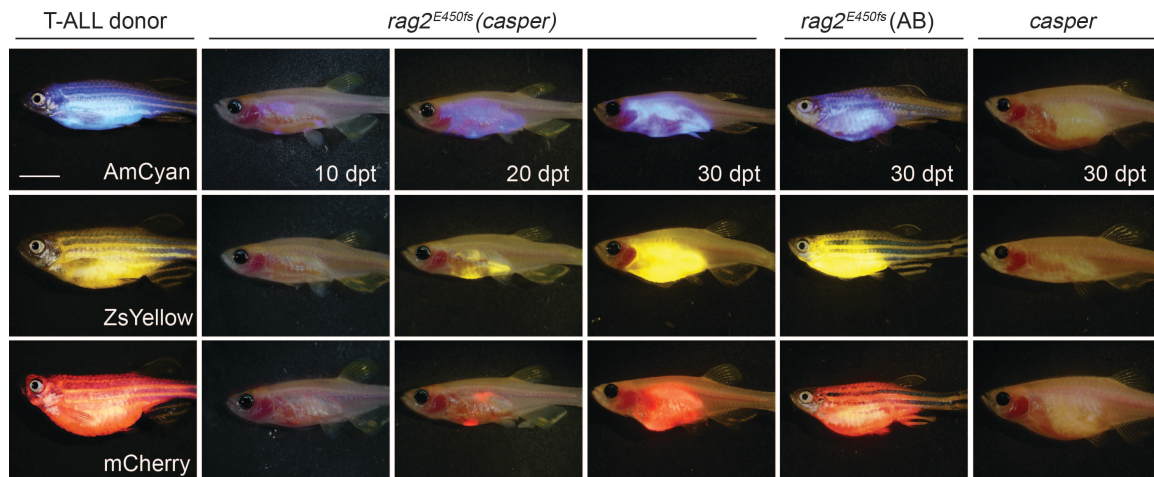
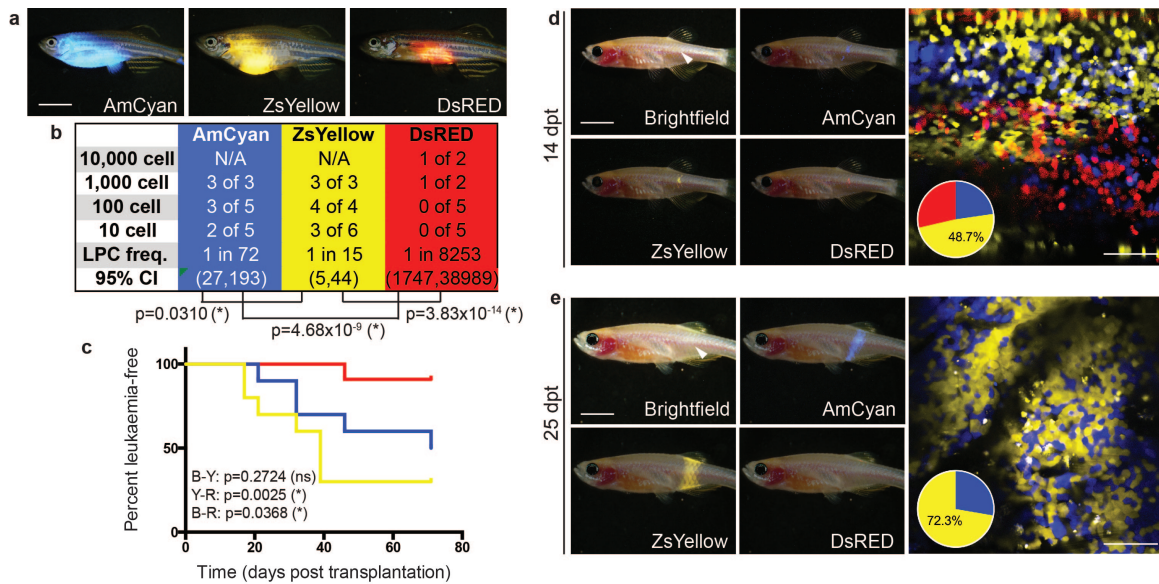
