Supplemental Figures

Supplemental Figure 1

A. Forced Myc expression increases total B cells in bone marrow of premalignant mice independently of the presence or absence of p73. Cells isolated from bone marrow (BM), spleen and lymph nodes (LN) of 4-week old non-transgenic (n= 8 per genotype) and premalignant Eμ-myc mice (n= 8 per genotype) were stained with antibodies to B220 and CD19 and analyzed by FACS. Percentage of total B cells is indicated. Error bars represent the standard error.

B. Loss of p73 does not decrease apoptosis in premalignant cells but shows a trend towards increase. Spontaneous apoptosis of cells from total bone marrow of 4-week old non-transgenic (normal) and premalignant Eμ-myc mice of the indicated genotypes (n=3 each).

C. Evidence for p53 activation upon p73 loss. Quantitative real time RT-PCR from bone marrow cells of non-transgenic mice (top) and early premalignant bone marrow cells of transgenic mice (bottom) of the indicated genotypes. Shown is the average gene expression of Puma, p21, Bax and Noxa from 3 mice pooled per genotype. Samples were run in duplicate and expression was normalized to HPRT.

Supplemental Figure 2

Lymphomas of the indicated genotypes. No consistent morphologic difference is seen. H&E staining.

Supplemental Figure 3

Loss of p73 alters the clinical phenotype of Myc-induced lymphomas, characterized by decreased tumor burden in lymphoid organs with concomitant higher dissemination to extranodal sites (see Supplemental Figure 4). Representative moribund Eμ-myc p73+/+ and p73-/- mice are shown.

Supplemental Figure 4

Histopathology of tumor dissemination in p73-/- Eμ-myc mice. Arrows denote lymphomatous infiltrates. Top to bottom meninges, here the Dura Mater, massively thickened by tumor infiltration; brain parenchyma infiltrated via the Pia Mater; lungs with multiple tumor infiltrates from 2 different animals; macroscopically prominent, symmetric paravertebral "ridges" of lymphoma; these tumor masses completely efface paravertebral muscles and soft tissues; large lymphomatous nodule within calvarial muscle on skull; femur with replacement of bone marrow and dissemination into skeletal muscle and fat.

Supplemental Figure 5

SKY analysis of representative Eμ-myc p73+/+, p73+/- and p73-/- lymphomas. The number of analyzed metaphases and the abnormalities found are summarized. p73-null lymphomas typically contain no gross chromosomal abnormalities (22 of 24 analyzed metaphases were normal) and display near-diploid DNA content.

Supplemental Figure 6

A. Validation of select deregulated genes relevant to tumor dissemination by quantitative real time RT-PCR. Shown is average gene expression of the indicated genes in premalignant B cells isolated from bone marrow of WT and p73-/-Eμ-myc mice (3 mice pooled per genotype, samples run in duplicate). Gene expression was normalized to HPRT expression.

B. Venn Diagrams that supplement Table 3 and illustrate overlap of deregulated genes between mouse and human lymphomas. Of 445 downregulated genes in disseminated mouse lymphomas, 35 genes (8%) are co-downregulated in all disseminated (extranodal) human lymphomas (left). Nine genes are co-upregulated in disseminated mouse and the subset of human lymphomas that share at least 50% of their upregulated gene list with mouse lymphomas (17%, 11of 65 cases) (right).

Supplemental Table 1.

Cell Surface Genes

A. 116 (31%) of the 377 genes that are upregulated in disseminated p73-/- EμMyc lymphomas versus p73+/+ EμMyc controls are cell surface genes.
Note: Specific genes can be assigned to more than one functional group.

