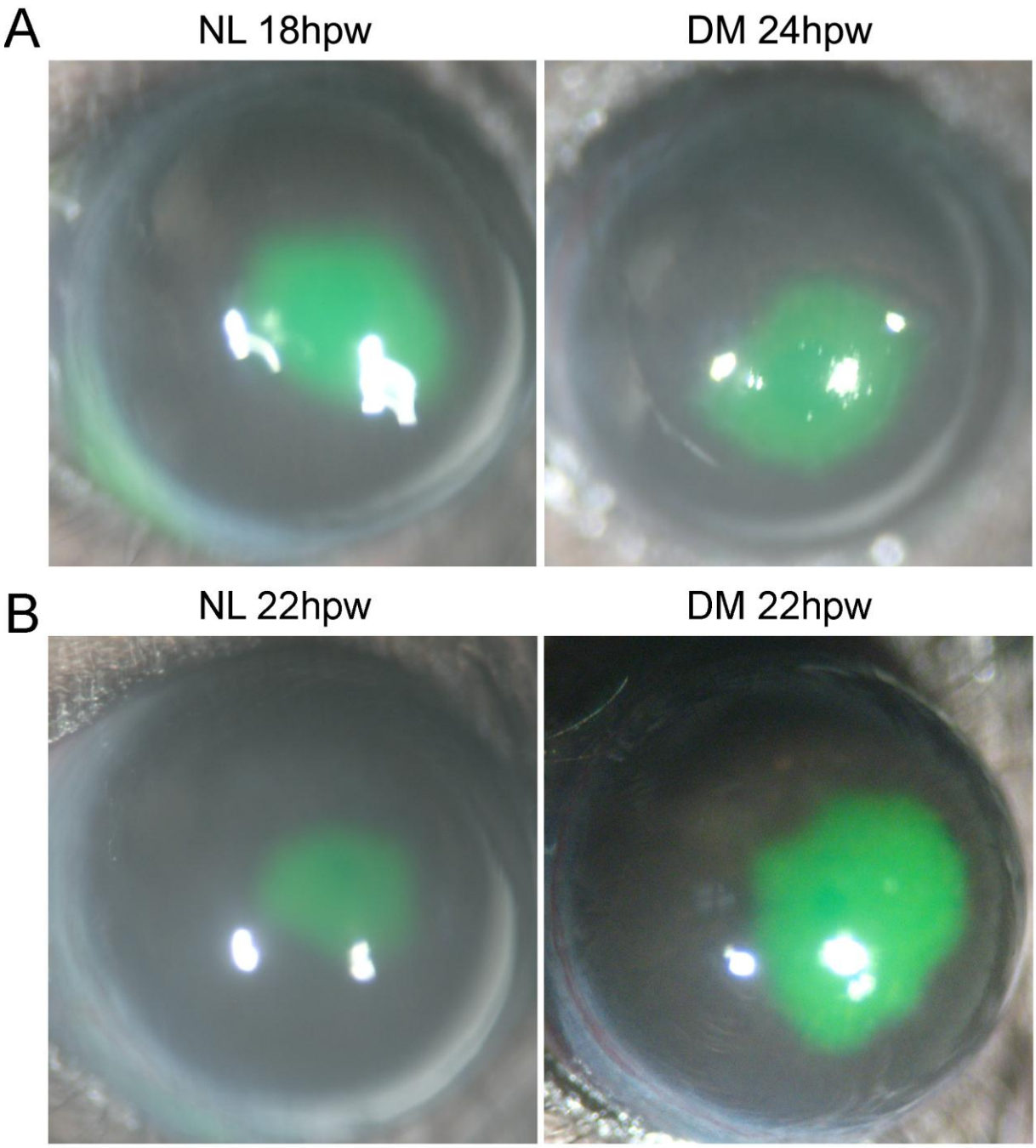
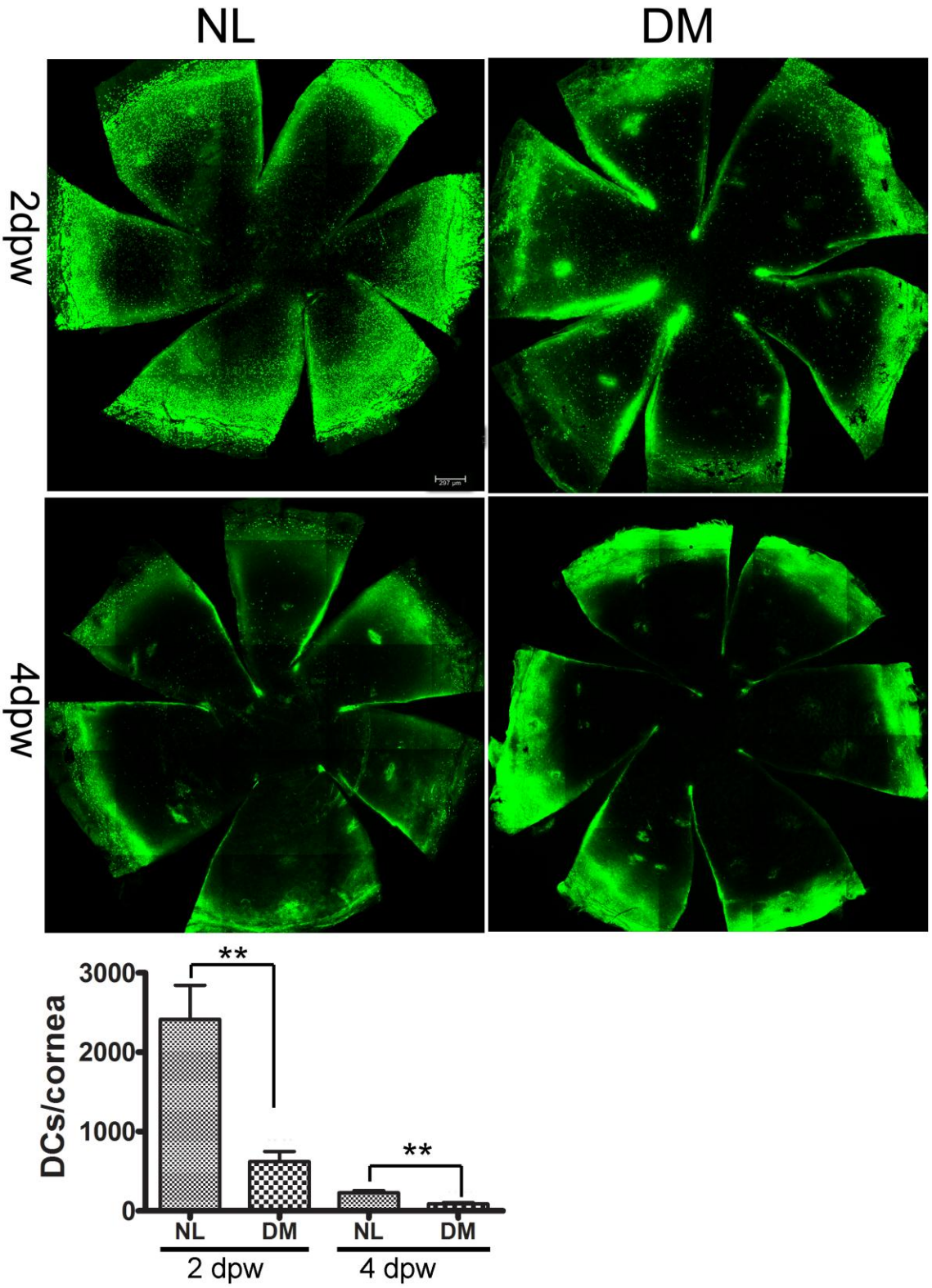
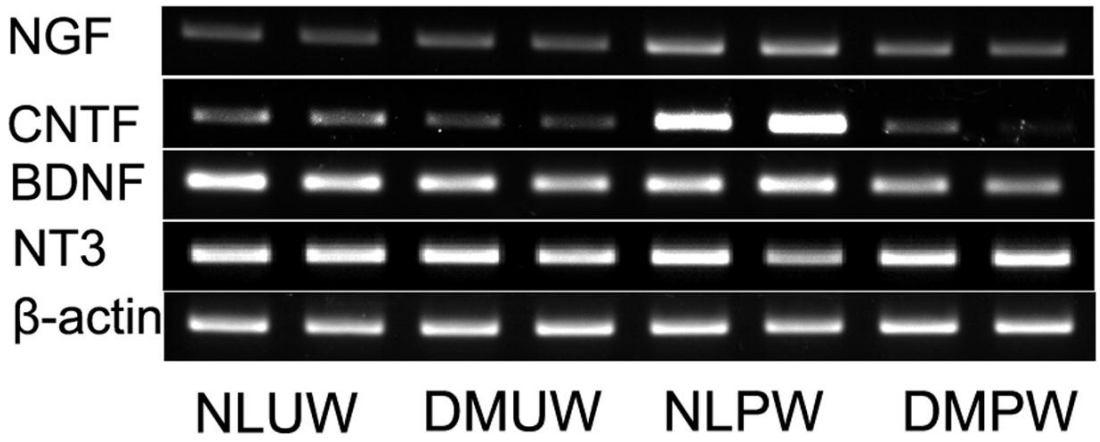
sFigure 1. The wound size at different time point in NL and DM mouse corneas A 2 mm wound was made at the center of the cornea and allowed to heal for 18 ,24(A) or 22 h(B). Remaining wound stained with fluorescence were photographed.



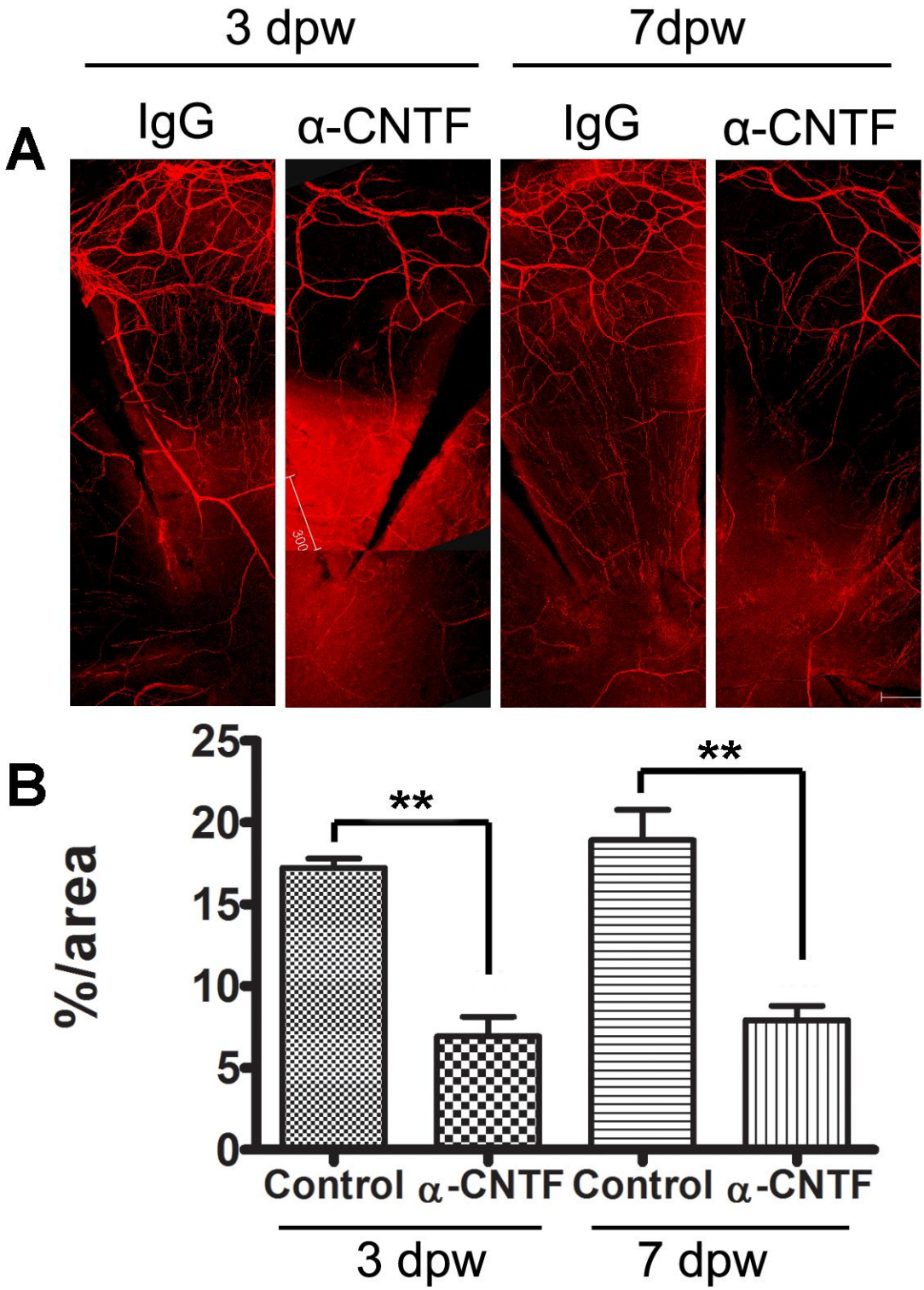
sFigure 2. Quantitation of DCs in healing normal and diabetic mouse corneas. The corneas were wounded and allowed to heal for 2 and 4 days. (A)The wounded corneas were stained with CD11c antibodies and the whole corneal images were generated as described as in Figure 3. (B) CD11c positive cells were quantitated using Image J's particle