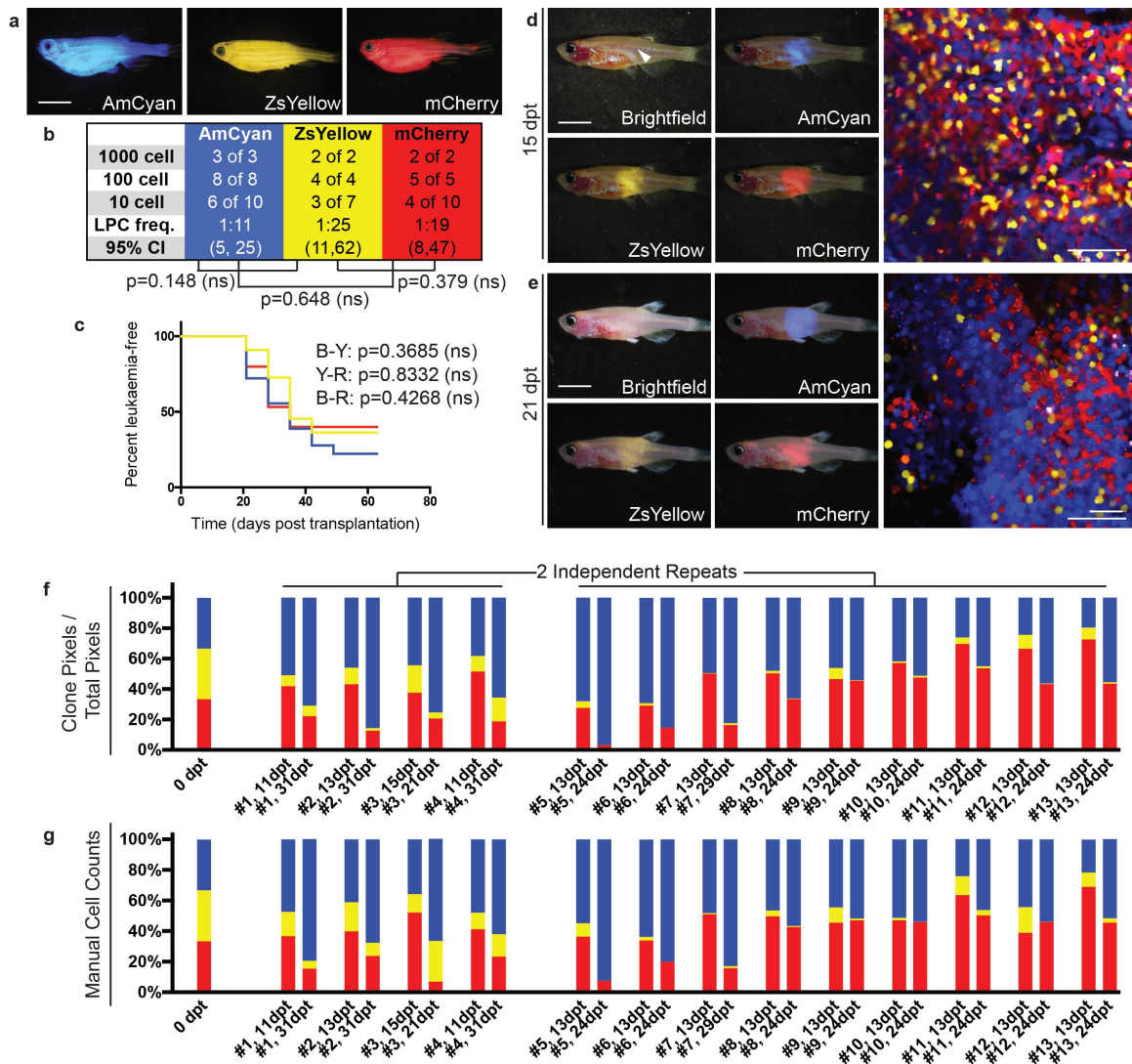




