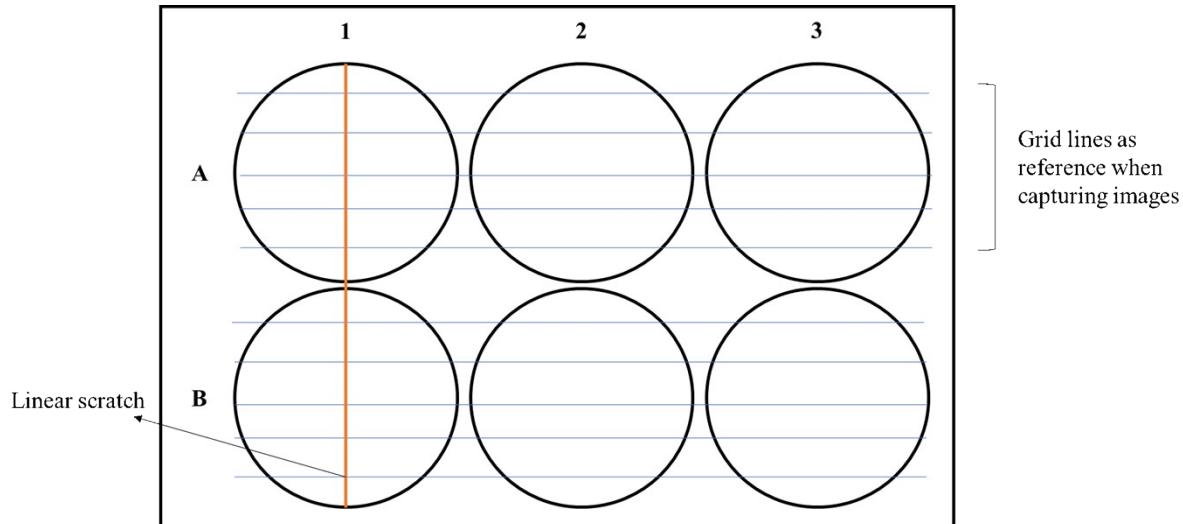


Supplementary 1

Illustration of linear scratch on 6-well plate for wound healing assay.



Supplementary 2

The Measured Biodegradation Rate of (CGPP) Hydrogels.

CGPP hydrogels type	Biodegradation rate (g min ⁻¹)
CGPP-0	0.0008
CGPP-1	0.0012
CGPP-2	0.0014
CGPP-3	0.0015
CGPP-4	0.0014
CGPP-5	0.0020
CGPP-6	0.0026

Supplementary 3

The Calculated Concentration of Hydrogels Released in PBS Solutions After 14 Days of Incubation

CGPP hydrogels type released in PBS	Absorbance (a.u.)	Calculated concentration (mol/cm ³)
CGPP-0	0.3348	0.0018
CGPP-1	0.3767	0.0395
CGPP-2	0.4172	0.0760
CGPP-3	0.3801	0.0425
CGPP-4	0.4125	0.0718
CGPP-5	0.3524	0.0177

