

## Supplementary Information

Hydrogen sulfide-releasing polyurethane/gelatin/keratin-TA conjugate mats for wound healing

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## 1 UV-Vis spectra

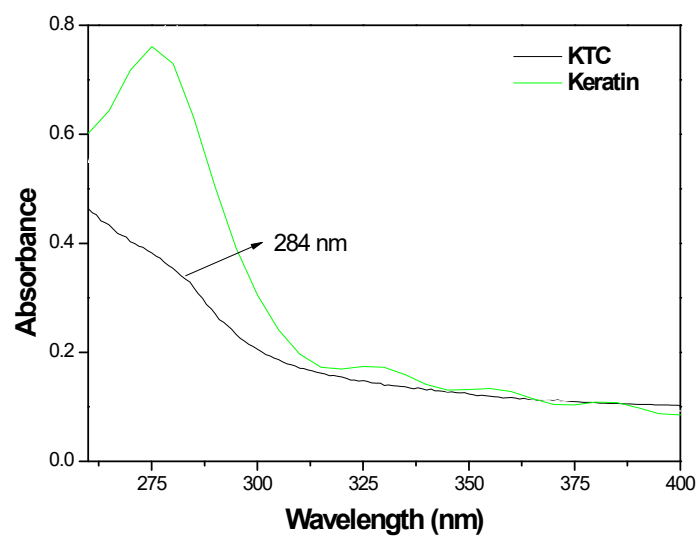


Fig.S1 UV-Vis spectra of keratin and KTC

## 2 H-NMR

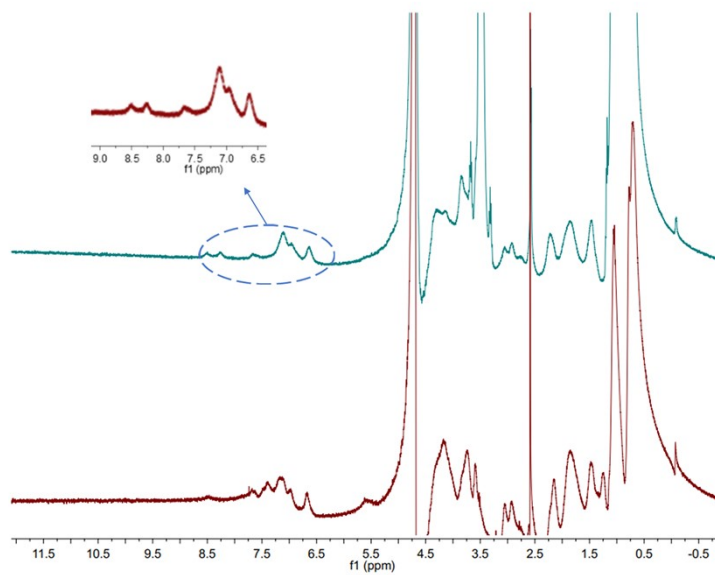


Fig.S2 H-NMR of keratin(lower) and KTC(upper)

### 3 Diameter of nanofibers

Table S1 The diameter and distribution of nanofibers

	Mean (nm)	SD (nm)
PU	676.6	273.9
PU/Gel	380.7	136.9
PU/Gel/KTC	334.2	108.3

### 4 XPS

Table S2 Surface element composition of nanofibers by XPS

Samples	Element (atom%)			
	C <sub>1s</sub>	O <sub>1s</sub>	N <sub>1s</sub>	S <sub>2p</sub>
PU	70.9	22.8	3.2	0
PU/Gel	72.1	19.8	7.2	0
PU/Gel/KTC	68.9	20.0	10.3	<b>0.7</b>

### 5 Histological analysis

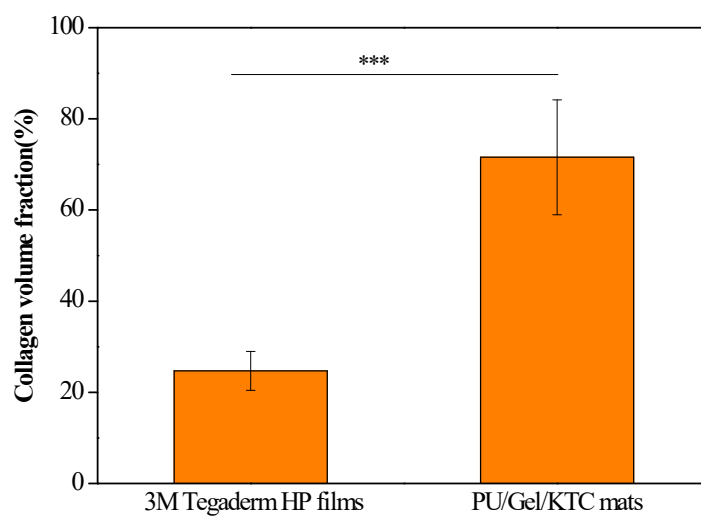


Fig.S3 Collagen volume fraction of wounds treated with 3M Tegaderm HP films and PU/Gel/KTC

mats for 15 days.

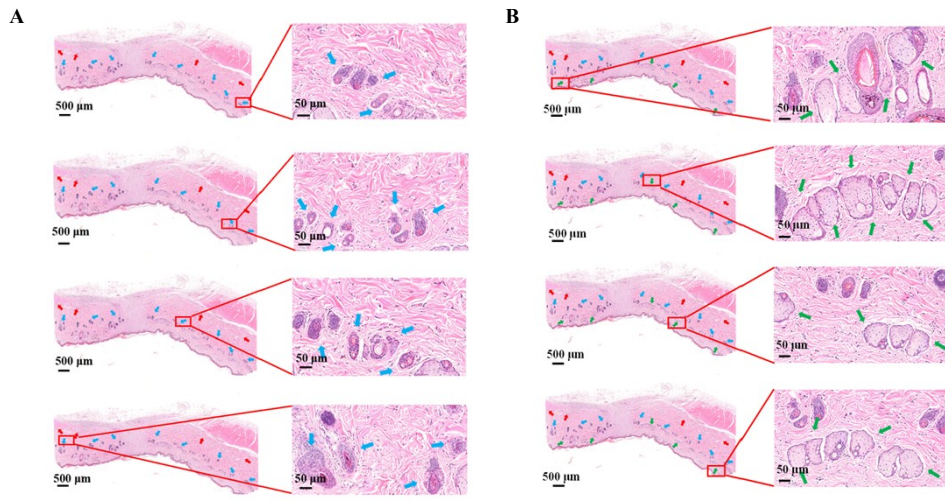


Fig.S4 The newborn hair follicles (A) and the newborn sebaceous glands (B) in the ulcer bed as treated with PU/Gel/KTC mats for 15 days (blue arrows and green arrows indicated hair follicles and sebaceous glands, respectively).