Supplementary Figure 1: Imaging T-ALL progression and growth in transplanted *rag2^{E450fs} (casper)* fish. Monoclonal T-ALLs were serially passaged in CG1 strain fish and then used as donors (left panel). Cells were transplanted intra-peritoneally into *rag2^{E450fs} (casper)*, *rag2^{E450fs} (AB)*, and unconditioned, *casper*-strain recipient fish (1.0×10^5 cells per recipient animal). Merged brightfield and fluorescent images are shown at 10, 20 and 30 dpt. Scale bars equal 5 mm.

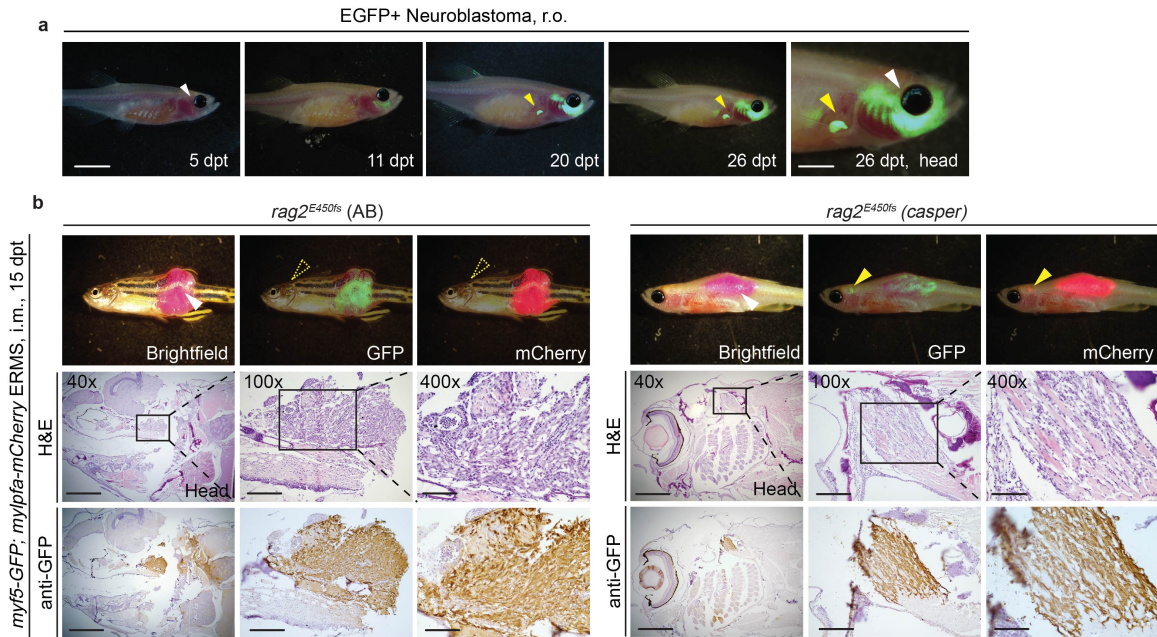


Supplementary Figure 2: Emergence of clonal dominance can result from inherent functional differences between T-ALL clones. (a) Donor animals engrafted with monoclonal T-ALL arising in the *CG1* background. (b-c) Monoclonal T-ALLs were implanted into syngeneic *CG1* strain fish and assessed for LPC frequency by limiting dilution cell transplantation (b) or latency of regrowth (c). T-ALLs have significantly different LPC frequency and latency, with p-values noted on each panel. (d-e) Confocal imaging of engrafted *rag2*^{E450fs} (*casper*) fish at 14 dpt (d) and 25 dpt (e). White arrow denotes site of injection and imaging. Pie chart shows the relative proportion of each fluorescent clone contained within the imaging panel shown. Scale bars equal 5 mm in whole animal images and 50 μ m in confocal images.



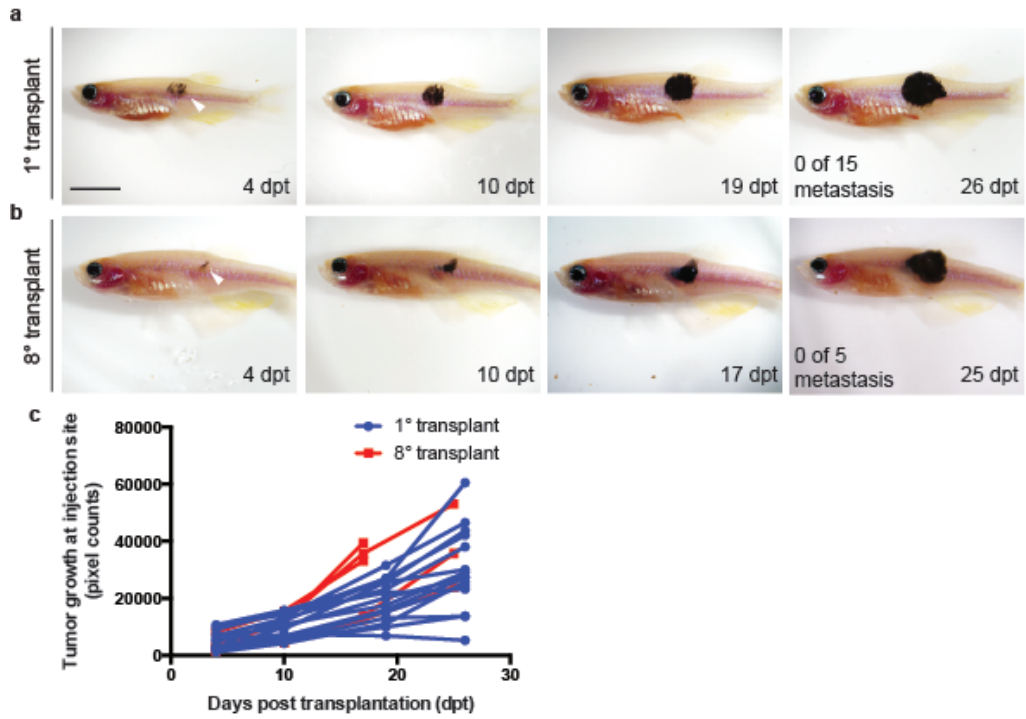
Supplementary Figure 3: Emergence of clonal dominance among three similar T-ALL clones. (a) Donor animals engrafted with monoclonal T-ALL arising in the CG1 background. (b-c) Monoclonal T-ALLs were implanted into syngeneic CG1 strain fish and assessed for LPC frequency by limiting dilution cell transplantation (b) or latency of regrowth (c). T-ALLs have similar LPC frequency and latency, with p-values noted on each panel. (d-e) Confocal imaging of engrafted *rag2^{E450fs}* (*casper*) fish at 15 dpt (d) and 21 dpt (e). White arrow denotes site of injection and imaging. (f-g) Relative proportions of each fluorescent clone contained within individual engrafted animals quantified by

fluorescence area within confocal images (**f**) and manual cell counts (**g**). Scale bars equal 5 mm in whole animal images and 50 μm in confocal images.



