

## Electronic Supplementary Information

### Bioinspired multilayer membranes as potential adhesive patch for skin wound healing

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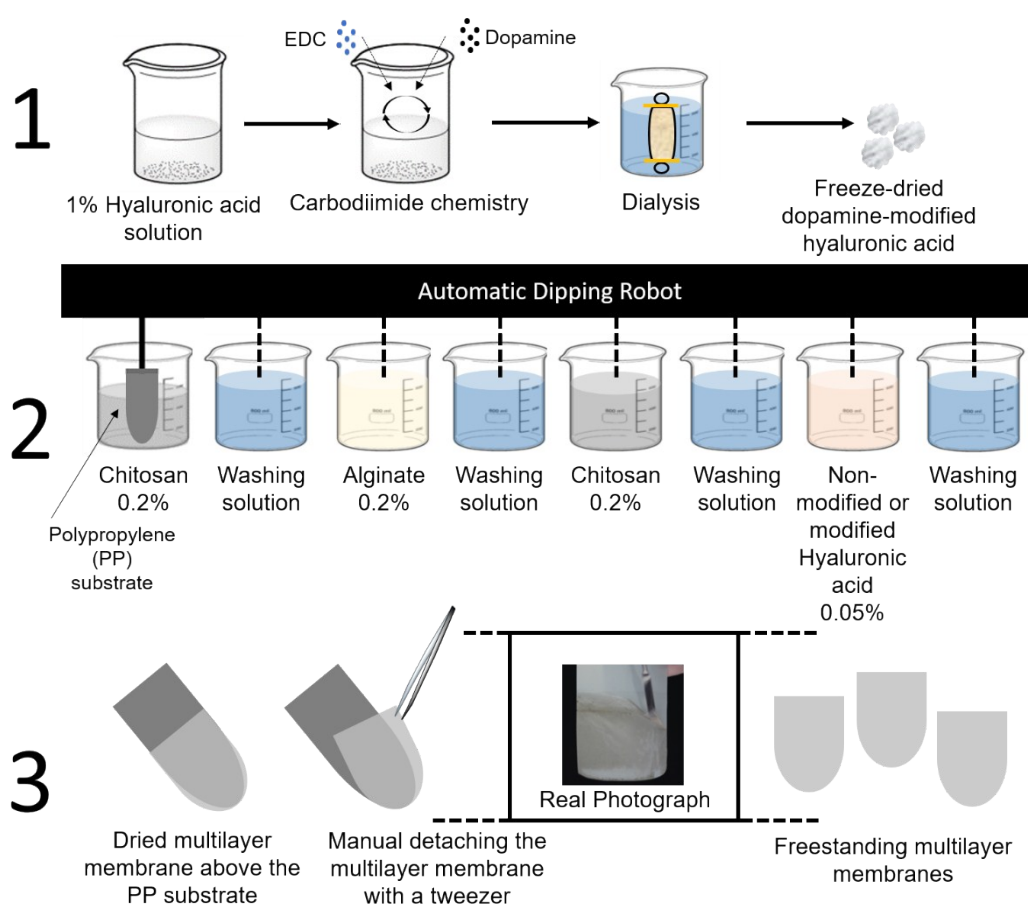


Figure S1. Schematic representation of the synthesis of the conjugated HA-DN (1), the layer-by-layer assembly using the dipping robot equipment (2) and finally the detachment method employed to obtain the freestanding multilayer membrane (3). A real photograph of the detachment step of the [CHT/ALG/CHT/HA-DN]<sub>100</sub> multilayer membrane is also presented.

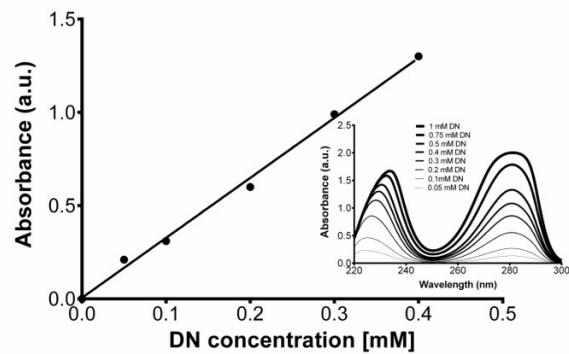


Figure S2. Inset shows the UV-Vis spectra of dopamine solutions with different concentrations and the figure represents the respective calibration curve that correlates DN concentration with measured absorbance.

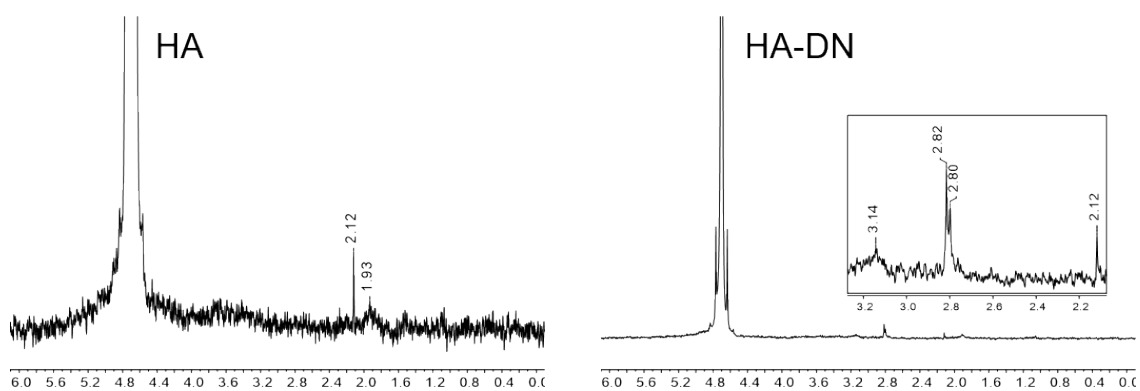


Figure S3. <sup>1</sup>H-NMR spectra of HA and the synthesized conjugate HA-DN.