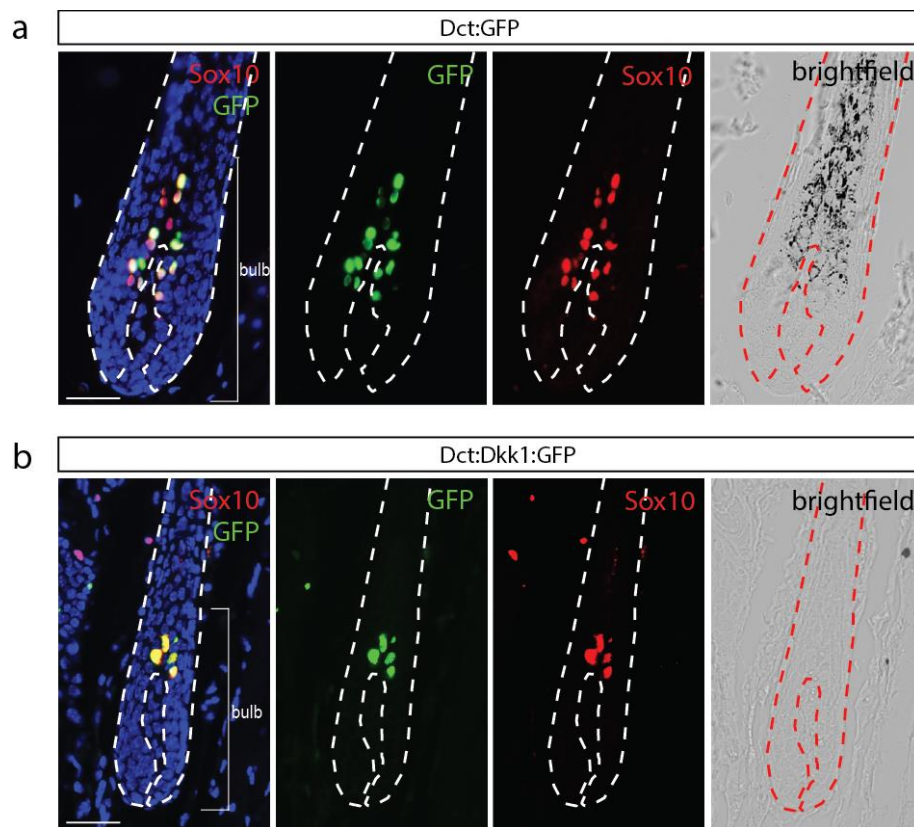
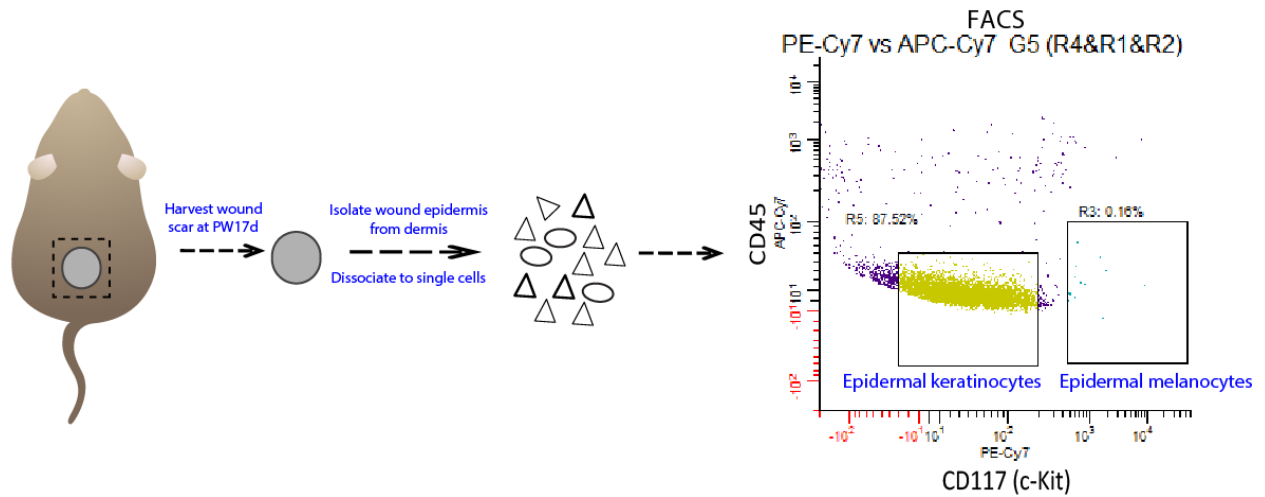


