±0.00	0.60±0.89	0.00±0.00	0.00±0.00	0.60±0.89

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nHA/PLCL	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00	0.00±0.00
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