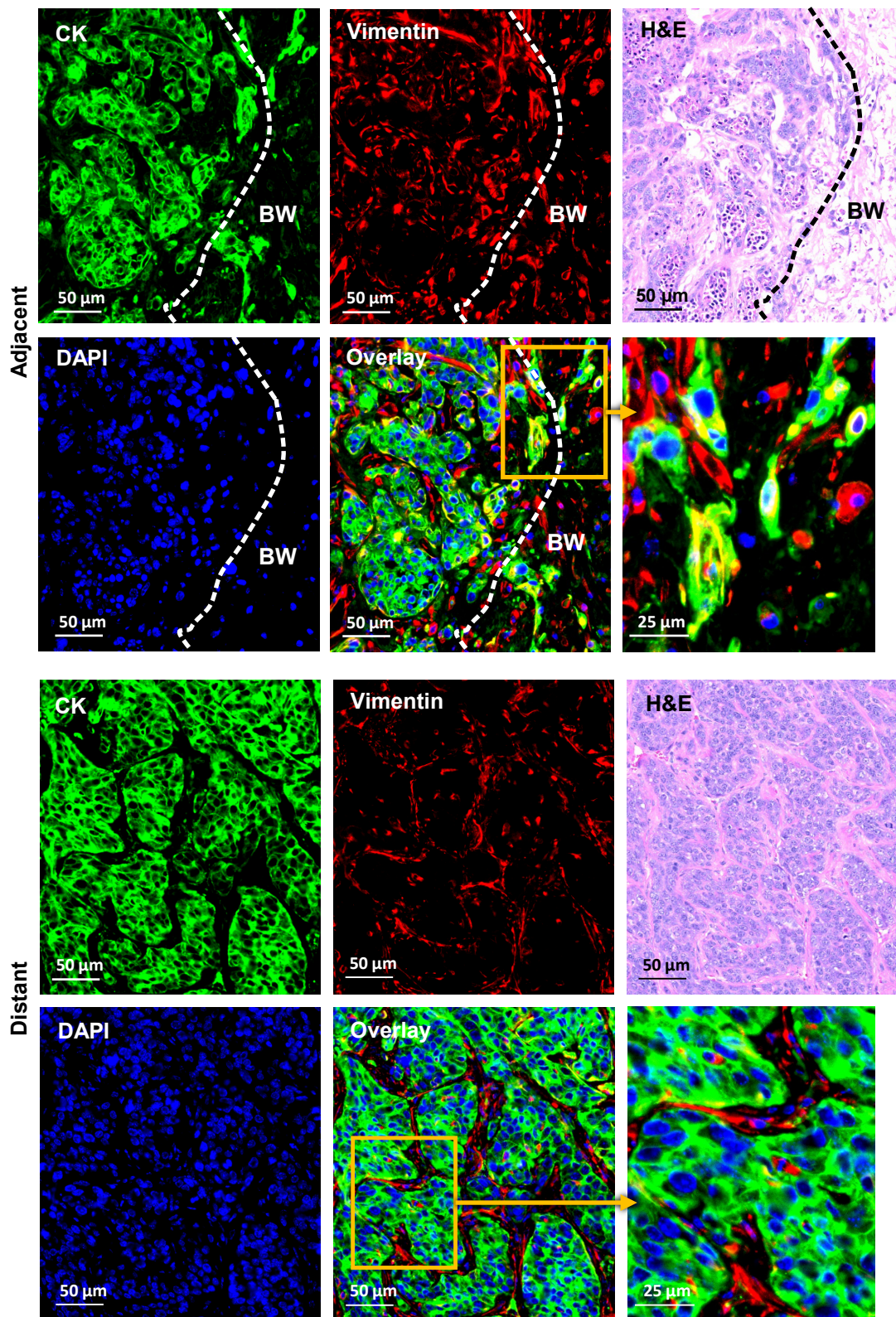


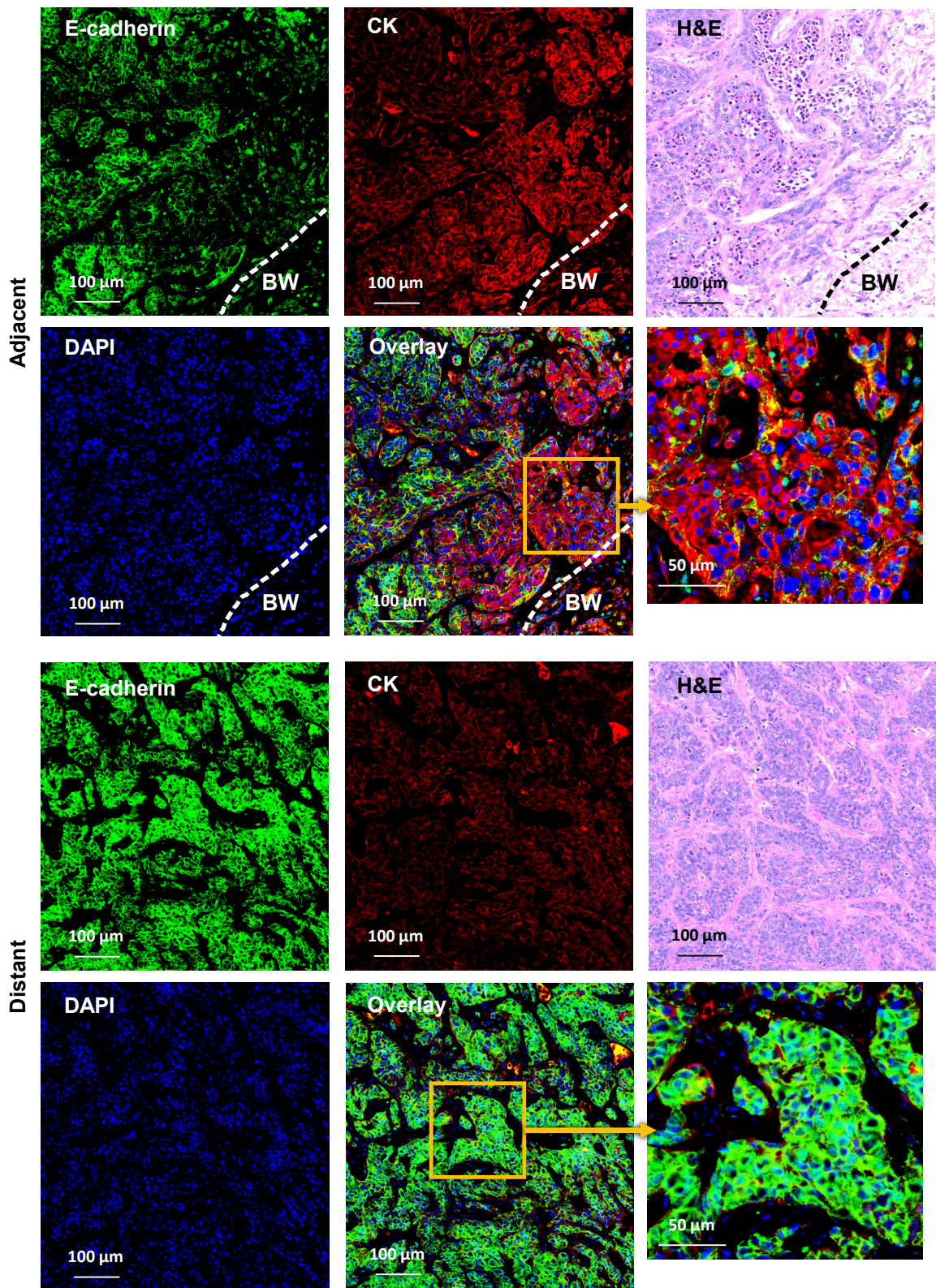
Data S1



Data S1. Gain of vimentin expression in cancer cells adjacent to biopsy wound in Py230 tumors, related to Figure 2D.

A single-color image of 15-day post-biopsy Py230 tumors, adjacent to (top) and distant from (bottom) the biopsy wound, corresponding to Fig. 2D, were immunofluorescently stained for vimentin (red), CK (green), and counterstained with DAPI (blue). The H&E image shows the corresponding area; white and black dotted lines indicates the border of biopsy wound (BW). The orange square shows the corresponding high-power images.

