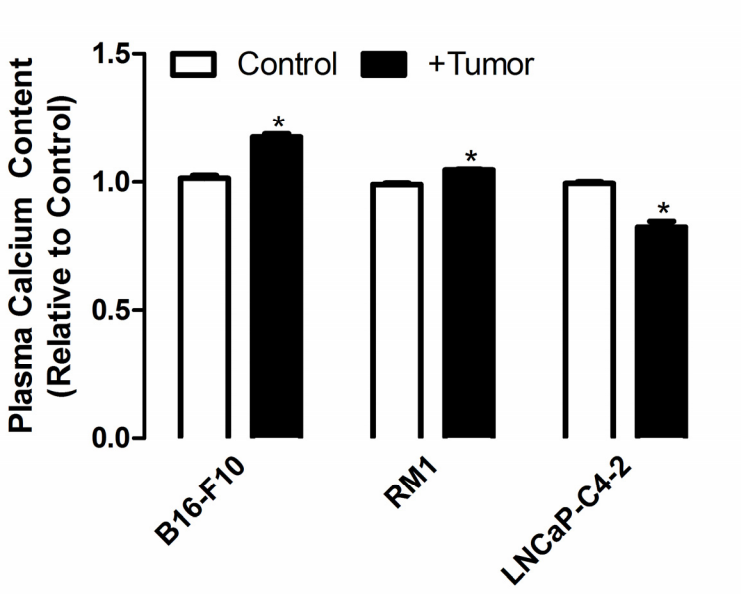
SUPPLEMENTARY MATERIAL

	C57BL/6	RM1	B16-F10	NOD/SCID	LNCaP-C4-2
BV/TV	0.081±0.003	0.148±0.013 $p<0.005$	0.124±0.002 $p<0.005$	0.064±0.007	0.094±0.010 $p=0.028$
Tb.Th (um)	45.85±0.139	50.34±0.396 $p<0.005$	50.23±0.390 $p<0.005$	47.88±0.917	51.09±0.824 $p=0.027$
Tb.Sp (um)	191.35±9.00	141.26±5.27 $p<0.005$	160.69±4.93 $p=0.038$	168.58±3.13	147.12±6.47 $p=0.020$
Tb.N (1/mm)	1.77±0.066	3.19±0.115 $p<0.005$	2.47±0.056 $p=0.005$	1.46±0.020	1.97±0.196 $p=0.031$
BSA (mm^2)	10.06±0.631	14.34±1.33 $p<0.005$	14.99±0.126 $p=0.006$	3.77±0.406	5.67±0.700 $p=0.028$

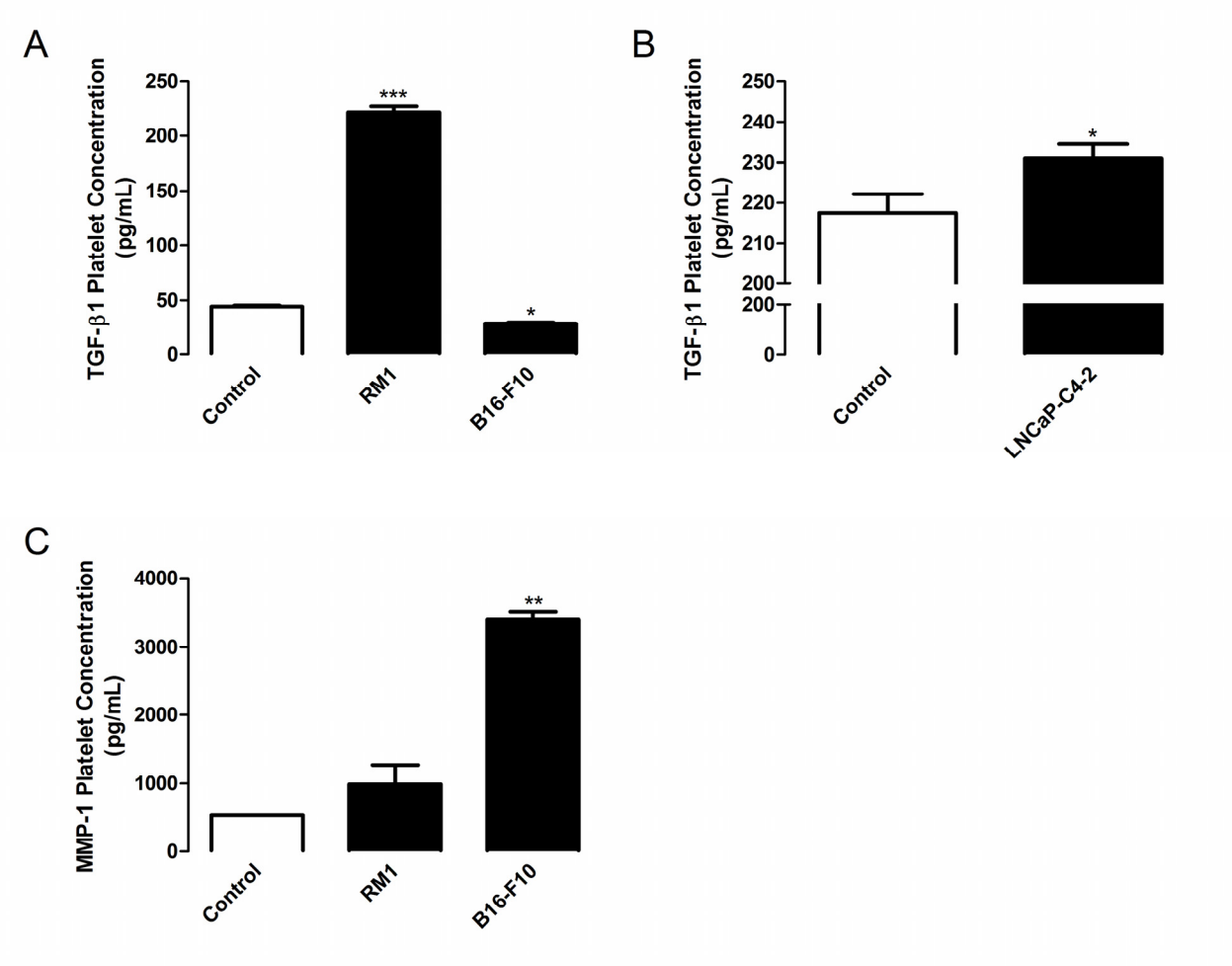
Supplementary Table 1. Bone Structural Indices at the Final Scan Time Point. Tumor cells were implanted subcutaneously into male mice: B16-F10 murine melanoma ($2x10^6$ cells in C57BL/6 mice, 9 wks of age), RM1 murine prostate cancer ($4x10^5$ cells in C57BL/6 mice, 9 wks of age), and LNCaP-C4-2 human prostate cancer ($4x10^5$ cells encapsulated in matrigel in NOD/SCID mice, 8 wks of age). Corresponding control mice were injected with PBS (for C57BL/6 mice) or matrigel (NOD/SCID mice). Tibial bones were scanned using microCT upon experimental termination *ex vivo*: 9 days (B16-F10), 12 days (RM1), or 19 days (LNCaP-C4-2) after tumor implantation. Bone morphometric changes were measured using a GE eXplore Locus MicroCT scanner with 360 X-ray projections collected at 1^o increments and projected images reconstructed into 3D volumes at 20μm resolution as previously described for bone volume: total volume ratio (BV/TV), bone surface area (BSA), average trabecular thickness (Tb.Th), average trabecular spacing (Tb.Sp) and average trabecular number (Tb.N). Values are represented as mean ± SEM (n=5). Statistics shown are vs. C57BL/6 or NOD/SCID control mice by paired Student's t test.

