Supplementary Information (SI) for Materials Advances. This journal is © The Royal Society of Chemistry 2025

## Nitric Oxide-Scavenging Micelles Alleviate Airway Inflammation in Asthma via Th2 Cytokine Modulation

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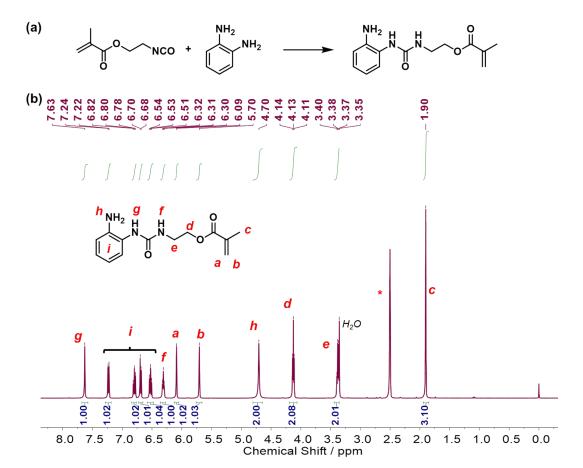
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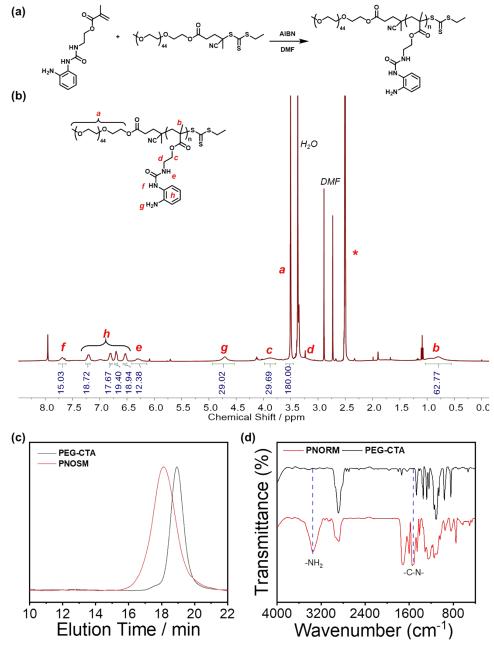
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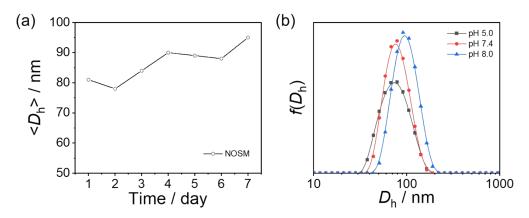
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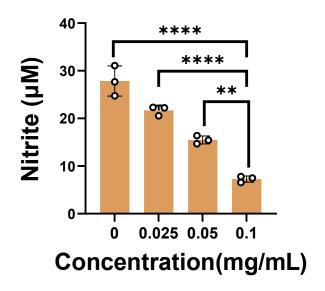
**Figure S1.** (a) Synthetic route of APUMA. (b) <sup>1</sup>H NMR in DMSO-*d*<sub>6</sub> for APUMA.



**Figure S2.** (a) Synthetic routes of PNOSM diblock copolymers. (b) <sup>1</sup>H NMR spectra of PNOSM diblock copolymers. (c) GPC traces of PNOSM diblock copolymers. (d) FTIR spectra recorded of PNOSM and PEG-CTA.



**Figure S3.** (a) Size variation of NOSM over 7 days at 37  $^{\circ}$ C. (b) NOSM under varying pH conditions.



**Figure S4.** NOSM effectively clears NO in vitro, Raw264.7 cells were treated with different concentration of NOSM (0 - 0.1 mg/mL) (n=3).

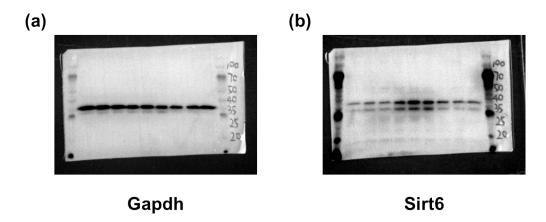


Figure S5. Raw data of the Western blot in Figure 5 c,d.

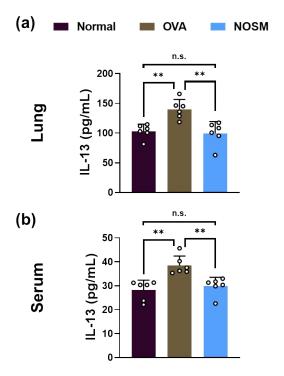
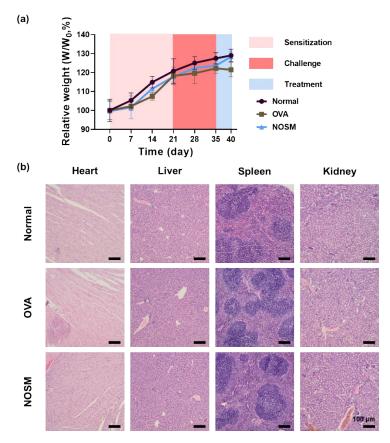


Figure S6. IL-13 concentrations in lung tissues (a) and serum (b).



**Figure S7**. (a) Body wight change curves of Balb/C mice after various treatment (b) H&E staining of organs in mice after different treatment. Scale bar 100  $\mu$ m.