Supplementary Figure 4: Visualising neuroblastoma and ERMS metastasis in

transplanted *rag2^{E450fs}* (*casper*) fish. (a) Retro-orbital transplantation of a GFP-labelled neuroblastoma. White arrow indicates the site of injection; yellow arrow indicates metastasis to a region near the liver. (b) Intra-muscular transplantation of ERMS into *rag2^{E450fs}* recipient fish. White arrow indicates the site of injection; yellow arrows indicate the site of metastasis. Note that metastasis can be directly visualised by epifluorescence microscopy in the *rag2^{E450fs}* (*casper*) recipients (yellow arrow) but not the *rag2^{E450fs}* (AB) (open yellow arrow). H&E and anti-GFP staining on sections of the recipient animals confirmed the location of metastasis. Scale bars equal 5 mm for whole animal images, 2 mm in images of heads, 1 mm in 40x histological images; 300 μ m in 100x histological images; and 100 μ m in 400x histological images.



Supplementary Figure 5: Serial passaging did not result in increased metastatic potential or growth in one melanoma. (a-b) Serial imaging of engraftment of a pigmented melanoma into *rag2^{E450fs}* (*casper*) recipient fish. 1° transplant (**a**) and 8° transplant (**b**). White arrow indicates the site of injection. (**c**) Quantification of tumour growth within individual engrafted fish. Scale bar equals 5 mm.

Supplementary Table 1: Transplantations performed in this study

Donor					Recipient	Age of recipients (months)	Method of transplantation	Number of tumour cells transplanted per recipient	Recipients engrafted	Total transplanted
Tumour type	Transgenics	Back-ground	Fluorescent marker	Donor animal						
T-cell lymphoblastic leukaemia (T-ALL)	<i>Tg (rag2:cMyc)</i>	CG1	AmCyan	Monoclonal in CG1 (Supplementary Fig. 1)	<i>rag2^{E450fs} (casper)</i>	4	intra-peritoneal (i.p.)	1.0x10 ⁵ cells in 5 µl	5	6
					<i>Wild-type (casper)</i>	4			0	6
					<i>rag2^{E450fs} (AB)</i>	4			6	6
			ZsYellow	Monoclonal in CG1 (Fig. 1a; Supplementary Fig. 1)	<i>rag2^{E450fs} (casper)</i>	4			3	5
					<i>Wild-type (casper)</i>	4			0	10
					<i>rag2^{E450fs} (AB)</i>	4			6	6
			mCherry	Monoclonal in CG1 (Supplementary Fig. 1)	<i>rag2^{E450fs} (casper)</i>	4			3	5
					<i>Wild-type (casper)</i>	4			0	6
					<i>rag2^{E450fs} (AB)</i>	4			4	5
			AmCyan + ZsYellow + mCherry	Monoclonal in CG1 (Fig. 4)	<i>rag2^{E450fs} (casper)</i>	2.5	intra-muscular (i.m.)	3.3x10 ⁴ of each clone, 1.0x10 ⁵ cells in total per recipient animal, in 2 µl	17	17
			AmCyan + ZsYellow + DsRED	Monoclonal in CG1 (Supplementary Fig. 2)	<i>rag2^{E450fs} (casper)</i>	2			3	16
			AmCyan + ZsYellow + mCherry	Monoclonal in CG1 (Supplementary Fig. 3)	<i>rag2^{E450fs} (casper)</i>	3.5			9	10
					<i>rag2^{E450fs} (casper) (repeat)</i>	2			10	12
Neuro-blastoma	<i>Tg(dβh:EGFP-MYC<i>N</i>; dβh:ALK^{F1174L})</i>	AB	EGFP	primary	<i>rag2^{E450fs} (AB)</i>	3	intra-peritoneal (i.p.)	5.0x10 ⁵ cells in 5 µl	7	7
				1° transplant in <i>rag2^{E450fs} (AB)</i>	<i>rag2^{E450fs} (AB)</i>	3	intra-peritoneal (i.p.)	1.0x10 ⁶ cells in 5 µl	4	4
				2° transplant in <i>rag2^{E450fs} (AB)</i> (Fig. 1b)	<i>rag2^{E450fs} (AB)</i>	3.25	intra-peritoneal (i.p.)	1.0x10 ⁶ cells in 5 µl	3	3
					<i>rag2^{E450fs} (casper)</i>	3.75	intra-peritoneal (i.p.)	5.0x10 ⁵ cells in 2.5 µl	5	6
					<i>rag2^{E450fs} (casper)</i>	3.75	retro-orbital (r.o.) (Supplementary Fig. 4a)	4.0x10 ⁵ cells in 2 µl	14	17
					<i>Wild-type (casper)</i>	3.75	retro-orbital (r.o.)	4.0x10 ⁵ cells in 2 µl	0	15

