Supplementary Materials

Peelable Microneedle Patches Deliver Fibroblast Growth Factors to Repair Skin Photoaging Damage

Guojun Yang123, Shiqi Hu23, Haiyue Jiang1, Ke Cheng*23

1Plastic Surgery Hospital, Chinese Academy of Medical Sciences & Peking Union of Medical College, 33 Ba-Da-Chu Rd., Beijing, 100144, P.R.China.

2Department of Molecular Biomedical Sciences and Comparative Medicine Institute, North Carolina State University, Raleigh, North Carolina 27607, United States.

3Joint Department of Biomedical Engineering, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina 27599, United States, and North Carolina State University, Raleigh, North Carolina 27606, United States.

*Corresponding author.

Email addresses: ke_cheng@ncsu.edu.
Figure S1. Mechanical strength of microneedle patch. A. Schematic illustration of the compression test for a single microneedle patch. B. Graphs of displaced distances and applied forces for the microneedle patch with a needle tip height of 500 μm.

Figure S2. Images of mice skin over time frame following the application of microneedle. From left to right, 5 min, 1 h, 2 h, 6 h, 12 h, 24 h and 36 h after application. The needle tips are invisible in 36 h after application. (B) H&E staining of the skin 5 min after microneedle application.