counting function. The results were presented as the average numbers of CD11c positive cells (particles) per cornea, n=3, *p<0.01, **p<0.01, (unpaired student t test). Two independent experiments were performed.


NL
DM
2dpw
4dpw
**
**
3000
2000
1000
0
DCs/cornea
NL
DM
NL
DM
2 dpw
4 dpw

sFigure 3. Neurotrophin expression in the normal and diabetic corneas with or without epithelium debridement. Both NL and DM corneas were wounded as described in Figure 1. UW and healing corneas (22 hpw) were collected and processed for regular PCR on agarose gel to determine basal and wound-induced expressions of neurotrophins with β-actin as the internal control.



sFigure 4. Effects of CNTF neutralizing on sensory nerve re-innervation in normal mouse corneas at 3 and 7 days post wound. (A) NL corneas were subconjunctivally injected with CNTF neutralizing antibody or IgG as the control 4 h prior and every 2 days post to epithelial debridement. A 2 mm wound was made at the center of the cornea and allowed to heal for 3 and 7 days. **(B)** Regeneration of sensory nerve endings was assessed by WMCM at day 3 and 7 days pw with tubulin III staining and the micrographs were taken near the limbal region. Note, the lack of sensory nerve endings in CNTF neutralizing antibody treated corneas. (B) Corneal innervation was quantified as percent threshold area positive for β-tubulin III staining in representative confocal images as shown in A. The results are representative of two independent experiments (N=5 each) and indicated *p* values were generated using one-way ANOVA with Bonferroni post-test, ** $p<0.01$.


3 dpw
7dpw
A
IgG
α-CNTF
IgG
α-CNTF
300
B
%/area
25
20
15
10
5
0
**
**
Control
α-CNTF
Control
α-CNTF
3 dpw
7 dpw

sFigure 5. Confocal microscopy of corneal whole-mount showing depletion of DCs in CD11c-DTR mice. CD11c-DTR mice were injected with 5 ng DT in 5 µl PBS subconjunctivally, with PBS alone as the control. A 2 mm wound was made at the center of the cornea after DT injections for 24 hours. Thecorneas were excised and stained with CD11c antibody at 24 h post wound, and examined with Confocal microscopy for the cornea. The figure is a representative of 4 corneas (2 mice) per condition.