Gene symbol	Systematic name	Description	Fold Change (log2)	P-Value
Major histocompatibility complex antigens				
H2-Eb1	NM_010382	histocompatibility 2, class II antigen E beta	3.048096785	1.74E-07
H2-Ea	NM_010381	histocompatibility 2, class II antigen E alpha	2.606611874	5.32E-07
Oas1f	NM_145153	2'-5' oligoadenylate synthetase 1F	1.797958902	2.14E-06
H2-Ab1	NM_207105	histocompatibility 2, class II antigen A, beta 1	2.069209639	7.19E-07
H2-Oa	NM_008206	histocompatibility 2, O region alpha locus	1.662816749	1.37E-05
Ms4a4b	NM_021718	membrane-spanning 4-domains, subfamily A, member 4B	2.99920642	4.22E-07
Gpnmb	NM_053110	glycoprotein (transmembrane) nmb	1.587170566	4.15E-06
Cybb	NM_007807	cytochrome b-245, beta polypeptide	1.19404708	4.05E-05
Cd74	NM_010545	CD74 antigen (invariant polypeptide of major histocompatibility complex, class II antigen-associated)	1.766104064	1.23E-06
H2-DMa	NM_010386	histocompatibility 2, class II, locus DMa	3.168134046	3.65E-08
H2-DMb1	NM_010387	histocompatibility 2, class II, locus Mb1	2.934639588	2.75E-08
H2-DMb2	NM_010388	histocompatibility 2, class II, locus Mb2	2.924278171	1.38E-07
Lilrb3	NM_011095	leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 3	3.015291452	2.82E-08
H2-Aa	NM_010378	histocompatibility 2, class II antigen A, alpha	2.776006155	6.57E-08
Cd83	NM_009856	CD83 antigen	1.969812658	3.52E-06
Cell adhesion molecules				
Itgax	NM_021334	integrin alpha X	1.189589482	2.75E-05
Cd6	NM_009852	CD6 antigen, transcript variant 2	1.747161954	1.52E-06
Cd8b1	NM_009858	CD8 antigen, beta chain 1	4.521213686	3.25E-09
Itgal	NM_008400	integrin alpha L	1.578690254	2.00E-05
Ms4a1	NM_007641	membrane-spanning 4-domains, subfamily A, member 1	2.776099575	9.00E-08
Slc40a1	NM_016917	solute carrier family 40 (iron-regulated transporter), member 1	2.34217691	2.08E-07
Postn	NM_015784	periostin, osteoblast specific factor	1.626648663	1.66E-06
Tspan32	NM_020286	tetraspanin 32	1.322546431	6.74E-06
Cd9	NM_007657	CD9 antigen	2.631739515	5.62E-08
Armcx2	NM_026139	armadillo repeat containing, X-linked 2	1.296326494	7.49E-06
Cd34	NM_133654	CD34 antigen	1.151022982	1.93E-05
Col8a1	NM_007739	procollagen, type VIII, alpha 1	1.021631755	5.46E-05
Cd2	NM_013486	CD2 antigen	1.250522156	5.93E-05
Itgb7	NM_013566	integrin beta 7	3.361727127	1.08E-08
Ifitm3	NM_025378	interferon induced transmembrane protein 3	1.827734758	3.85E-05
Sell	NM_011346	selectin, lymphocyte	1.73181837	1.82E-06
Cd244	NM_018729	CD244 natural killer cell receptor 2B4	1.933225205	8.14E-07
Amica1	NM_001005421	adhesion molecule, interacts with CXADR antigen 1	1.187232414	4.02E-05
Zyx	NM_011777	zyxin	2.654797692	7.37E-08
Gpr137b	NM_031999	G protein-coupled receptor 137B	1.197694445	1.23E-05