Embryonal rhabdomyosarcoma (ERMS)	<i>Tg</i> (<i>rag2:kRAS^{G12D}</i> , ICN)	CG1	<i>myf5:GFP</i> ; <i>mylpfa:mCherry</i>	3° transplant in CG1	<i>rag2^{E450fs}</i> (<i>casper</i>)	4	intra-peritoneal (i.p.)	5.0x10 ⁵ cells in 5 µl	5	6
					<i>Wild-type</i> (<i>casper</i>)	4			0	7
					<i>rag2^{E450fs}</i> (AB)	3			2	2
					<i>rag2^{E450fs}</i> (<i>casper</i>)	4	intra-muscular (i.m.) (Fig. 1c; Supplementary Fig. 4b)	3.0x10 ⁵ cells in 3 µl	13	13
					<i>Wild-type</i> (<i>casper</i>)	4			0	9
					<i>rag2^{E450fs}</i> (AB)	3			6	6
		CG1	<i>myf5:GFP</i> ; <i>mylpfa:mCherry</i>	4° transplant in CG1	<i>rag2^{E450fs}</i> (AB)	3	intra-muscular (i.m.)	3.3x10 ⁵ cells in 2 µl	4	11
					<i>rag2^{E450fs}</i> (<i>casper</i>)	3	intra-muscular (i.m.)		9	14
					<i>rag2^{E450fs}</i> (<i>casper</i>)	3	retro-orbital (r.o.)		14	14
	<i>Tg</i> (<i>rag2:kRAS^{G12D}</i>)	AB	<i>myf5:GFP</i> ; <i>myogenin-H2b:mRFP</i> ; <i>mylpfa:lyn-cyan</i>	primary	<i>flk1:mCherry</i> ; <i>rag2^{E450fs}</i> (<i>casper</i>)	2	intra-peritoneal (i.p.)	2.0x10 ⁴ cells in 5 µl	2	2
				1° transplant in <i>flk1:mCherry</i> ; <i>rag2^{E450fs}</i> (<i>casper</i>) (Fig. 3)	<i>flk1:mCherry</i> ; <i>rag2^{E450fs}</i> (<i>casper</i>)	3	intra-muscular (i.m.)	4.0x10 ⁵ cells in 2 µl	4	4
					<i>rag2^{E450fs}</i> (<i>casper</i>)	3	intra-muscular (i.m.)		3	3
		CG1, (<i>tp53^{+/-}</i>) ²	<i>rag2:GFP</i>	1° transplant in CG1	<i>flk1:mCherry</i> ; <i>rag2^{E450fs}</i> (<i>casper</i>)	4	intra-muscular (i.m.)	8.0x10 ⁴ cells in 2 µl	4	4
					<i>rag2^{E450fs}</i> (<i>casper</i>)	2.5	intra-muscular (i.m.)		5	5
		CG1	<i>rag2:GFP</i>	primary	<i>flk1:mCherry</i> ; <i>rag2^{E450fs}</i> (<i>casper</i>)	2.5	intra-muscular (i.m.)	1.6x10 ⁵ cells in 2 µl	5	5
					<i>rag2^{E450fs}</i> (<i>casper</i>)	2.5	intra-muscular (i.m.)		5	5
		CG1	<i>rag2:GFP</i>	primary	<i>flk1:mCherry</i> ; <i>rag2^{E450fs}</i> (<i>casper</i>)	2.5	intra-muscular (i.m.)	2.0x10 ⁵ cells in 2 µl	5	5
					<i>rag2^{E450fs}</i> (<i>casper</i>)	2.5	intra-muscular (i.m.)		5	5
		CG1	<i>rag2:GFP</i>	2° transplant in CG1	<i>flk1:mCherry</i> ; <i>rag2^{E450fs}</i> (<i>casper</i>) (Fig. 2c,d)	4	intra-muscular (i.m.)	5.0x10 ⁵ cells in 2 µl	5	5
					<i>rag2^{E450fs}</i> (<i>casper</i>)	4	intra-muscular (i.m.)		5	5
Melanoma	<i>Tg</i> (<i>mitfa:BRAF^{V600E}</i>); <i>tp53^{-/-}</i> ; <i>mitfa^{-/-}</i>	<i>nacre</i>	<i>Tg</i> (<i>MiniCoopR:GFP</i>)	primary	<i>rag2^{E450fs}</i> (<i>casper</i>)	3	intra-peritoneal (i.p.)	1.5x10 ⁵ cells in 5 µl	6	6
				1° transplant in <i>rag2^{E450fs}</i> (<i>casper</i>)	<i>flk1:mCherry</i> ; <i>rag2^{E450fs}</i> (<i>casper</i>)	3.5	intra-muscular (i.m.)	5.0x10 ⁵ cells in 2 µl	8	8
	<i>Tg</i> (<i>mitfa:BRAF^{V600E}</i>); <i>tp53^{-/-}</i> ; <i>mitfa^{-/-}</i>	<i>nacre</i>	<i>Tg</i> (<i>MiniCoopR:GFP</i>)	primary	<i>rag2^{E450fs}</i> (<i>casper</i>)	3	intra-peritoneal (i.p.)	8.0x10 ⁵ cells in 5 µl	3	3
				1° transplant in <i>rag2^{E450fs}</i> (<i>casper</i>)	<i>flk1:mCherry</i> ; <i>rag2^{E450fs}</i> (<i>casper</i>)	3	intra-muscular (i.m.)	5.0x10 ⁵ cells in 2 µl	7	8
	<i>Tg</i> (<i>mitfa:BRAF^{V600E}</i>); <i>tp53^{-/-}</i> ; <i>mitfa^{-/-}</i>	<i>nacre</i>	<i>Tg</i> (<i>MiniCoopR:GFP</i>)	primary	<i>rag2^{E450fs}</i> (<i>casper</i>)	3	intra-peritoneal (i.p.)	1.8x10 ⁶ cells in 5 µl	2	2
				1° transplant in <i>rag2^{E450fs}</i> (<i>casper</i>)	<i>flk1:mCherry</i> ; <i>rag2^{E450fs}</i> (<i>casper</i>)	3	intra-muscular (i.m.)	5.0x10 ⁵ cells in 2 µl	7	8