	Control	Tumor Alone	Tumor + Platelet Depletion	Tumor + Platelet Infusion
BV/TV	0.077±0.004	0.116±0.008 *p*=0.005	0.082±0.005 *p*=0.56	0.121±0.012 *p*=0.01
Tb.Th (um)	45.63±0.118	50.22±0.390 *p*<0.005	47.04±0.489 *p=0.02*	50.01±1.45 *p*=0.006
Tb.Sp (um)	191.35±8.99	159.29±1.42 *p*=0.02	183.04±2.24 *p*=0.35	165.05±2.57 *p*=0.02
Tb.N (1/mm)	1.69±0.089	2.41±0.067 *p*<0.005	1.73±0.117 *p*=0.79	2.45±0.181 *p*=0.009
BSA (mm^2)	8.87±1.29	14.25±0.744 *p*=0.02	10.27±0.759 *p*=0.413	14.38±0.767 *p*=0.01

Supplementary Table 2. Bone Structural Indices at the Final Scan Time Point. B16-F10 ($2x10^6$) tumor cells were implanted subcutaneously in 9 wk old C57BL/6 mice. Control mice were injected with PBS. After tumor implantation, mice were treated with rat anti-mouse GPIbα (PLT Depletion) or rat IgG (Tumor Alone and Control) (2 μg/g body weight, each, Emfret Analytics, Eibelstadt, Germany) by tail vein injection. Injections were repeated every 3 days. Platelets (~$3x10^9$) from two donor mice in resuspension buffer were injected into a single recipient WT mouse just prior to B16-F10 implantation via the tail vein. Platelet infusion was repeated every 5 days until experimental termination. Tibial bones were scanned using microCT 9 days after tumor implantation *ex vivo*. Bone morphometric changes were measured using a GE eXplore Locus MicroCT scanner with 360 X-ray projections collected at 1^o increments and projected images reconstructed into 3D volumes at 20μm resolution for bone volume: total volume ratio (BV/TV), bone surface area (BSA), average trabecular thickness (Tb.Th), average trabecular spacing (Tb.Sp) and average trabecular number (Tb.N). Values are represented as mean ± SEM (*n*=4). Statistics shown are vs. control samples by paired Student's *t* test.



Supplemental Figure 1. Calcium levels in the plasma of mice bearing tumors. Plasma was isolated from control injected mice or mice bearing RM1, B16-F10 or LNCaP-C4-2 tumors upon experimental termination and subjected to a StanBio Total Calcium LiquiColor Procedure No. 0150 Assay (Boerne, TX) to measure the concentration of calcium represented as mean ± SEM (n=2-3). * $p<0.05$, * $p<0.01$, and *** $p<0.005$ vs. control by unpaired Student's t test.



Supplemental Figure 2. MMP-1 and TGF-β1 levels are increased in the platelets of mice bearing tumors. Platelet releasates were isolated from control injected mice or mice bearing RM1, B16-F10 or LNCaP-C4-2 tumors upon experimental termination (B16-F10: 9 days; RM1: 12 days; LNCaP-C4-2: 19 days) and subjected to (A and B) Invitrogen Multi-Species TGF-β1 ELISA (Camarillo, CA) or (C) MyBioSource Mouse MMP-1 ELISA (San Diego, CA) assays to measure the concentration of proteins represented as mean ± SEM (*n*=2-3) . * $p<0.05$, * $p<0.01$, and *** $p<0.005$ vs. control by unpaired Student's *t* test.