Chemokines				
Cxcl4	NM_019932	chemokine (C-X-C motif) ligand 4	1.32766983	5.35E-05
Ccl5	NM_013653	chemokine (C-C motif) ligand 5	2.30735947	2.10E-07
Plek	NM_019549	pleckstrin	2.217609036	3.26E-07
Ccl6	NM_009139	chemokine (C-C motif) ligand 6	2.512559223	2.45E-07
Ms4a4b	NM_021718	membrane-spanning 4-domains, subfamily A, member 4B	2.99920642	4.22E-07
Cytokine and chemokine receptors				
Csf2rb2	NM_007781	colony stimulating factor 2 receptor, beta 2, low-affinity (granulocyte-macrophage)	1.499594383	1.17E-05
Il27ra	NM_016671	interleukin 27 receptor, alpha	1.500732887	7.49E-06
Il18r1	NM_008365	interleukin 18 receptor 1	1.032430758	4.71E-05
Csf3r	NM_007782	colony stimulating factor 3 receptor (granulocyte)	1.073218776	1.80E-05
Pglyrp2	NM_021319	peptidoglycan recognition protein 2	2.071549444	0.001274368
Tnfrsf18	NM_009400	tumor necrosis factor receptor superfamily, member 18, transcript variant 1	1.683384668	1.60E-06
Ptpro	NM_011216	protein tyrosine phosphatase, receptor type, O	1.101393203	1.89E-05
Lifr	NM_013584	leukemia inhibitory factor receptor	1.169730543	4.67E-05
Tnfrsf25	NM_033042	tumor necrosis factor receptor superfamily, member 25	1.99666818	8.39E-07
Bfsp2	NM_001002896	beaded filament structural protein 2, phakinin	1.030283126	5.80E-05
Cd8b1	NM_009858	CD8 antigen, beta chain 1	4.521213686	3.25E-09
Ms4a7	NM_027836	membrane-spanning 4-domains, subfamily A, member 7, transcript variant 1	1.40356645	0.00011577
Ms4a4b	NM_021718	membrane-spanning 4-domains, subfamily A, member 4B	2.99920642	4.22E-07
Pglyrp2	NM_021319	peptidoglycan recognition protein 2	2.071549444	0.001274368
Ccr2	NM_009915	chemokine (C-C motif) receptor 2	1.106851386	2.05E-05
Ccr5	NM_009917	chemokine (C-C motif) receptor 5	1.077494852	3.88E-05
Ccr6	NM_009835	chemokine (C-C motif) receptor 6	1.441494716	5.99E-06
Cxcr3	NM_009910	chemokine (C-X-C motif) receptor 3	1.159909187	7.83E-05
Blr1	NM_007551	Burkitt lymphoma receptor 1, chemokine (C-X-C motif) receptor 5 (Cxcr5)	2.091135729	1.82E-06
Cxcr6	NM_03071]	chemokine (C-X-C motif) receptor 6	1.08243399	9.19E-05
Interleukin receptors				
Csf2rb2	NM_007781	colony stimulating factor 2 receptor, beta 2, low-affinity (granulocyte-macrophage)	1.499594383	1.17E-05
H2-Eb1	NM_010382	histocompatibility 2, class II antigen E beta	3.048096785	1.74E-07
Itgax	NM_021334	integrin alpha X	1.189589482	2.75E-05
Il27ra	NM_016671	interleukin 27 receptor, alpha	1.500732887	7.49E-06
Il18r1	NM_008365	interleukin 18 receptor 1	1.032430758	4.71E-05
Emr1	NM_010130	EGF-like module containing, mucin-like, hormone receptor-like sequence 1	2.290668939	3.47E-07
Hebp1	NM_013546	heme binding protein 1	1.176916145	8.14E-05
Thy1	NM_009382	thymus cell antigen 1, theta	3.87025413	4.46E-09
Ptpro	NM_011216	protein tyrosine phosphatase, receptor type, O	1.101393203	1.89E-05
Il2rb	NM_008368	interleukin 2 receptor, beta chain	2.410063675	4.73E-07
Lifr	NM_013584	leukemia inhibitory factor receptor	1.169730543	4.67E-05
Rtn4rl1	NM_177708	reticulon 4 receptor-like 1	1.435263308	0.000666608
Il10ra	NM_008348	interleukin 10 receptor, alpha	1.597845894	9.58E-06
Receptors				
Celsr1	NM_009886	cadherin EGF LAG seven-pass G-type receptor 1	1.182998658	6.29E-05
Fcer1g	NM_010185	Fc receptor, IgE, high affinity I, gamma polypeptide	1.710038492	2.00E-06
Ms4a4c	NM_029499	membrane-spanning 4-domains, subfamily A, member 4C	1.88334911	6.04E-07
Marco	NM_010766	macrophage receptor with collagenous structure	1.738611882	1.03E-06