	<i>Tg</i> (<i>mitfa</i> : <i>BRAF</i> ^{V600E}); <i>tp53</i> ^{-/-} ; <i>mitfa</i> ^{-/-} ; <i>alb</i> ^{-/-}	nacre	<i>Tg</i> (<i>MiniCoopR</i> : <i>GFP</i>)	primary	<i>rag2</i> ^{E450fs} (<i>casper</i>)	4	intra-peritoneal (i.p.)	5.5x10 ⁵ cells in 5 µl	3	3
					<i>rag2</i> ^{E450fs} (<i>AB</i>)	1.5	intra-peritoneal (i.p.)		3	3
				1° transplant in <i>rag2</i> ^{E450fs} (<i>casper</i>)	<i>rag2</i> ^{E450fs} (<i>casper</i>)	3	intra-muscular (i.m.) (Fig. 5c-e)	1.0x10 ⁵ cells in 2 µl	14	14
						3	retro-orbital (r.o.)		12	15
				4° transplant in <i>rag2</i> ^{E450fs} (<i>casper</i>)	<i>rag2</i> ^{E450fs} (<i>casper</i>)	3	intra-muscular (i.m.)	5.0x10 ⁵ cells in 3 µl	3	3
				6° transplant in <i>rag2</i> ^{E450fs} (<i>casper</i>)	<i>flk1</i> : <i>mCherry</i> ; <i>rag2</i> ^{E450fs} (<i>casper</i>) (Fig. 2b)	2.5	intra-muscular (i.m.)	5.0x10 ⁵ cells in 2 µl	5	5
					<i>rag2</i> ^{E450fs} (<i>casper</i>) (Fig. 2a)	3	intra-muscular (i.m.)	1.0x10 ⁵ cells in 2 µl	4	5
				7° transplant in <i>rag2</i> ^{E450fs} (<i>casper</i>)	<i>flk1</i> : <i>mCherry</i> ; <i>rag2</i> ^{E450fs} (<i>casper</i>)	2	intra-muscular (i.m.)	5.0x10 ⁵ cells in 2 µl	5	5
					<i>rag2</i> ^{E450fs} (<i>casper</i>)	2	intra-muscular (i.m.)		5	5
	<i>Tg</i> (<i>mitfa</i> : <i>BRAF</i> ^{V600E}); <i>tp53</i> ^{-/-} ; <i>mitfa</i> ^{-/-}	nacre	<i>Tg</i> (<i>MiniCoopR</i> : <i>GFP</i>)	primary	<i>rag2</i> ^{E450fs} (<i>casper</i>)	4	intra-peritoneal (i.p.)	3.5x10 ⁵ cells in 5 µl	5	5
				1° transplant in <i>rag2</i> ^{E450fs} (<i>casper</i>)	<i>rag2</i> ^{E450fs} (<i>casper</i>)	4	intra-muscular (i.m.) (Fig. 6a)	5.0x10 ⁵ cells in 2 µl	7	7
						4	retro-orbital (r.o.)		15	17
				5° transplant in <i>rag2</i> ^{E450fs} (<i>casper</i>)	<i>rag2</i> ^{E450fs} (<i>casper</i>)	2.5	intra-muscular (i.m.)	5.0x10 ⁵ cells in 2 µl	4	4
				7° transplant in <i>rag2</i> ^{E450fs} (<i>casper</i>)	<i>rag2</i> ^{E450fs} (<i>casper</i>)	3	intra-muscular (i.m.) (Fig. 6b,d)	5.0x10 ⁵ cells in 2 µl	4	4
	<i>Tg</i> (<i>mitfa</i> : <i>BRAF</i> ^{V600E}); <i>tp53</i> ^{-/-} ; <i>mitfa</i> ^{-/-}	nacre	<i>Tg</i> (<i>MiniCoopR</i> : <i>GFP</i>)	Primary (Fig. 1d)	<i>rag2</i> ^{E450fs} (<i>casper</i>)	4	intra-peritoneal (i.p.)	4.5x10 ⁵ cells in 5 µl	5	5
				1° transplant in <i>rag2</i> ^{E450fs} (<i>casper</i>)	<i>rag2</i> ^{E450fs} (<i>casper</i>)	4	intra-muscular (i.m.) (Supplementary Fig. 5a)	3.5x10 ⁵ cells in 2 µl	15	15
						4	retro-orbital (r.o.) (Fig. 5a)		13	15
				4° transplant in <i>rag2</i> ^{E450fs} (<i>casper</i>)	<i>rag2</i> ^{E450fs} (<i>casper</i>)	3	intra-muscular (i.m.)	5.0x10 ⁵ cells in 3 µl	3	3
				8° transplant in <i>rag2</i> ^{E450fs} (<i>casper</i>)	<i>flk1</i> : <i>mCherry</i> ; <i>rag2</i> ^{E450fs} (<i>casper</i>)	4	intra-muscular (i.m.) (Supplementary Fig. 5b)	5.0x10 ⁵ cells in 2 µl	5	5

