Supporting Information

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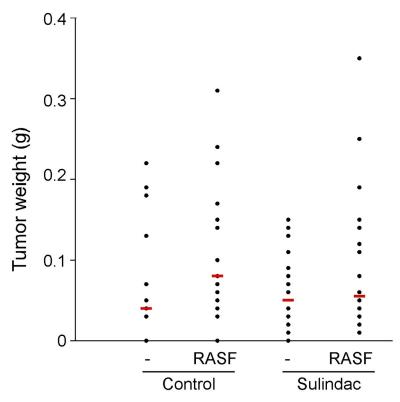


Fig. S1. The effect of a nonspecific COX inhibitor (sulindac) on the weight of MCFDCIS xenografts derived from cells injected alone (–) or coinjected with RASFs on control or sulindac-containing diet. Sulindac attenuated the tumor growth-stimulating effects of RASFs, but this was not statistically significant (P = 0.4).

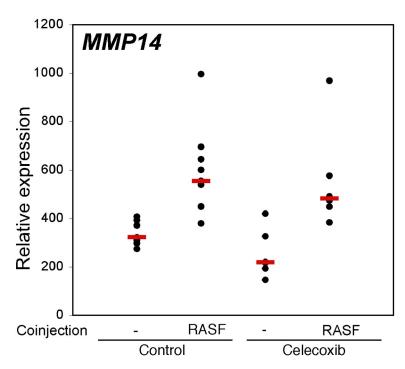
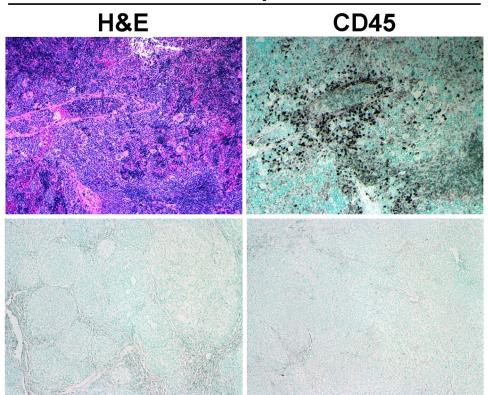


Fig. S2. The effect of celexocib on *MMP14* expression, measured by qRT-PCR analysis of human-specific *MMP14* gene expression in MCFDCIS xenografts in mice fed with control and celexocib-containing diet. The expression of MMP14 was increased due to coinjection with RASFs, but was not significantly decreased by celecoxib treatment relative to human-specific hypoxanthine phospho-ribosyl-transferase 1 (*HPRT1*) used as loading control.

Mouse spleen



MCFDCIS xenografts, CD45

Fig. S3. Analysis of the presence of leukocytes in xenografts. Shown is immunohistochemical analysis of CD45 pan-leukocyte antigen expression in MCFDCIS xenografts and in mouse spleen used as positive control. Essentially no CD45+ cells are detected in the xenografts, whereas a large fraction of cells are positive for CD45 in the spleen.

Array	1

	a	b	c	d	e	f	g	h	i		k		m	n
1	POS	POS	POS	POS	Blank	Angiogenin	BDNF	BLC	BMP-4	BMP-6	CK β 8-1	CNTF	EGF	Eotaxin
2	NEG	NEG	NEG	NEG	Blank	Angiogenin	BDNF	BLC	BMP-4	BMP-6	CK \$ 8-1	CNTF	EGF	Eotaxin
3	Eotaxin-2	Eotaxin-3	FGF-6	FGF-7	Fit-3 Ligand	Fractalkine	GCP-2	GDNF	GM-CSF	1-309	IFN-y	IGFBP-1	IGFBP-2	IGFBP-4
4	Eotaxin-2	Eotaxin-3	FGF-6	FGF-7	Fit-3 Ligand	Fractalkine	GCP-2	GDNF	GM-CSF	1-309	fFN-y	IGFBP-1	IGFBP-2	IGFBP-4
5	IGF-I	IL-10	IL-13	IL-15	IL-16	IL-1∝	IL-1β	IL-1ra	IL-2	L/3	IL-4	16	L-6	IL-7
6	IGF-I	IL-10	IL-13	IL-15	IL-16	IL-1x	IL-1β	IL-1ra	IL-2	IL-3	4	IL-6	116	IL-7
7	Leptin	LIGHT	MCP-1	MCP-2	MCP-3	MCP-4	M-CSF	MDC	MIG	MIP-18	MIP-3∝	NAP-2	NT-3	PARC
8	Leptin	LIGHT	MCP-1	MCP-2	MCP-3	MCP-4	M-CSF	MDC	MIG	MIP-18	MIP-3x	NAP-2	NT-3	PARC
9	PDGF-BE	RANTES	SCF	SDF-1	TARC	TGF-81	TGF-83	TNF-α	TNF-8	Blank	Blank	Blank	Blank	Blank
10	PDGF-BE	RANTES	SCF	SDF-1	TARC	TGF-61	TGF-β 3	TNF-α	TNF-β	Blank	Blank	Blank	POS	POS