Fcgr1	NM_010186	Fc receptor, IgG, high affinity I	1.649505287	1.69E-06
Rtn4rl1	NM_177708	reticulon 4 receptor-like 1	1.435263308	0.000666608
Gprc5b	NM_022420	G protein-coupled receptor, family C, group 5, member B	2.608787576	1.36E-07
Cd300d	NM_134158	Cd300D antigen	1.429497385	6.78E-06
Cd6	NM_009852	CD6 antigen (Cd6), transcript variant 2	1.747161954	1.52E-06
Derl3	NM_024440	Der1-like domain family, member 3	1.147471174	0.000255925
Ltbr	NM_010736	lymphotoxin B receptor	1.11518916	3.49E-05
Cd3g	NM_009850	CD3 antigen, gamma polypeptide	2.574810437	2.23E-07
Cd3d	NM_013487	CD3 antigen, delta polypeptide	3.167400834	2.40E-07
Emr1	NM_010130	EGF-like module containing, mucin-like, hormone receptor-like sequence 1	2.290668939	3.47E-07
Csf3r	NM_007782	colony stimulating factor 3 receptor (granulocyte)	1.073218776	1.80E-05
Tbxa2r	NM_009325	thromboxane A2 receptor	1.192887345	0.000724995
Cd36	NM_007643	CD36 antigen	1.20768995	1.03E-05
Cd244	NM_018729	CD244 natural killer cell receptor 2B4	1.933225205	8.14E-07
Clec4b1	NM_027218	C-type lectin domain family 4, member b1	1.742032903	2.06E-06
Ltb4r1	NM_008519	leukotriene B4 receptor 1	1.240414074	2.12E-05
Ms4a6b	NM_027209	membrane-spanning 4-domains, subfamily A, member 6B	2.816733097	3.80E-08
Lilrb3	NM_011095	leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 3	3.015291452	2.82E-08
Pglyrp1	NM_009402	peptidoglycan recognition protein 1	1.342177318	7.56E-05
Cd93	NM_010740	CD93 antigen	2.404399156	2.49E-07
Cd2	NM_013486	CD2 antigen	1.250522156	5.93E-05
Ms4a4d	NM_025658	membrane-spanning 4-domains, subfamily A, member 4D	1.089828744	4.39E-05
Olfm1	NM_019498	olfactomedin 1, transcript variant 1	1.134089324	2.19E-05
Cd8b1	NM_009858	CD8 antigen, beta chain 1	4.521213686	3.25E-09
Plaur	NM_011113	plasminogen activator, urokinase receptor	1.545711182	6.44E-06
Gpr146	NM_030258	G protein-coupled receptor 146, transcript variant 1	1.067660721	3.68E-05
Islr2	NM_177193	immunoglobulin superfamily containing leucine-rich repeat 2	1.3272204	4.30E-05
Antxr1	NM_054041	anthrax toxin receptor 1	1.760843385	6.25E-06
Lrp12	NM_172814	low density lipoprotein-related protein 12	1.196149378	9.88E-06
Ebi2	NM_183031	Epstein-Barr virus induced gene 2	1.482759275	2.11E-05
Tlr1	NM_030682	toll-like receptor 1	1.075847613	1.70E-05
Ptpro	NM_011216	protein tyrosine phosphatase, receptor type, O	1.101393203	1.89E-05
Clec2d	NM_053109	C-type lectin domain family 2, member d	1.839022302	2.69E-06
Tnfrsf25	NM_033042	tumor necrosis factor receptor superfamily, member 25	1.99666818	8.39E-07
Csf2rb2	NM_007781	colony stimulating factor 2 receptor, beta 2, low-affinity (granulocyte-macrophage)	1.499594383	1.17E-05
Cd5	NM_007650	CD5 antigen	2.555166265	1.39E-07
Ms4a1	NM_007641	membrane-spanning 4-domains, subfamily A, member 1	2.776099575	9.00E-08
Trem2	NM_031254	triggering receptor expressed on myeloid cells 2	2.698199122	1.28E-07
P2ry6	NM_183168	pyrimidinergic receptor P2Y, G-protein coupled, 6	1.546539672	3.82E-06
Apob48r	NM_138310	apolipoprotein B48 receptor	1.133520728	2.57E-05
Lgals3bp	NM_011150	lectin, galactoside-binding, soluble, 3 binding protein	3.062110407	2.79E-08
Tnfrsf18	NM_009400	tumor necrosis factor receptor superfamily, member 18, transcript variant 1	1.683384668	1.60E-06
Cd300lf	NM_145634	CD300 antigen like family member F	1.350391436	1.63E-05
Mgl1	NM_010796	macrophage galactose N-acetyl-galactosamine specific lectin 1	2.682042334	1.73E-07
Cd3g	NM_009850	CD3 antigen, gamma polypeptide	2.574810437	2.23E-07
Pira3	NM_011090	paired-Ig-like receptor A3	1.818038831	9.98E-07