Supplementary Table 2: Metastasis assessments in this study

Donor					Recipients	Method of Transplantation	Dosage per recipient (cells)	Engraftment and Metastasis			Total engrafted	Total transplanted
Tumour type	Transgenics	Background	Fluorescence marker	Donor animal				Local engraftment only	Invasion	Distal Metastasis		
Neuroblastoma	<i>Tg(dβh:EGFP-MYC<i>N</i>; dβh:ALK^{F1174L})</i>	AB	<i>dβh:EGFP</i>	2° transplant in <i>rag2^{E450fs}</i> (AB)	<i>rag2^{E450fs}</i> (casper)	r.o.	4.0x10 ⁵	13	0	1 (near liver) (Supplementary Fig. 4a)	14	17
ERMS	<i>Tg (rag2:kRAS^{G12D};ICN)</i>	CG1	<i>myf5:GFP; mylpfa:mCherry</i>	3° transplant in CG1	<i>rag2^{E450fs}</i> (AB)	i.m.	3.0x10 ⁵	5	0	1 (muscle tissue adjacent to thymus) (Supplementary Fig. 4b)	6	6
					<i>rag2^{E450fs}</i> (casper)	i.m.		12	0	1 (muscle tissue adjacent to thymus) (Supplementary Fig. 4b)	13	13
	<i>Tg (rag2:kRAS^{G12D};ICN)</i>	CG1	<i>myf5:GFP; mylpfa:mCherry</i>	4° transplant in CG1	<i>rag2^{E450fs}</i> (AB)	i.m.	3.3x10 ⁵	4	0	0	4	11
					<i>rag2^{E450fs}</i> (casper)	i.m.		8	1 (trunk kidney)	0	9	14
					<i>rag2^{E450fs}</i> (casper)	r.o.		8	5 (invasion into cranial cavity, no kidney involvement)	1 (head kidney)	14	14
	<i>Tg (rag2:kRAS^{G12D})</i>	CG1	<i>rag2:GFP</i>	2° transplant in CG1	<i>flk1:mCherry; rag2^{E450fs}</i> (casper)	i.m.	5.0x10 ⁵	4	1 (whole kidney)	0	5	5
					<i>rag2^{E450fs}</i> (casper)	i.m.	5.0x10 ⁵	5	0	0	5	5
Melanoma	<i>Tg(mitfa:BRAF^{V600E}; tp53^{-/-}; mitfa^{-/-})</i>	nacre	MiniCoopR:GFP	1° transplant in <i>rag2^{E450fs}</i> (casper)	<i>flk1:mCherry; rag2^{E450fs}</i> (casper)	i.m.	5.0x10 ⁵	7	0	0	7	8
	<i>Tg(mitfa:BRAF^{V600E}; tp53^{-/-}; mitfa^{-/-})</i>	nacre	MiniCoopR:GFP	1° transplant in <i>rag2^{E450fs}</i> (casper)	<i>flk1:mCherry; rag2^{E450fs}</i> (casper)	i.m.	5.0x10 ⁵	3	0	4 (trunk and head kidney)	7	8
	<i>Tg(mitfa:BRAF^{V600E}; tp53^{-/-}; mitfa^{-/-})</i>	nacre	MiniCoopR:GFP	1° transplant in <i>rag2^{E450fs}</i> (casper)	<i>flk1:mCherry; rag2^{E450fs}</i> (casper)	i.m.	5.0x10 ⁵	5	1 (invasion along the spinal cord)	2 (trunk kidney)	8	8
	<i>Tg(mitfa:BRAF^{V600E}; tp53^{-/-}; mitfa^{-/-}; alb^{-/-})</i>	nacre	MiniCoopR:GFP	1° transplant in <i>rag2^{E450fs}</i> (casper)	<i>rag2^{E450fs}</i> (casper)	i.m.	1.0x10 ⁵	12	0	2 [1 (muscle tissue adjacent to thymus); 1 (thymus)] (Fig. 5c-e)	14	14
					<i>rag2^{E450fs}</i> (casper)	r.o.		9	3 [2 (tumour invades through the cranial cavity to spread into	0	12	15