CGPP-6	0.3771	0.0399
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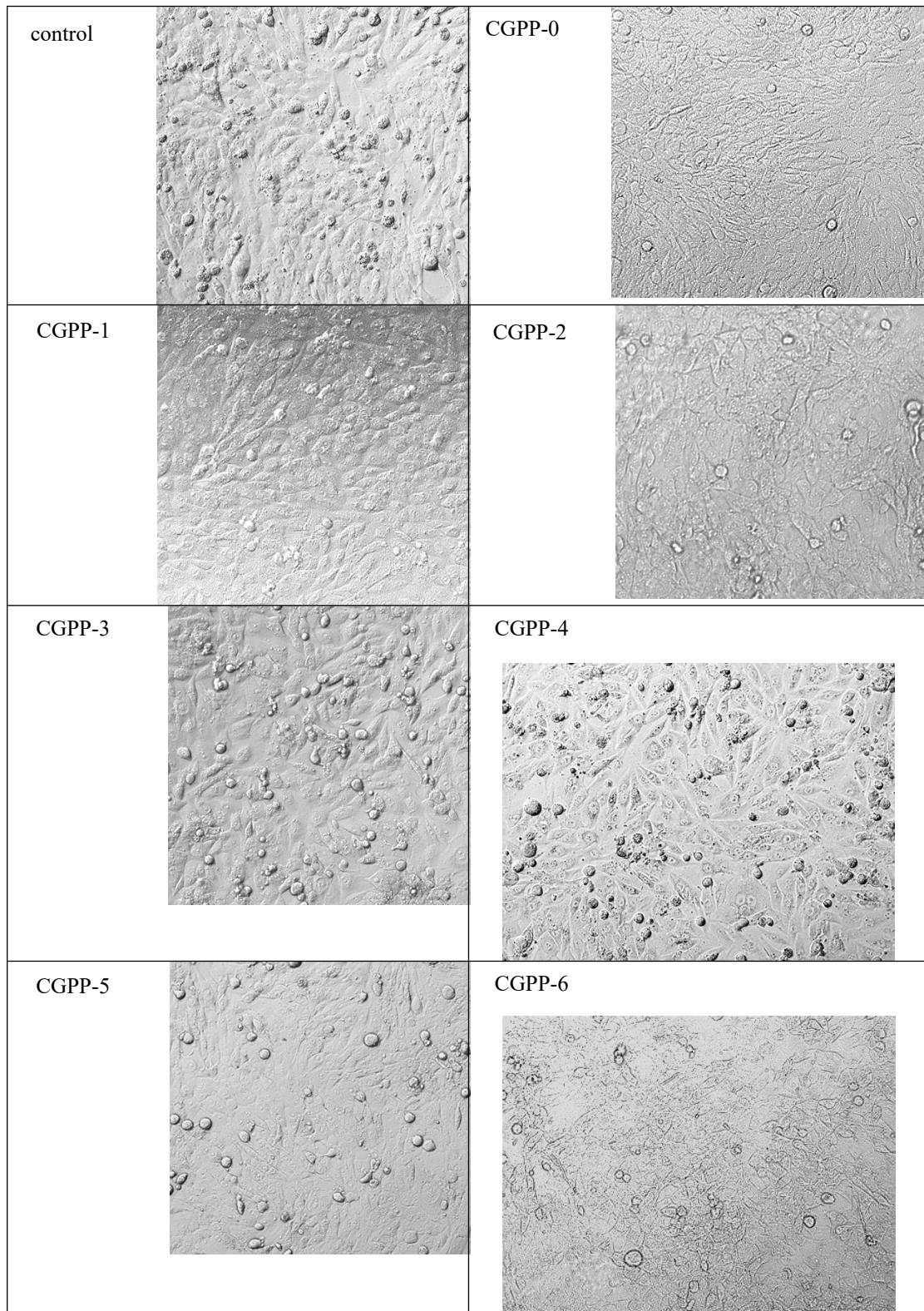
Supplementary 4

The measured mixed ionic–electronic conductivity values of CGPP hydrogels (mean \pm standard deviation) before incubation and after 1 and 2 weeks of incubation under physiological conditions.

Hydrogels	Mean	Standard deviation
Before Incubation		
CGPP-0	1.19×10^{-3}	$\pm 0.07 \times 10^{-3}$
CGPP-1	8.32×10^{-4}	$\pm 0.05 \times 10^{-4}$
CGPP-2	4.51×10^{-4}	$\pm 0.03 \times 10^{-4}$
CGPP-3	1.51×10^{-3}	$\pm 0.09 \times 10^{-3}$
CGPP-4	2.46×10^{-3}	$\pm 0.15 \times 10^{-3}$
CGPP-5	5.49×10^{-4}	$\pm 0.04 \times 10^{-4}$
CGPP-6	3.78×10^{-4}	$\pm 0.03 \times 10^{-4}$
After 1-week incubation		
CGPP-0	1.13×10^{-3}	$\pm 0.08 \times 10^{-3}$
CGPP-1	6.75×10^{-4}	$\pm 0.05 \times 10^{-4}$
CGPP-2	4.21×10^{-4}	$\pm 0.03 \times 10^{-4}$
CGPP-3	1.49×10^{-3}	$\pm 0.10 \times 10^{-3}$
CGPP-4	2.49×10^{-3}	$\pm 0.18 \times 10^{-3}$
CGPP-5	5.41×10^{-4}	$\pm 0.04 \times 10^{-4}$
CGPP-6	3.20×10^{-4}	$\pm 0.03 \times 10^{-4}$
After 2 weeks incubation		
CGPP-0	8.47×10^{-4}	$\pm 0.09 \times 10^{-4}$
CGPP-1	8.65×10^{-4}	$\pm 0.07 \times 10^{-4}$
CGPP-2	4.21×10^{-4}	$\pm 0.04 \times 10^{-4}$
CGPP-3	3.45×10^{-4}	$\pm 0.05 \times 10^{-4}$
CGPP-4	4.74×10^{-4}	$\pm 0.06 \times 10^{-4}$
CGPP-5	4.09×10^{-4}	$\pm 0.04 \times 10^{-4}$
CGPP-6	2.69×10^{-4}	$\pm 0.03 \times 10^{-4}$