Other receptors				
Plaur	NM_011113	plasminogen activator, urokinase receptor	1.545711182	6.44E-06
Sidt1	NM_198034	SID1 transmembrane family, member 1	1.025413023	3.43E-05
Celsr1	NM_009886	cadherin EGF LAG seven-pass G-type receptor 1	1.182998658	6.29E-05
Pglyrp2	NM_021319	peptidoglycan recognition protein 2	2.071549444	0.001274368
Antxr1	NM_054041	anthrax toxin receptor 1	1.760843385	6.25E-06
Marco	NM_010766	macrophage receptor with collagenous structure	1.738611882	1.03E-06
Clec2d	NM_053109	C-type lectin domain family 2, member d	1.839022302	2.69E-06
Retnlg	NM_181596	resistin like gamma	1.799267204	4.53E-05
Cd96	NM_032465	CD96 antigen	1.196468788	2.97E-05
Sparc	NM_009242	secreted acidic cysteine rich glycoprotein	1.835381724	2.41E-06
Cd5	NM_007650	CD5 antigen	2.555166265	1.39E-07
Cd6	NM_009852	CD6 antigen, transcript variant 2	1.747161954	1.52E-06
Ms4a1	NM_007641	membrane-spanning 4-domains, subfamily A, member 1	2.776099575	9.00E-08
Cd3d	NM_013487	CD3 antigen, delta polypeptide	3.167400834	2.40E-07
Ltbr	NM_010736	lymphotoxin B receptor	1.11518916	3.49E-05
Lgals3bp	NM_011150	lectin, galactoside-binding, soluble, 3 binding protein	3.062110407	2.79E-08
Cd36	NM_007643	CD36 antigen	1.20768995	1.03E-05
Clec4b1	NM_027218	C-type lectin domain family 4, member b1	1.742032903	2.06E-06
Samsn1	NM_023380	SAM domain, SH3 domain and nuclear localization signals, 1	1.156622628	0.000122193
Marcks	NM_008538	myristoylated alanine rich protein kinase C substrate	1.096768258	3.87E-05
Cd93	NM_010740	CD93 antigen	2.404399156	2.49E-07
Mgl1	NM_010796	macrophage galactose N-acetyl-galactosamine specific lectin 1	2.682042334	1.73E-07
Cd3g	NM_009850	CD3 antigen, gamma polypeptide	2.574810437	2.23E-07
Cd55	NM_010016	CD55 antigen	1.964477252	3.66E-06
Cd68	NM_009853	CD68 antigen	1.193065414	0.000163866
Cd52	NM_013706	CD52 antigen	2.590008998	1.00E-05
Other cytokines				
Ebi2	NM_183031	Epstein-Barr virus induced gene 2	1.482759275	2.11E-05
Cd96	NM_032465	CD96 antigen	1.196468788	2.97E-05
Cd2	NM_013486	CD2 antigen	1.250522156	5.93E-05
Csf3r	NM_007782	colony stimulating factor 3 receptor (granulocyte)	1.073218776	1.80E-05
Ltb	NM_008518	lymphotoxin B	5.958287724	4.08E-10
Tbxa2r	NM_009325	thromboxane A2 receptor	1.192887345	0.000724995
Clmn	NM_053155	calmin, transcript variant 1	1.716848208	4.36E-06
Igfbp7	NM_008048	insulin-like growth factor binding protein 7	2.179429829	2.10E-07
Extracellular matrix glycoproteins				
Cd5	NM_007650	CD5 antigen	2.555166265	1.39E-07
H2-Ab1	NM_207105	histocompatibility 2, class II antigen A, beta 1	2.069209639	7.19E-07
Nid1	NM_010917	nidogen 1	3.209967968	4.50E-08
Ms4a4b	NM_021718	membrane-spanning 4-domains, subfamily A, member 4B	2.99920642	4.22E-07
Sspn	NM_010656	sarcospan	1.57790458	2.65E-06
Gpnmb	NM_053110	glycoprotein (transmembrane) nmb	1.587170566	4.15E-06
Cd244	NM_018729	CD244 natural killer cell receptor 2B4	1.933225205	8.14E-07
Cmtm3	NM_024217	CKLF-like MARVEL transmembrane domain containing 3	1.101322457	2.63E-05
Lilrb3	NM_011095	leukocyte immunoglobulin-like receptor, subfamily B	3.015291452	2.82E-08

		(with TM and ITIM domains), member 3		
Nfam1	NM_028728	Nfat activating molecule with ITAM motif 1	1.304924986	2.66E-05
Emilin2	NM_145158	elastin microfibril interfacer 2	2.680020423	4.84E-08
Clec2d	NM_053109	C-type lectin domain family 2, member d	1.839022302	2.69E-06
Il4i1	NM_010215	interleukin 4 induced 1	1.425045265	1.68E-05
Gprc5b	NM_022420	G protein-coupled receptor, family C, group 5, member B	2.608787576	1.36E-07
H2-Aa	NM_010378	histocompatibility 2, class II antigen A, alpha	2.776006155	6.57E-08

B. 67 (15%) of the 445 genes that are downregulated in disseminated p73-/- EμMyc lymphomas versus p73+/+ EμMyc controls are cell surface genes.

