

## Electronic Supplementary Information

### **Neuroinduction and neuroprotection co-enhanced spinal cord injury repair based on IL-4@ZIF-8-loaded hyaluronan-collagen hydrogels with nano- aligned and viscoelastic cues**

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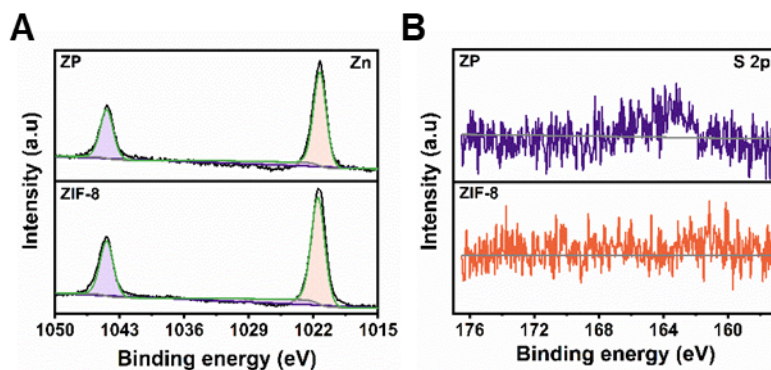
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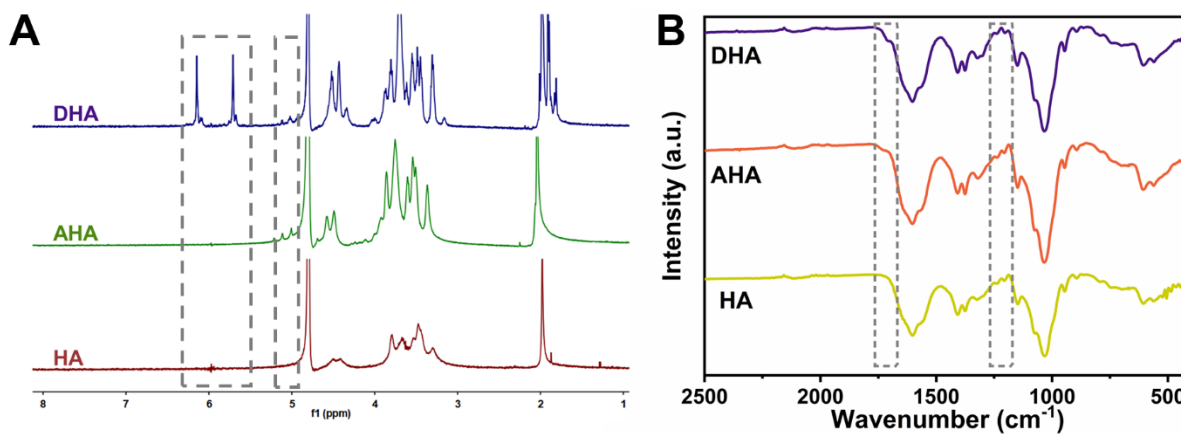
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Supplementary Figure S1:



**Fig. S1.** (A) Zn 2p and (B) S 2p spectra of ZIF-8 and ZP NPs according to XPS.

Supplementary Figure S2:



**Fig. S2.** The <sup>1</sup>H NMR spectra (A) and FTIR spectra (B) of HA, aldehyde groups-modified HA (AHA) and HA double-modified with methacrylate and aldehyde groups (DHA).