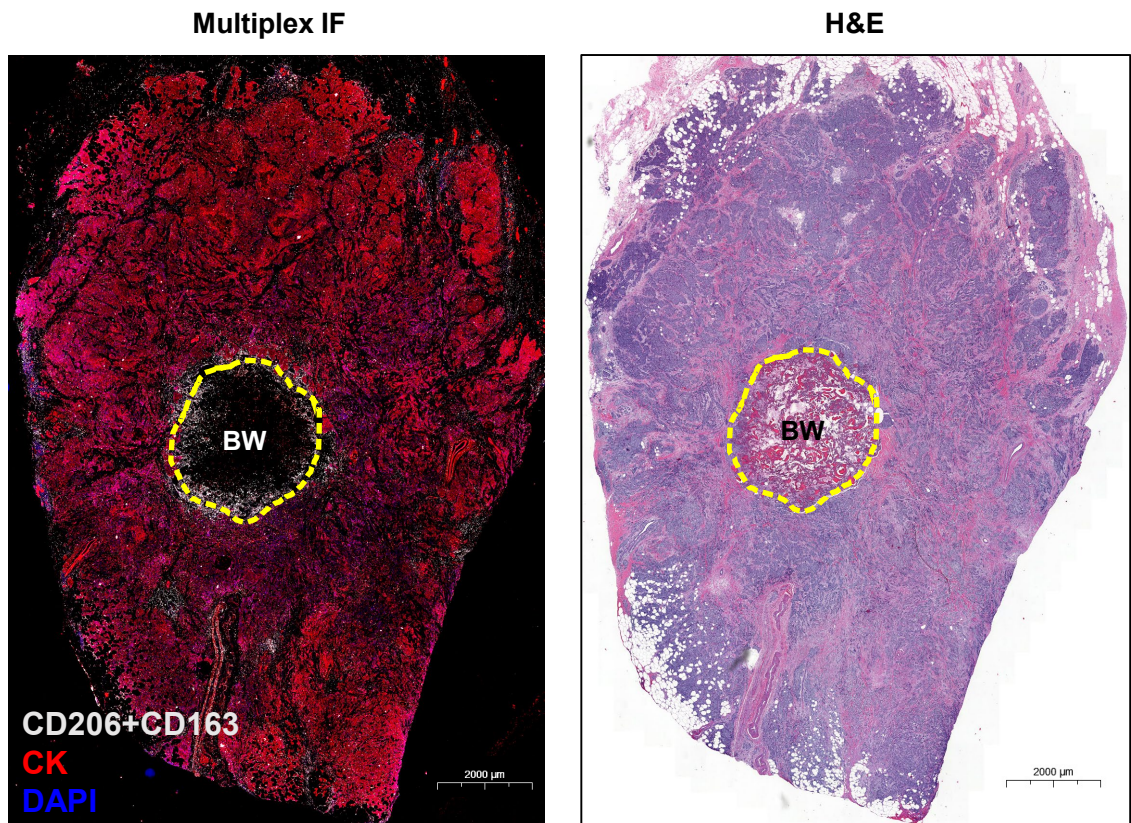
Data S2



Data S2. Loss of E-cadherin expression in cancer cells adjacent to biopsy wound in Py230 tumors, related to Figure 2D.

A single-color image of 15-day post-biopsy Py230 tumors adjacent to (top) and distant from (bottom) the biopsy wound, corresponding to Fig. 2D, immunofluorescently stained for CK (red), E-cadherin (green), and counterstained with DAPI (blue). The H&E image shows the corresponding area; white and black dotted lines indicates the border of biopsy wound (BW). The orange square shows the corresponding high-power images.