Array 2

	a	b		d			g	h			k		m	n
1	POS	POS	POS	POS	Blank	Acrp30	AgRP	Angiopoletin-2	Amphiregulin	Axt	bFGF	b-NGF	BTC	CCL-28
2	NEG	NEG	NEG	NEG	Blank	Acrp30	AgRP	Angiopoletin-2	Amphiregulin	Axd .	bFGF	b-NGF	BTC	CCL-28
3	CTACK	Dtk	EGF-R	ENA-78	Fas	FGF-4	FGF-9	GCSF	GITR-Ligand	GITR	GRO	GRO-α	HCC-4	HGF
4	CTACK	Dtk	EGF-R	ENA-78	Fas	FGF-4	FGF-9	GCSF	GITR-Ligand	GITR	GRO	GRO-α	HCC-4	HGF
5	ICAM-1	ICAM-3	IGFBP-3	IGFBP-6	IGF-LSR	L-1 R4/ST2	IL-1 RI	IL-11	IL-12 p40	L-12 p70	B-17	IL-2 Bx	L-6R	IL-8
6	ICAM-1	ICAM-3	IGFBP-3	IGFBP-6	IGF-I SR	L-1 R4/ST2	IL-1 RI	IL-11	IL-12 p40	L-12 p70	IL-17	IL/2 Rx	L-6R	IL-8
7	I-TAC	Lymphotectin	MIF	MIP-1α	MIP-1β	MIP-3β	MSP-α	NT-4	Osteoprotegerin	Oncostatin M	PIGF	sgp130	sTNF RII	sTNF-RI
8	I-TAC	Lymphotectin	MIF	MIP-1α	MIP-1β	MIP-3β	MSP-α	NT-4	Osteoprotegerin	Oncostatin M	PIGF	sgp130	sTNF RII	sTNF-RI
9	TECK	TIMP-1	TIMP-2	Thrombopoietin	TRAIL R3	TRAIL R4	uPAR	VEGF	VEGF-D	Blank	Blank	Blank	Blank	Blank
10	TECK	TIMP-1	TIMP-2	Thrombopoietin	TRAIL R3	TRAIL R4	uPAR	VEGF	VEGF-D	Blank	Blank	Blank	POS	POS

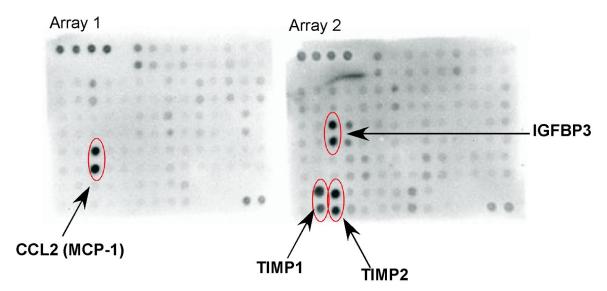


Fig. S4. Analysis of conditioned media of RASFs. Maps of the 2 cytokine arrays (RayBiotech human cytokine array C series 1000) used are shown. At the bottom are results of immunoblot analysis, with the most highly positive spots marked with red circles.

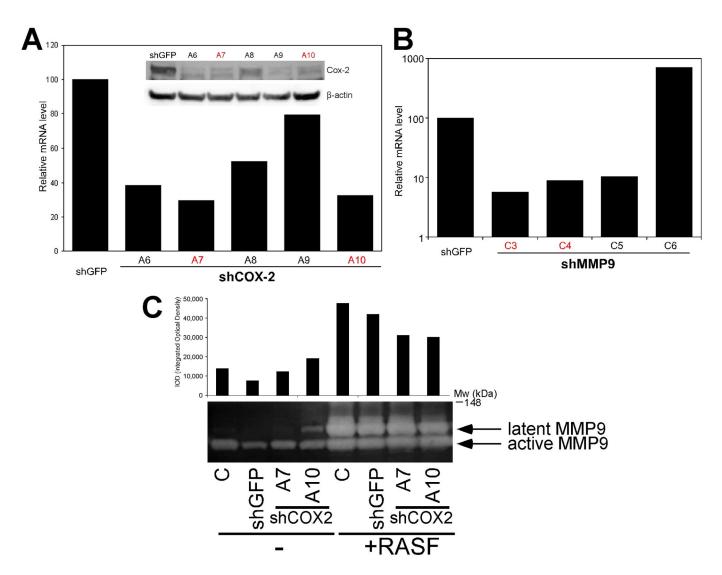


Fig. S5. Validation of shRNA clones. The shRNA clones highlighted in red were used for functional studies. (A) Quantitative RT-PCR analysis of COX-2 mRNA levels in control shGFP and COX-2 shRNA clones. (Inset) Western blot analysis of COX-2 protein levels. (B) Quantitative RT-PCR analysis of MMP9 mRNA levels in control shGFP and MMP9 shRNA clones. (C) Zymography experiment using the indicated clones in the presence and absence of cocultured RASFs. Image of gel and quantitation of the signal are indicated. Molecular mass marker and latent (105-kDa) and active (95-kDa) forms of MMP9 are indicated.

Table S1. Sequences of the shRNA clones used for the study

Symbol	ymbol Clone ID		Column	RNAi seq			
ММР9	TRCN0000051438	С	3	CCACAACATCACCTATTGGAT			
MMP9	TRCN0000051439	C	4	GCGGTGATTGACGACGCCTTT			
MMP9	TRCN0000051440	C	5	CAGTACCGAGAGAAAGCCTAT			
MMP9	TRCN0000051441	C	6	CAGTTTCCATTCATCTTCCAA			
PTGS2	TRCN0000045533	Α	6	GCTGAATTTAACACCCTCTAT			
PTGS2	TRCN0000045534	Α	7	GCAGATGAAATACCAGTCTTT			
PTGS2	TRCN000045535	Α	8	CCAGGGCTCAAACATGATGTT			
PTGS2	TRCN0000045536	Α	9	CGTTGTGAATAACATTCCCTT			
PTGS2	TRCN0000045537	Α	10	CCATTCTCCTTGAAAGGACTT			

Clones in boldface were used for the experiments.