Electronic Supplementary Material (ESI) for Biomaterials Science.

Supplementary Information

A Magnetic Mucus-Penetrating Nano-Agent Boosting Phlegm Elimination for Inhalation Injury Treatment

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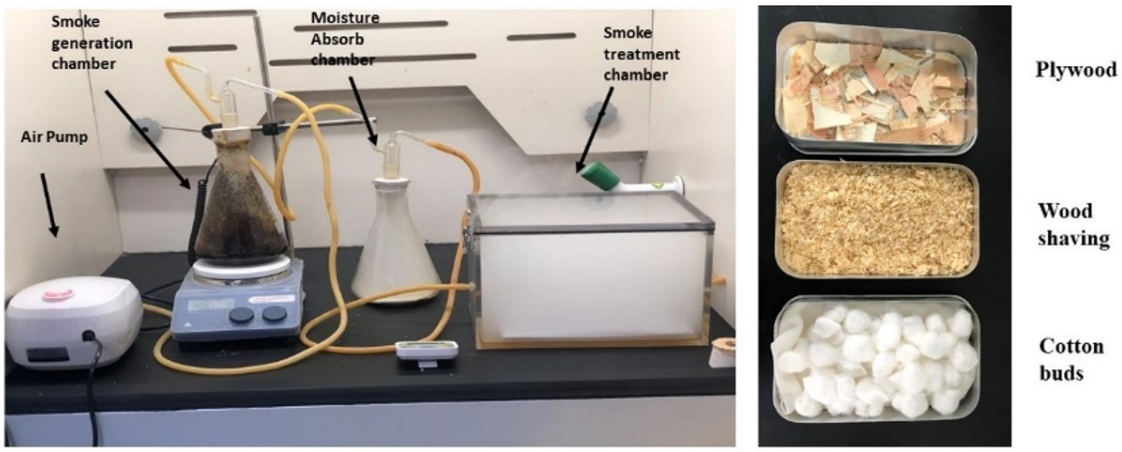

Figure S1. Demonstration of the rat model of smoke inhalation injury.

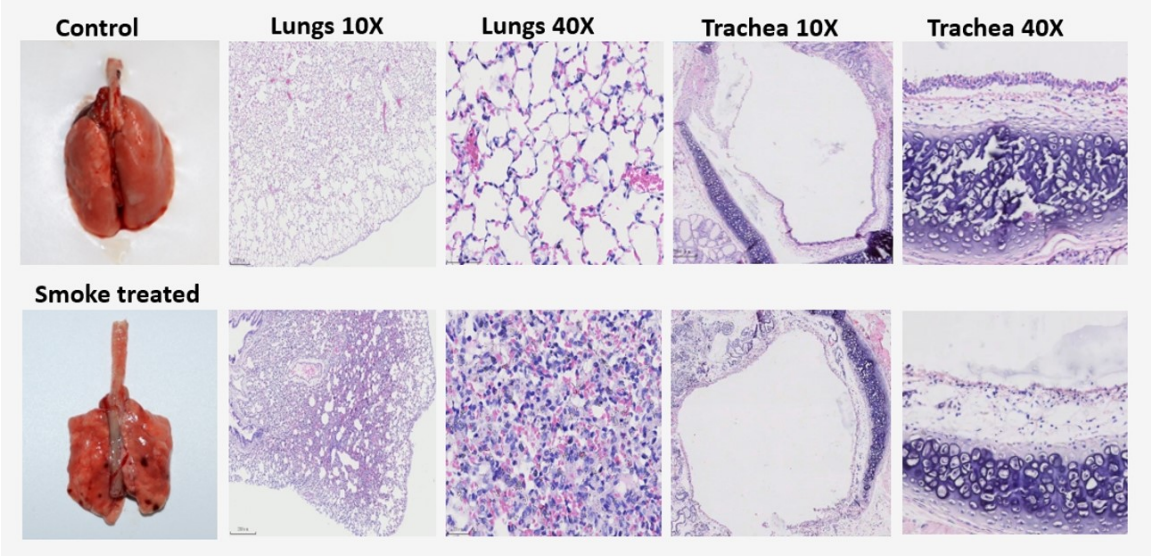

Figure S2. Evidence of smoke inhalation injury in rat models. Deposition of soot and injured rat lungs. Histological evidence of smoke-injured lung in rat 24 h after smoke inhalation injury.