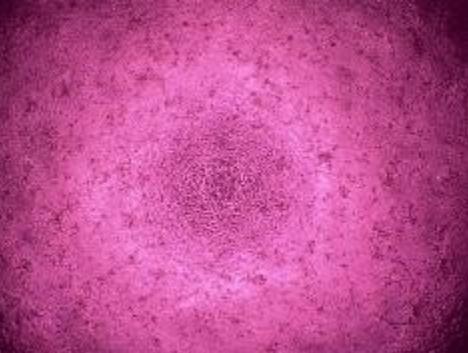
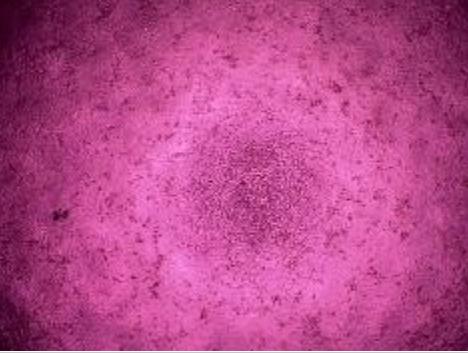
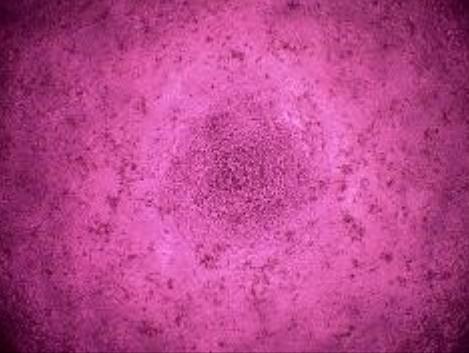
Supplementary 5

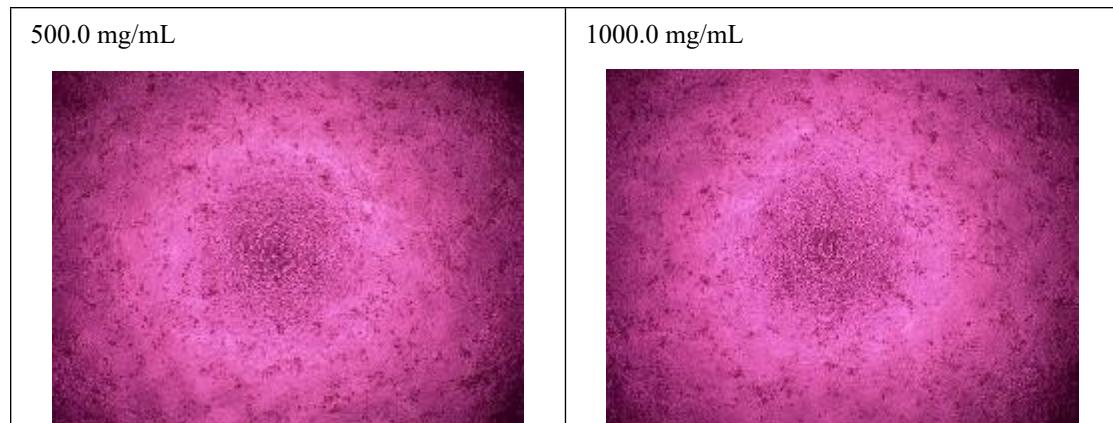
The images of cells captured from microscope representing the condition of cells after 24 hours of CGPP hydrogels treatment