Extracellular matrix				
Lamc1	NM_010683	laminin, gamma 1	-1.762911501	1.72E-06
Amigo1	NM_146137	adhesion molecule with Ig like domain 1	-1.160789815	3.29E-05
Ltbp2	NM_013589	latent transforming growth factor beta binding protein 2	-1.490902118	5.71E-06
Lrig3	NM_177152	leucine-rich repeats and immunoglobulin-like domains 3	-1.077894902	2.65E-05
Lrig1	NM_008377	leucine-rich repeats and immunoglobulin-like domains 1	-2.094950235	1.61E-06
Podxl	NM_013723	podocalyxin-like	-1.680329549	1.27E-06
Nyx	NM_173415	nyctalopin	-1.343258489	5.91E-06
Flrt3	NM_178382	fibronectin leucine rich transmembrane protein 3	-1.985457176	5.16E-07
Itgb5	NM_010580	integrin beta 5	-1.225925633	2.40E-05
Mmp11	NM_008606	matrix metallopeptidase 11	-1.05819589	3.70E-05
Col18a1	NM_009929	procollagen, type XVIII, alpha 1	-1.518685905	2.74E-06
Angptl4	NM_020581	angiopoietin-like 4	-1.07105166	2.79E-05
Sdc4	NM_011521	syndecan 4	-1.236897527	0.000683667
Ttc3	NM_009441	tetratricopeptide repeat domain 3	-1.036396687	4.46E-05
Dusp14	NM_019819	dual specificity phosphatase 14	-1.089521308	4.01E-05
Gpr12	NM_008151	G-protein coupled receptor 12, transcript variant 2	-1.879313852	7.27E-07
Mela	NM_008581	melanoma antigen	-9.397078644	2.21E-11
Tmem100	NM_026433	transmembrane protein 100	-1.352173272	5.69E-06
Adam15	NM_009614	a disintegrin and metallopeptidase domain 15 (metargidin)	-1.960477819	5.94E-07
Adam9	NM_007404	a disintegrin and metallopeptidase domain 9 (meltrin gamma)	-1.021647796	2.37E-05
Cell adhesion molecules				
Ltbp2	NM_013589	latent transforming growth factor beta binding protein 2	-1.490902118	5.71E-06
Pcdh17	NM_001013753	protocadherin 17	-4.075342385	5.23E-08
Itgb5	NM_010580	integrin beta 5	-1.225925633	2.40E-05
Mpzl1	NM_001001880	myelin protein zero-like 1	-2.393867446	5.50E-07
Eva1	NM_007962	epithelial V-like antigen 1	-4.446673022	4.45E-09
F11r	NM_172647	F11 receptor	-1.192540632	1.77E-05
Ssx2ip	NM_138744	synovial sarcoma, X breakpoint 2 interacting protein	-1.160277675	3.58E-05
Tspan5	NM_019571	tetraspanin 5	-1.268586128	0.000120439
Sdc4	NM_011521	syndecan 4	-1.236897527	0.000683667
Tspan3	NM_019793	tetraspanin 3	-1.194873209	1.58E-05

Cell junction protein				
Cldn10	NM_021386	claudin 10	-1.064267249	4.77E-05
Cask	NM_009806	calcium/calmodulin-dependent serine protein kinase (MAGUK family)	-1.272262663	7.39E-06
Inadl	NM_001005787	InaD-like (Drosophila)	-1.027891273	0.001596061
Pkp2	NM_026163	plakophilin 2	-1.354075309	6.43E-06
Magi1	NM_010367	membrane associated guanylate kinase, WW and PDZ domain containing 1	-3.345664488	1.97E-08
Ligands				
Ccl25	NM_009138	chemokine (C-C motif) ligand 25	-1.953769216	5.39E-07
Tgfb2	NM_009367	transforming growth factor, beta 2	-1.612745454	2.51E-06
Gdf1	NM_008107	growth differentiation factor 1	-1.502319504	1.19E-05
Vegfc	NM_009506	vascular endothelial growth factor C	-1.806111463	1.00E-06
Tgfb3	NM_009368	transforming growth factor, beta 3	-2.713145302	8.78E-08
Abtb2	NM_178890	ankyrin repeat and BTB (POZ) domain containing 2	-1.498161247	2.30E-06
Jag2	NM_010588	jagged 2	-1.611450798	3.69E-06
Jag1	NM_013822	jagged 1	-1.672420266	2.49E-06
Receptors				
Klra7	NM_014194	killer cell lectin-like receptor, subfamily A, member 7	-3.880559807	4.38E-09
Klra16	NM_013794	killer cell lectin-like receptor, subfamily A, member 16	-3.386790284	5.03E-08
Igf1r	NM_010513	insulin-like growth factor I receptor	-1.584298157	8.12E-06
Il20rb	NM_001033543	interleukin 20 receptor beta	-1.122137979	2.43E-05
Il15ra	NM_008358	interleukin 15 receptor, alpha chain	-1.331453676	2.51E-05
Acvr2b	NM_007397	activin receptor IIB	-1.145729206	3.01E-05
Ldlr	NM_010700	low density lipoprotein receptor	-1.42121622	3.34E-06
Crlf1	NM_018827	cytokine receptor-like factor 1	-1.266053875	8.99E-06
Celsr2	NM_017392	cadherin EGF LAG seven-pass G-type receptor 2	-1.037866921	2.35E-05
Slamf7	NM_144539	SLAM family member 7	-1.123436952	5.73E-05
Slamf9	NM_029612	SLAM family member 9	-1.202603746	1.06E-05
Fgfrl1	NM_054071	fibroblast growth factor receptor-like 1	-1.398936259	3.74E-05
Other receptors				
Olfr1153	NM_146640	olfactory receptor 1153	-1.147131038	3.09E-05
Gfra1	NM_010279	glial cell line derived neurotrophic factor family receptor alpha 1 (Gfra1)	-1.69674776	1.64E-06
F11r	NM_172647	F11 receptor	-1.192540632	1.77E-05
Acvr2b	NM_007397	activin receptor IIB	-1.145729206	3.01E-05
Ptprs	NM_011218	protein tyrosine phosphatase, receptor type, S	-1.176724131	5.38E-05
Thbd	NM_009378	thrombomodulin	-1.047621976	3.48E-05
Agrin	NM_021604	agrin	-2.474377652	1.74E-07
Itm2a	NM_008409	integral membrane protein 2A	-1.057086066	4.57E-05
Ryk	NM_013649	receptor-like tyrosine kinase	-1.025177632	4.44E-05
Other				
St3gal5	NM_011375	ST3 beta-galactoside alpha-2,3-sialyltransferase 5, transcript variant 2	-1.137483768	1.96E-05
Ankrd6	NM_001012450	ankyrin repeat domain 6, transcript variant 1	-4.218163385	5.45E-09
St7	NM_022332	Suppression of tumorigenicity 7	-1.070185772	2.62E-05
Ssfa2	NM_080558	sperm specific antigen 2	-1.033026393	3.70E-05
Nck2	NM_010879	non-catalytic region of tyrosine kinase adaptor protein 2	-1.138088281	1.46E-05