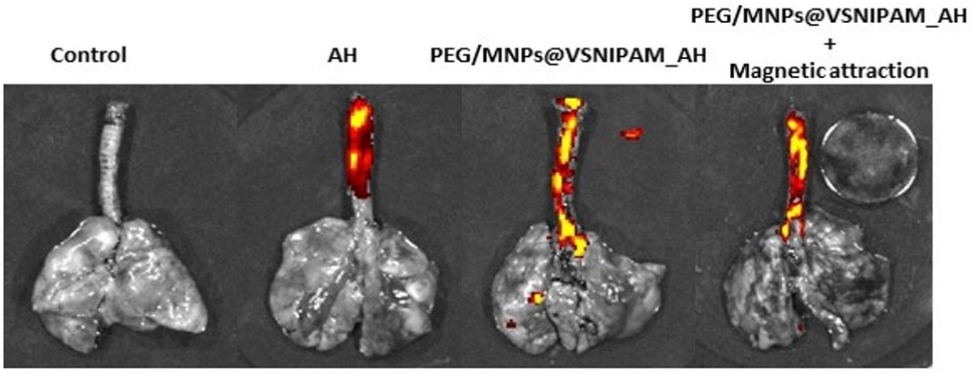

Figure S3. Ex vivo fluorescence imaging of drug and nanoparticle distribution in the trachea labeled with Rhodamine B fluorescence. The control was injected with only PBS solution.

Figure S4. An ultrasound laser has been used to increase the temperature of nanoparticles *in vivo* to enhance the drug release. The infrared thermometer was used to measure the temperature.

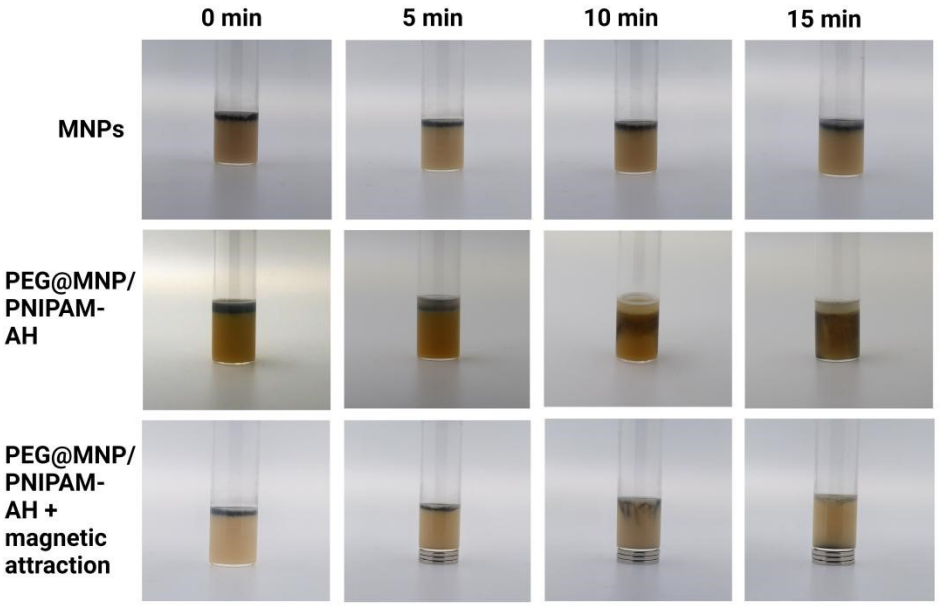

Figure S5. Mucus-penetration performances of various samples. Visual inspection of various samples penetrates through the artificial mucus layers.