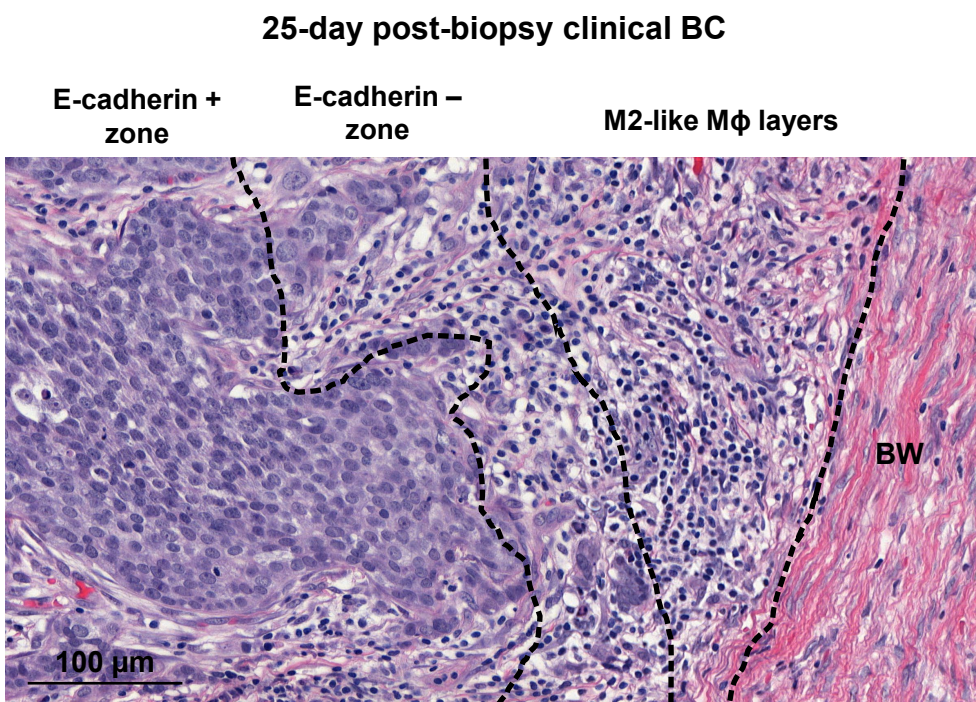
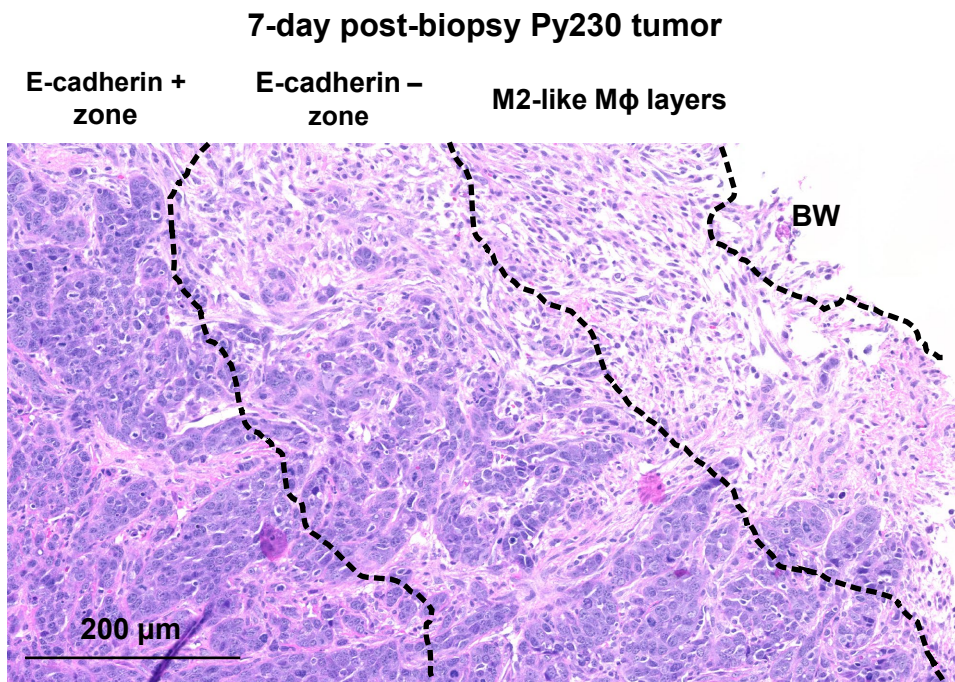
Data S3



Data S3. M2 ϕ accumulation around the biopsy wound in both human breast tumors, related to Figure 3A.

Scanned images of the whole-mount section of 20-day post-biopsy clinical BC and H&E corresponding to Fig. 3A. The slides were immunofluorescently stained for CK (red), CD163+CD206 M2-like M ϕ (white) and counterstained with DAPI (blue). The center hollow circled by a yellow dotted line indicates the border of the biopsy wound. BW: biopsy wound.