Mpzl1	NM_001001880	myelin protein zero-like 1	-2.393867446	5.50E-07
Vpreb2	NM_016983	pre-B lymphocyte gene 2	-1.580324941	1.46E-06
Vpreb1	NM_016982	pre-B lymphocyte gene 1	-3.393178138	1.06E-08

Supplemental Table 2.

Primer sequences used for quantitative real time RT-PCR in this paper:

HPRT FW-GGCTATAAGTTCTTTGCTGACC
HPRT RV-CTCCACCAATAACTTTTATGTCC

Aid FW-CGTGGTGAAGAGGAGAGATAGTG
Aid Rv-CAGTCTGAGATGTAGCGTAGGAA

Arf FW-CTTGGTCACTGTGAGGATTCA
Arf RV-CTACGTGAACGTTGCCCATCA

p53 FW- ACAGCGTGGTGGTACCTTAT
p53 RV-GGTTCCCACTGGAGTCTTC

Mdm2 FW-CAGTAGCAGCAGCAGCAGCGA
Mdm2 RV-GCCCTTCGTCACTCAGGCTGT

p21 FW-AGCAAAGTGTGCCGTTGTCT
p21 RV-AGAAATCTGTCAGGCTGGTC

Bax FW-CTGAGCTGACCTTGGAGC
Bax RV-GACTCCAGCCACAAAGATG

Noxa FW-CGTCGGAACGCGCCAGTGAACCC
Noxa RV-TCCTTCCTGGGAGGTCCCTTCTTGC

Puma FW-ATGGCCCGCGCACGCCAGG
Puma RV-CCGCCGCTCGTACTGCGCGTTG

Ccr2 FW-AACAGTGCCCAGTTTTCTATAGG
Ccr2 RV-CGAGACCTCTTGCTCCCCA

Cxcr3 FW-TGCTAGATGCCTCGGACTTT
Cxcr3 RV-CGCTGACTCAGTAGCACAG

Cxcr5 FW-ACTCCTTACCACAGTGCACCTT
Cxcr5 RV-GGAAACGGGAGGTGAACCA

Cxcr6 FW-ATGTTTGCCCCAACAGATG
Cxcr6 RV-CTACAATTGGAACATACTGGTGG

Itgal FW- CCAGACTTTTGCTACTGGGAC
Igtal RV- GCTTGTTCGGCAGTGATAGAG

Itgb7 FW-ACCTGAGCTACTCAATGAAGGA
Itgb7 RV-CACCGTTTTGTCCACGAAGG

Sell FW-TACATTGCCCAAAAGCCCTTAT
Sell RV-CATCGTTCCATTTCCCAGAGTC

Ccr5 FW-TTTTCAAGGGTCAGTTCCGAC
Ccr5 RV-GGAAGACCATCATGTTACCCAC

