**SUPPLEMENTARY MATERIALS AND METHODS**

**Treatment regimens**

Male *Foxp3DTR*x129 F1 hosts were injected at 3 and 4 weeks following orthotopic tumor implantation with DT (Sigma; 50 ng/g and 25 ng/g i.p., respectively) or PBS, or at 1 and 2 weeks following tumor injection in the experimental metastasis model. *Mgl2DTR* hosts were treated with DT (10 ng/g i.p.) or PBS every 2-3 days starting at the indicated time points following tumor injection. Antibodies and their isotype controls were obtained from Bioxcell and injected (10 mg/kg i.p.) every 3 (αPD-L2; TY25) or 5 days (αCD8; YTS 169.4) starting at the indicated time points.

**Tissue processing**

Following transcardial perfusion with PBS, livers and tumors were removed, finely minced, enzymatically digested (RPMI, 2% FCS, 1 mg/mL collagenase IV, 0.1 mg/mL DNase I; 30 min, 37°C), and sequentially strained through 100 μm and 40 μm filters. Liver NPC for flow cytometry or further cell isolation were obtained after separation on a 20% iodixanol gradient (OptiPrep, Axis-Shield). Where indicated, liver NPC were depleted of CD11c+ or CD11b+ cells using MACS MicroBeads (Miltenyi Biotec). Cell suspensions from spleen, lymph node, and BM were prepared by mechanical dissociation and sequential filtering. Tissues for immunofluorescence were embedded in OCT (Tissue-Tek) and frozen over liquid nitrogen.

**Immunofluorescence**

Cryosections were fixed with 2% formaldehyde in PBS for 10 min and blocked with PBS containing 0.1% Triton X-100 (Sigma), 1% bovine serum albumin (Jackson ImmunoResearch), and 10% goat serum (DAKO). Purified antibody for mouse p53 (CM5) was obtained from Leica; mouse/human Cytokeratin 19 (ab15463) from Abcam; and mouse CD11c (N418), Foxp3 (FJK-16s), Gr1 (RB6-8C5), MHC-II (M5/114.15.2), PD-L1 (10F.9G2), and PD-L2 (TY25) as well as human CD11c (3.9) and HLA-DR (L243) from BioLegend and eBioscience. Primary antibodies were applied for 1 hr at RT or overnight at 4°C and detected with Alexa Fluor- and DyLight-conjugated secondary antibodies (Life Technologies and BioLegend, respectively). Tyramide signal amplification (Life Technologies) was used to stain PD-L1 and PD-L2, requiring methanol fixation (10 min, -20°C) and peroxidase blocking (0.3% H2O2 in PBS; 10 min, RT) prior to staining. Images were acquired using a Leica TCS SPE confocal microscope and processed with ImageJ.

**Cytokine analysis**

Myeloid subpopulations from the liver of tumor-bearing mice were sorted (BD FACSAria II) and cultured at equal cell densities and in the absence of additional stimuli for 24 hr before supernatant analysis by Proteome Profiler Cytokine Antibody Array (R&D Systems). Pooled supernatants (n=5 mice) were processed in parallel according to the manufacturer’s instructions. Background-corrected integrated density measurements for duplicate spots were averaged and are presented as signal intensity values. For analyses of 3T3 and tumor cell lines, equal numbers of cells were cultured for 24 hr and supernatants were analyzed by ELISA for GM-CSF (eBioscience) or by Luminex multiplex assays by the Stanford Human Immune Monitoring Center.

**Monocyte culture and transfer**

BM Mo from naïve C57BL/6J and B6129SF1/J were routinely isolated by immunomagnetic negative selection (EasySep Mouse Monocyte Enrichment Kit, Stemcell Technologies). For initial cell transfer experiments, BM Mo were isolated from CD45.1x129 F1 mice and CD11b+Ly6C+Ly6G-CD115+ cells were further purified by FACS. Subsequent studies were performed with BM Mo isolated by immunomagnetic selection from CD45.1x129 F1 or pure C57BL/6J CD45.1 mice as indicated, and yielded similar results. 1-2x106 cells were i.v. injected into 3.5 wk pancreatic tumor-bearing mice and liver NPC were analyzed by flow cytometry after 5 d. For in vitro experiments, Mo were cultured in the presence of 50% control complete medium or medium conditioned for 24 hr by confluent cultures of LMP or 3T3 cells. Neutralizing GM-CSF (MP1-22E9, BioLegend) or isotype control antibodies were preincubated (20 µg/mL) with LMP TCM where indicated. Cells were analyzed by flow cytometry after culturing for 18-24 hr.

**BM chimeras**

Naïve B6129SF1/J mice were lethally irradiated (2 x 5 Gy) and i.v. injected with 5x106 BM cells from histocompatible WT (*Csf2rb*+/+) or *Csf2rb*-/- C57BL/6 mice. Mice were provided TMS antibiotic-supplemented chow for 1 wk before and 3 wk following irradiation, and were allowed to recover for 8 wk before further experimentation.

**DC-T cell coculture**

DC from normal or micrometastatic liver were routinely isolated using CD11c MicroBeads (Miltenyi Biotec). Total T cells or bulk CD4 T cells were isolated from the spleens of naïve or tumor-bearing mice by negative selection (EasySep Mouse T Cell Isolation Kits, Stemcell Technologies) and labeled with CFSE (Life Technologies) for 10 min at 37°C. DC and T cells were cocultured (1:2 or 1:4) for 3-4 d prior to flow cytometric analysis. Murine IL-2 (20 ng/mL, PeproTech) and blocking antibodies (20 µg/mL, BioLegend and eBioscience) were added where indicated.

**DC footpad injection**

DC were isolated from micrometastatic liver by MACS and 2x106 cells or PBS were injected into the footpads of naïve syngeneic mice. After 3 d, draining and non-draining (PBS) popliteal lymph nodes were separately pooled, processed, and analyzed by flow cytometry.

**Analysis of patient specimens**

Tissue samples from patients undergoing surgery at Stanford Hospital and Clinics were obtained through protocols approved by the Stanford Institutional Review Board following informed consent. Specimens used for staining were flash-frozen and processed for immunofluorescence as described above. For gene expression analysis, RSEM-normalized values from the TCGA PDAC dataset (n=179) were downloaded through cBioPortal and analyzed to obtain Spearman correlation coefficients for the indicated gene pairs.

**Antibodies**

The following antibodies for flow cytometry were obtained from Biolegend, eBioscience, or BD Biosciences: CD3 (17A2), CD4 (GK1.5, RM4-5), CD8α (53.6.7), CD11b (M1/70), CD11c (N418), CD24 (M1/69), CD45 (30-F11), CD45.1 (A20), CD45.2 (104), CD64 (X54-5/7.1), CD69 (H1.2F3), CD80 (16-10A1), CD86 (GL1), CD90.2 (30-H12, 53-2.1), CD103 (2E7), CD115 (AFS98), F4/80 (BM8), Foxp3 (FJK-16s), Gr1 (RB6-8C5), Granzyme B (NGZB), Helios (22F6), ICOSL (HK5.3), Ki67 (SolA15), Ly6C (HK1.4), Ly6G (1A8), MGL2 (URA-1), MHC-II (M5/114.15.2, AF6-120.1), NK1.1 (PK136), PD-L1 (10F.9G2), PD-L2 (TY25).