## Supplementary Figures



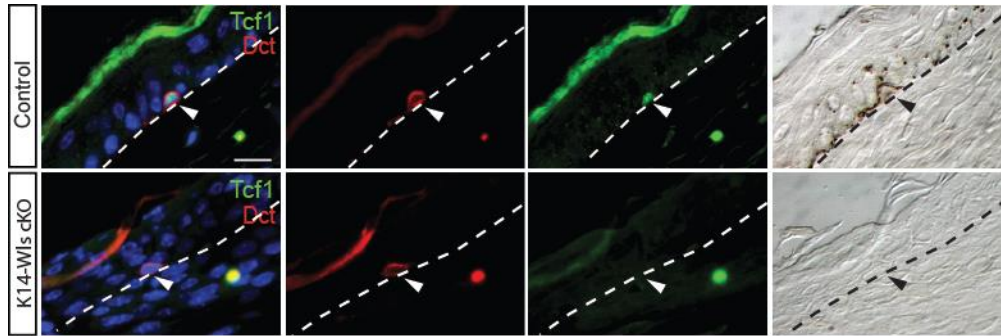
**Supplementary Figure 1. Dkk1 over-expression does not affect Sox10 expression in bulb melanocytes, related to Figure 1.**

(a-b) *Dct-rtTA; tetO-Dkk1; tetO-H2B-GFP* (Dct:Dkk1:GFP) and *Dct-rtTA; tetO-H2B-GFP* (Dct:GFP) control mice were treated with doxycycline starting from 3 weeks old. They were depilated at 7 weeks old to induce hair regeneration. Tissues were harvested at P12d (12 days after depilation) when hair follicles are at Anagen VI with pigment-producing differentiated melanocytes in the bulb. Immunofluorescence of Dct and Sox10 on paraffin tissue section and corresponding brightfield images of indicated genotypes at P12d. Dashed lines outline the boundary of epithelium and dermis. Scale bar: 25um.



**Supplementary Figure 2. Isolation of epidermal melanocytes and keratinocytes from wound epidermis,** related to Figure 3.

Schematic illustration of the isolation of epidermal melanocytes and keratinocytes from wound epidermis. See details in Materials and Methods.



**Supplementary Figure 3. Epithelial Wnt ligands are required for Tcf1 expression in epidermal melanocytes,** related to Figure 3.

*K14-CreER; Wls fl/fl* (K14-Wls cKO) and control littermates were wounded and immediately treated with TAM for 7 days. Wound tissues were harvested at 21 days post wounding. Immunofluorescence of Dct and Tcf1 on paraffin tissue section and corresponding brightfield images of indicated genotypes. Dashed lines outline the boundary of epithelium and dermis. Arrowheads point to epidermal melanocytes. Scale bar: 25um.

**Supplementary Table 1. Primer List, Related to the Materials and Methods**

Molecular probes for QPCR	Assay primer ID (Applied Biosystems)
Wnt 1	Mm01300555_gf
Wnt 2	Mm00470018_m1
Wnt 2b	Mm00437330_m1
Wnt 3	Mm00437336_m1
Wnt 3a	Mm03053669_s1
Wnt 4	Mm01194003_m1
Wnt 5a	Mm00437347_m1
Wnt 5b	Mm01183986_m1
Wnt 7a	Mm00437354_m1
Wnt 7b	Mm01301717_m1
Wnt 8a	Mm00436822_m1
Wnt 8b	Mm00442107_m1
Wnt 9a	Mm00460518_m1
Wnt 9b	Mm00457102_m1
Wnt 10a	Mm00437325_m1
Wnt 10b	Mm00442104_m1
Wnt 16	Mm00446420_m1