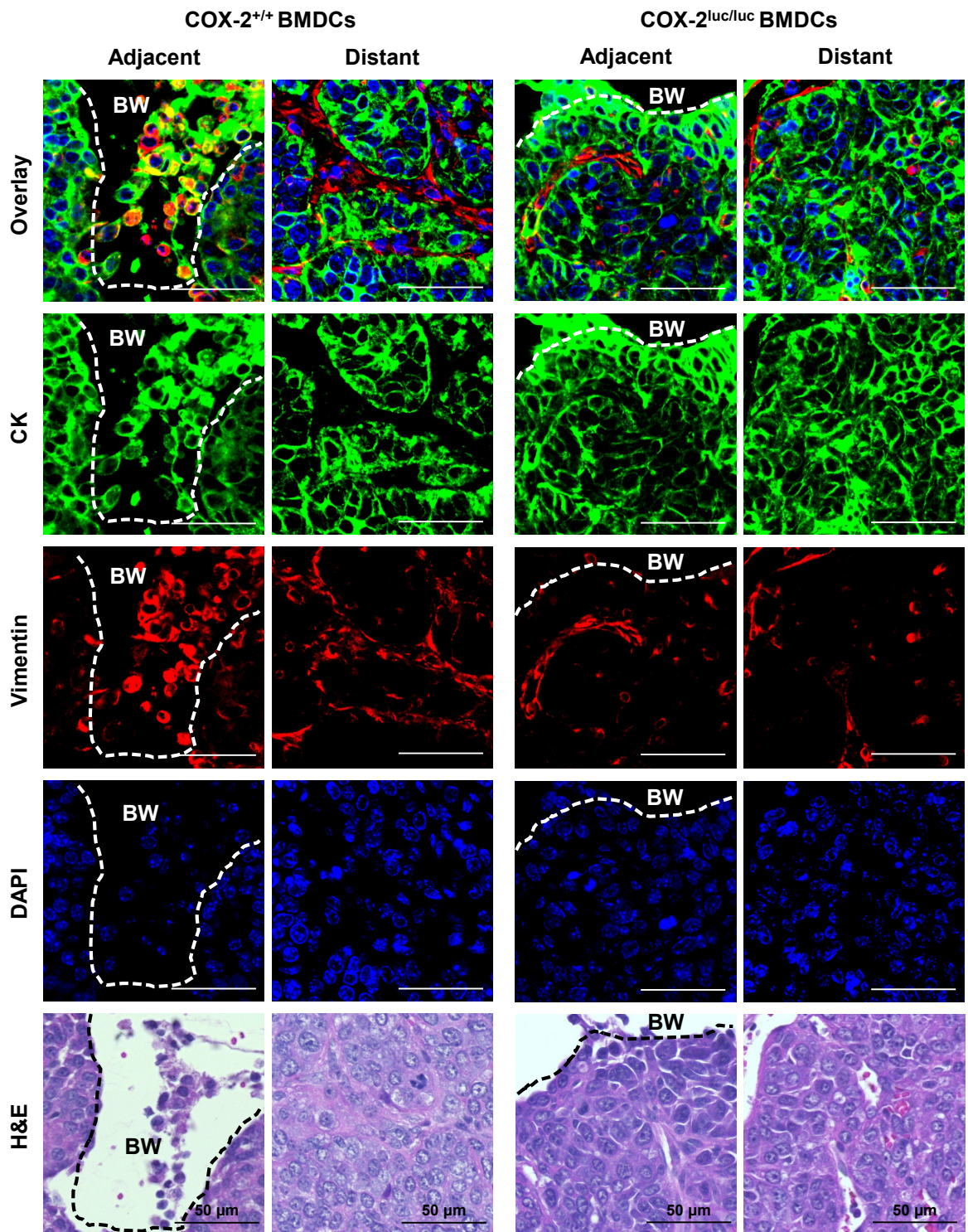
Data S4



Data S4. H&E images of 7-day post-biopsy Py230 tumor and 25-day post-biopsy clinical breast cancer, related to Figure 3G and 3H.

H&E images of 7-day post-biopsy Py230 tumor and 25-day post-biopsy clinical breast cancer. The black dotted lines indicate distinct EMT zones.