Supplementary 6

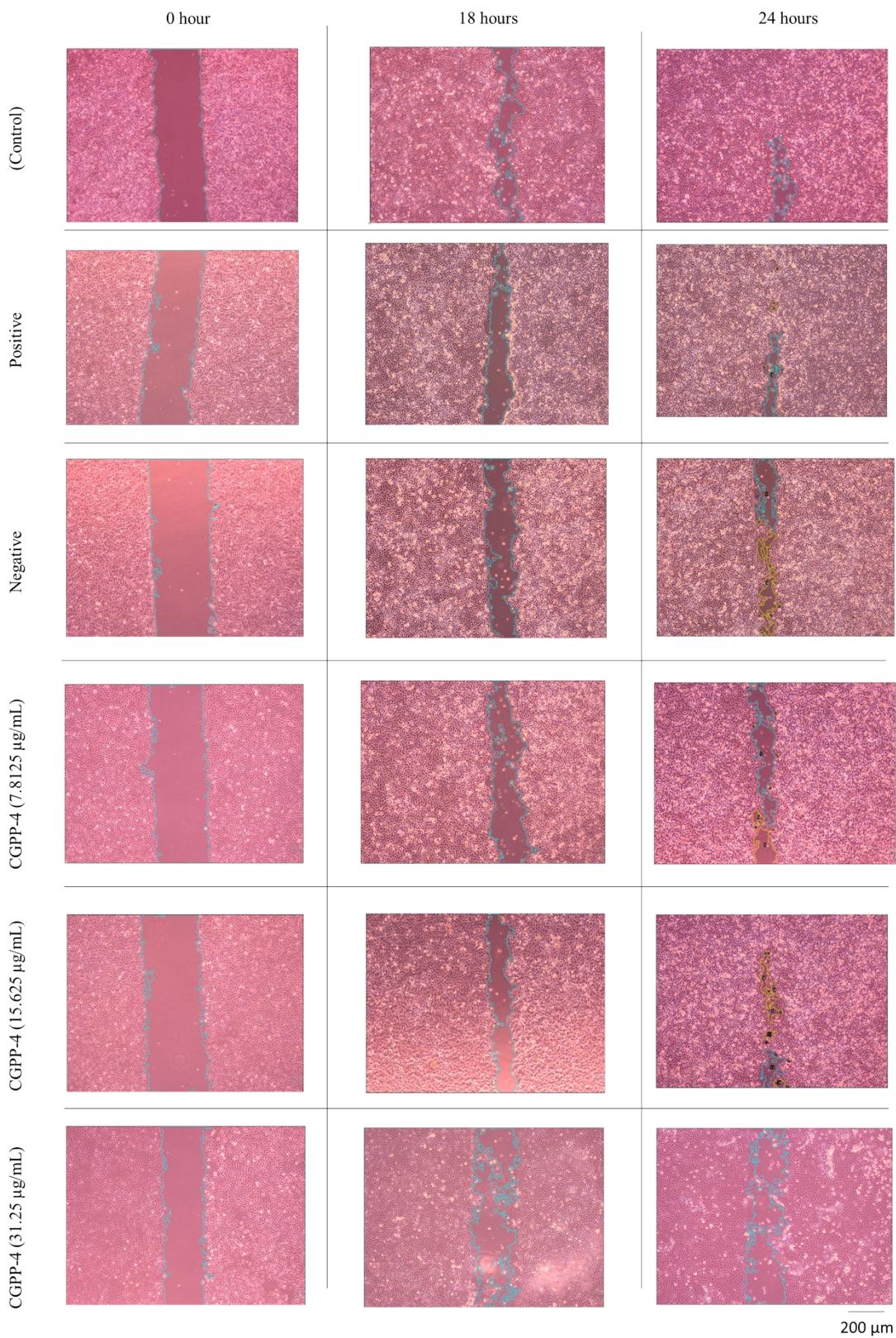
The cellular morphology of cells captured from optical microscope after a 72-Hours incubation treatment with CGPP-4 hydrogels.

blank	positive control
	
7.8125 mg/mL	15.625 mg/mL
	
31.25 mg/mL	62.5 mg/mL
	
125.0 mg/mL	250.0 mg/mL
	



Supplementary 7

The cellular morphology of keratinocytes tissues underwent healing process captured from optical microscope after at 0, 18 and 24-Hour incubation treatment with CGPP-4 hydrogels.



200 μ m

The cellular morphology of keratinocytes tissues underwent healing process captured from optical microscope after at 0, 18 and 24-Hour incubation treatment with CGPP-4-loaded curcumin hydrogels.