									gills, further reaching to head and trunk kidney); 1(thymus)]			
				6° transplant in <i>rag2^{E450fs}</i> (casper)	<i>rag2^{E450fs}</i> (casper)	i.m.	1.0x10 ⁵	4	0	0	4	5
					<i>flk1:mCherry; rag2^{E450fs}</i> (casper)		5.0x10 ⁵	1	1 (trunk kidney)	3 [1 (head kidney); 1 (region above the trunk kidney); 1 (scattered throughout the whole body)]	5	5
				7° transplant in <i>rag2^{E450fs}</i> (casper)	<i>rag2^{E450fs}</i> (casper)	i.m.	5.0x10 ⁵	3	2 (invasion along the spinal cord)	0	5	5
					<i>flk1:mCherry; rag2^{E450fs}</i> (casper)	i.m.	5.0x10 ⁵	1	1 (invasion along the spinal cord)	3 [1 (head kidney); 1 (trunk and head kidney); 1 (thymus)]	5	5
				<i>Tg(mitfa:BRAF^{V600E}); tp53^{-/-}; mitfa^{-/-}</i>	<i>nacre</i>	<i>MiniCoopR:GFP</i>	1° transplant in <i>rag2^{E450fs}</i> (casper)	<i>rag2^{E450fs}</i> (casper)	i.m.	5.0x10 ⁵	6	1 (invasion along the spinal cord, involving mesonephros)
	<i>rag2^{E450fs}</i> (casper)	r.o.	5.0x10 ⁵					3	12 [11 (tumour invades through the cranial cavity and spread into gills, further reaching to pronephros and mesonephros); 1 (tumour invades into the optic tectum/brain region)]	0	15	17
	5° transplant in <i>rag2^{E450fs}</i> (casper)	<i>rag2^{E450fs}</i> (casper)	i.m.				5.0x10 ⁵	0	0	3 [2 (head kidney); 1 (muscle tissue beneath trunk kidney)]	3	3
	7° transplant in <i>rag2^{E450fs}</i> (casper)	<i>rag2^{E450fs}</i> (casper)	i.m.				5.0x10 ⁵	0	0	4 [2 (kidney, then disseminate to whole body); 1 (trunk kidney); 1 (region above	4	4

										the trunk kidney)] (Fig. 6b,d)		
	<i>Tg(mitfa:BRAF^{V600E}); tp53^{-/-}; mitfa^{-/-}</i>	<i>nacre</i>	<i>MiniCoopR:GFP</i>	1° transplant in <i>rag2^{E450fs}</i> (<i>casper</i>)	<i>rag2^{E450fs}</i> (<i>casper</i>)	i.m.	3.5x10 ⁵	14	1 (region above the trunk kidney)	0 (Supplementary Fig. 5a)	15	15
						r.o.	3.5x10 ⁵	3	10 [5 (invasion into cranial cavity); 1 (invasion into cranial cavity, spreading into the gills); 3 (tumour invades through the cranial cavity to spread into gills, further reaching to head and trunk kidney); 1 (tumour invades into the optic tectum (brain) region)] (Fig. 5a)	0	13	15
				4° transplant in <i>rag2^{E450fs}</i> (<i>casper</i>)	<i>rag2^{E450fs}</i> (<i>casper</i>)	i.m.	5.0x10 ⁵	3	0	0	3	3
				8° transplant in <i>rag2^{E450fs}</i> (<i>casper</i>)	<i>flk1:mCherry; rag2^{E450fs}</i> (<i>casper</i>)	i.m.	5.0x10 ⁵	4	1 (whole kidney)	0 (Supplementary Fig. 5b)	5	5