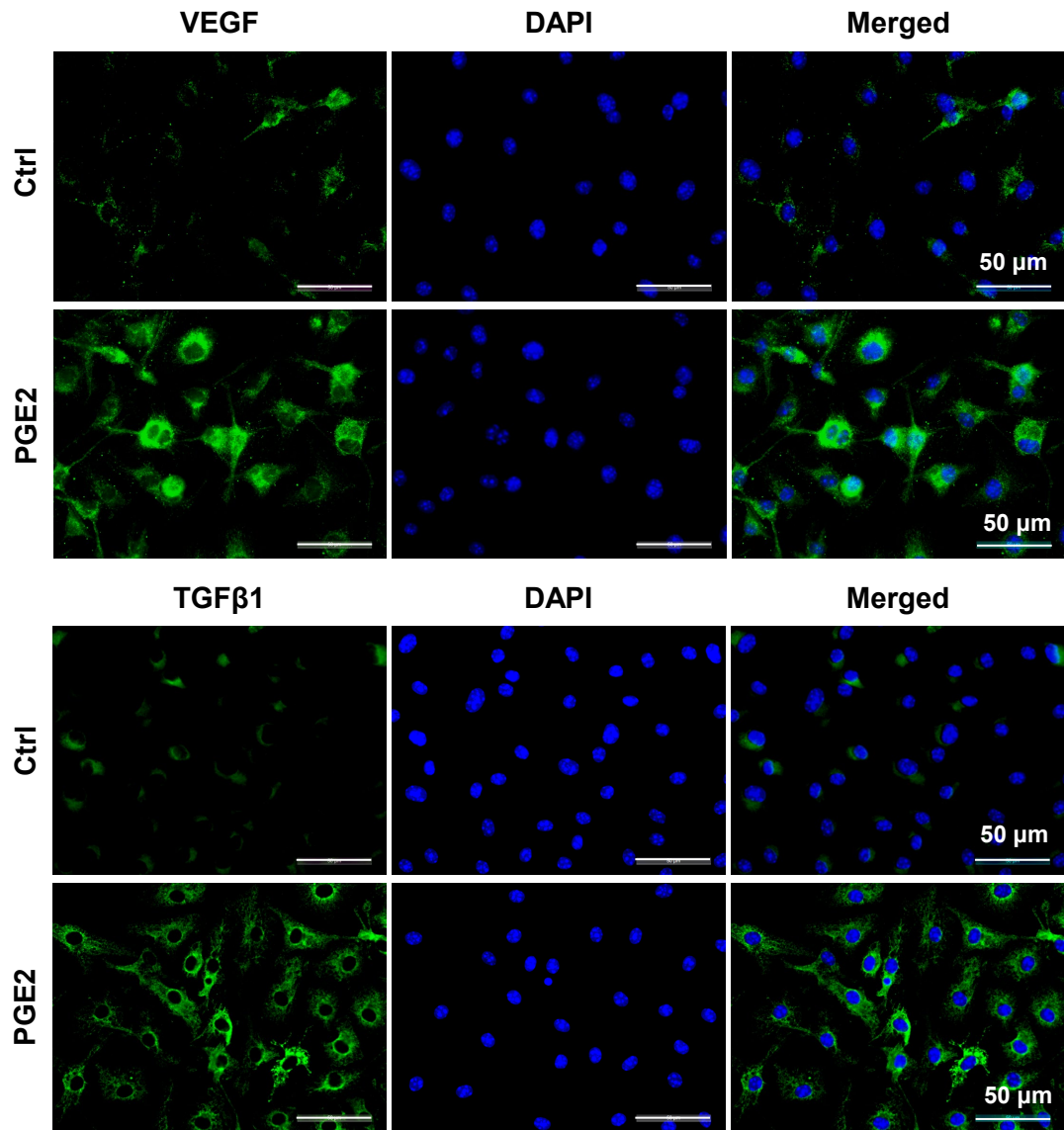
Data S5



Data S5. Suppression of biopsy-induced EMT and angiogenesis in COX-2^{luc/luc} recipients, related to Figure 4I.

Overlay, single-color, and H&E images of 15-day post-biopsy Py230 tumors, adjacent or distant from biopsy wound, derived from *Cox-2*^{+/+} BMDCs or *Cox-2*^{luc/luc} BMDCs recipients corresponding to Figure 4I. Tumors were immunofluorescently stained for CK (green), vimentin (red), and counterstained with DAPI (blue). A white and black dotted line indicates the border the biopsy wound. BW: biopsy wound.

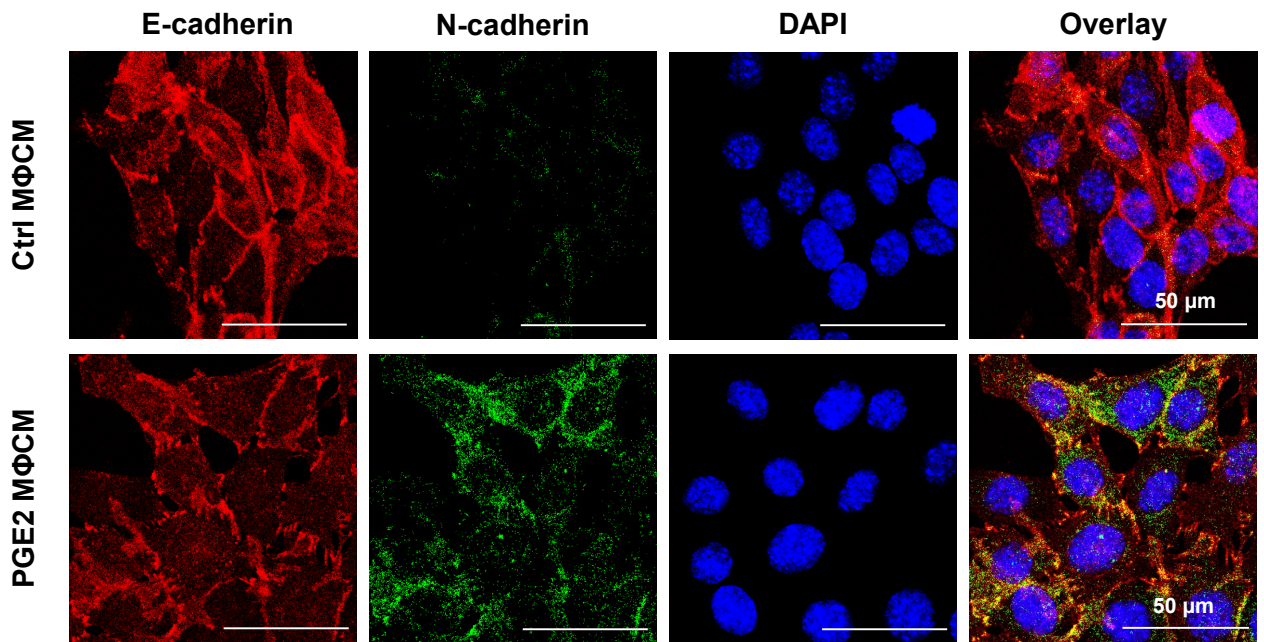
Data S6



Data S6. Altered expression of VEGF and TGF-β1 in PGE₂-skewed M2-like Mφ, related to Figure 5D.

Single-color images of primary Mφ treated with or without PGE₂ and immunofluorescently stained (green) for VEGF (top) or TGF-β1 (bottom) and counterstained with DAPI (blue). The images were taken at the final magnification of 40x.

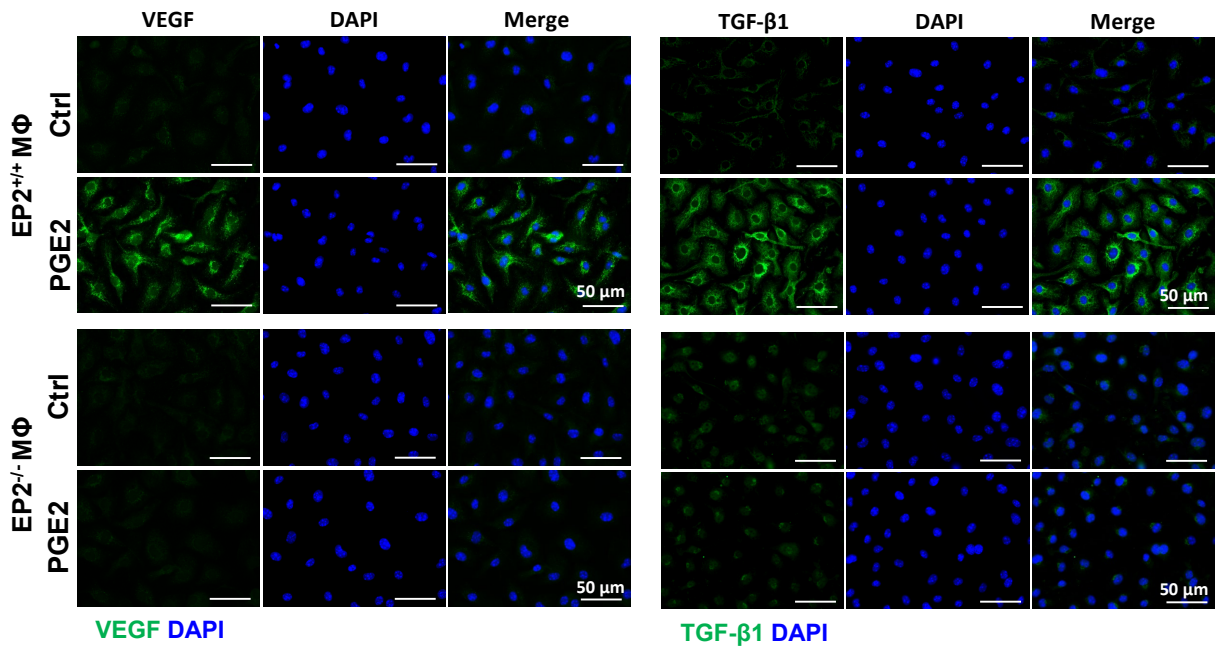
Data S7



Data S7. Altered expression of E-cadherin and N-cadherin in Py230 cells treated with CM of PGE₂-treated M ϕ , related to Figure 5G.

Overlay and single-color images of Py230 cells treated with CMs of PGE₂-treated M ϕ were immunofluorescently stained for E-cadherin (red), N-cadherin (green) and counterstained with DAPI (blue). The images were taken at the final magnification of 40x.

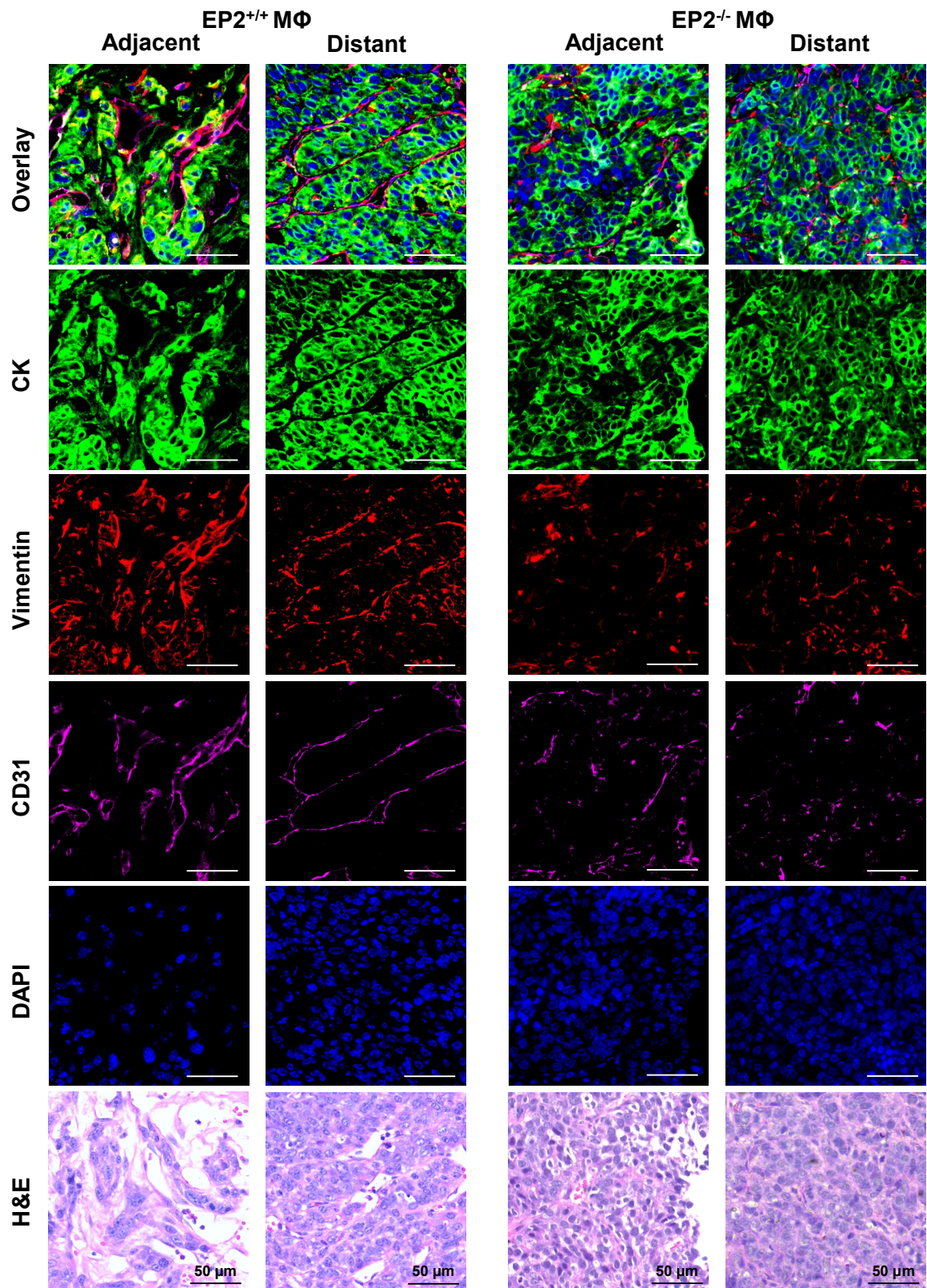
Data S8



Data S8. Induced expression of VEGF and TGF-β1 from M2φ skewed by PGE2, related to Figure 6E.

Single-color images of primary *Ep2^{-/-}* Mφ and *Ep2^{+/+}* Mφ treated with or without PGE₂ and immunofluorescently stained (green) for VEGF (left) or TGF-β1 (right) and counterstained with DAPI (blue). The images were taken at the final magnification of 40x.

Data S9



Data S9. Suppression of biopsy-induced EMT and angiogenesis in EP2^{-/-} recipients, related to Figure 6H.

Overlay and single-color images of 15-day post-biopsy Py230 tumors, adjacent or distant to biopsy site, derived from *Ep2^{-/-}* MΦ and *Ep2^{+/+}* MΦ recipients, corresponding to Figure 6I, immunofluorescently stained for CK (green), vimentin (red), CD31 (pink), and counterstained with DAPI (blue). H&E images indicate the corresponding areas.