Ccr6 FW-CCTGGGCAACATTATGGTGGT
Ccr6 RV-CAGAACGGTAGGGTGAGGACA

Ccl5 FW-GCTGCTTTGCCTACCTCTCC
Ccl5 RV-TCGAGTGACAAACACGACTGC

Ccl6 FW-GCTGGCCTCATACAAGAAATGG
Ccl6 RV-GCTTAGGCACCTCTGAACTCTC

Il18r1 FW-ACTTTTGCTGTGGAGACGTTAC
Il18r1 RV-CCGGCTTTTCTCTATCAGTGAAT

Il27ra FW-CTCCTGGGAACCTTTGGGC
Il27ra RV-CGTCCCTTTTGTGTCCCCC

Thy1 FW-TGCTCTCAGTCTTGCAGGTG
Thy1 RV- TGGATGGAGTTATCCTTGGTGTT

VpreB1 FW-GCTGCTGGCCTATCTCACAG
VpreB1 RV-CCAATGTTATGGTCGTTGCTCA

Ryk FW-GGTCTTGATGCAGAGCTTTACT
Ryk RV-CCCATAGCCACAAAGTTGTCTAC

Thbd FW- CTCTCCGCACTAGCCAAGC
Thbd RV- GGAGCGCACTGTCATCAAATG

Ankrd6 FW-GTCGCTGCGCTTTCAGAAC
Ankrd6 RV-CTTGGTAACGGCTACCTTGGC

St7 FW-AGGAACCCTCAAGCCAGGATT
St7 RV-GGTAGAGGAAGCAATTAGGGGA

Itm2a FW-AGGCGCGGCAAGATATAGAG
Itm2a RV-GTCCTGCCAAGATGAATGAGAG

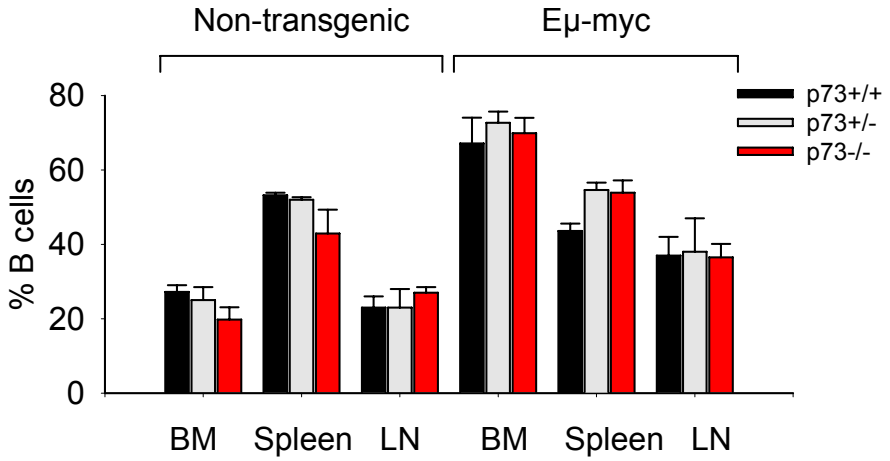
Zyx FW-CAGGGAGAAAGTGTGCAGTATT
Zyx RV-TCGTTCTTGGTCATGTCGTCC

Ifitm3 FW-CCCCCAAACTACGAAAGAATCA
Ifitm3 RV-ACCATCTTCCGATCCCTAGAC

Csf3r FW-CTGATCTTCTTGCTACTCCCCA
Csf3r RV-GGTGTAGTTCAAGTGAGGCAG

Relative expression of the target genes was calculated using the ΔCT method described previously: Relative expression = $2^{-\Delta CT}$, where ΔCT = CT (Target gene) - CT (HPRT).

A



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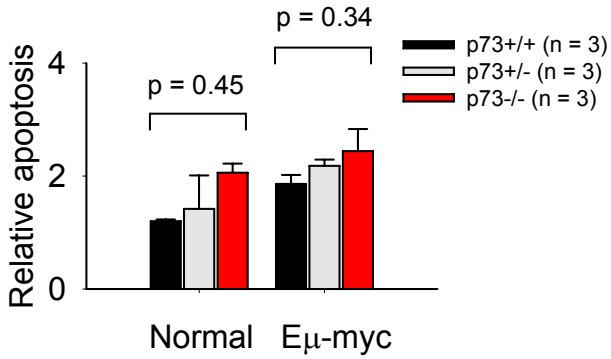

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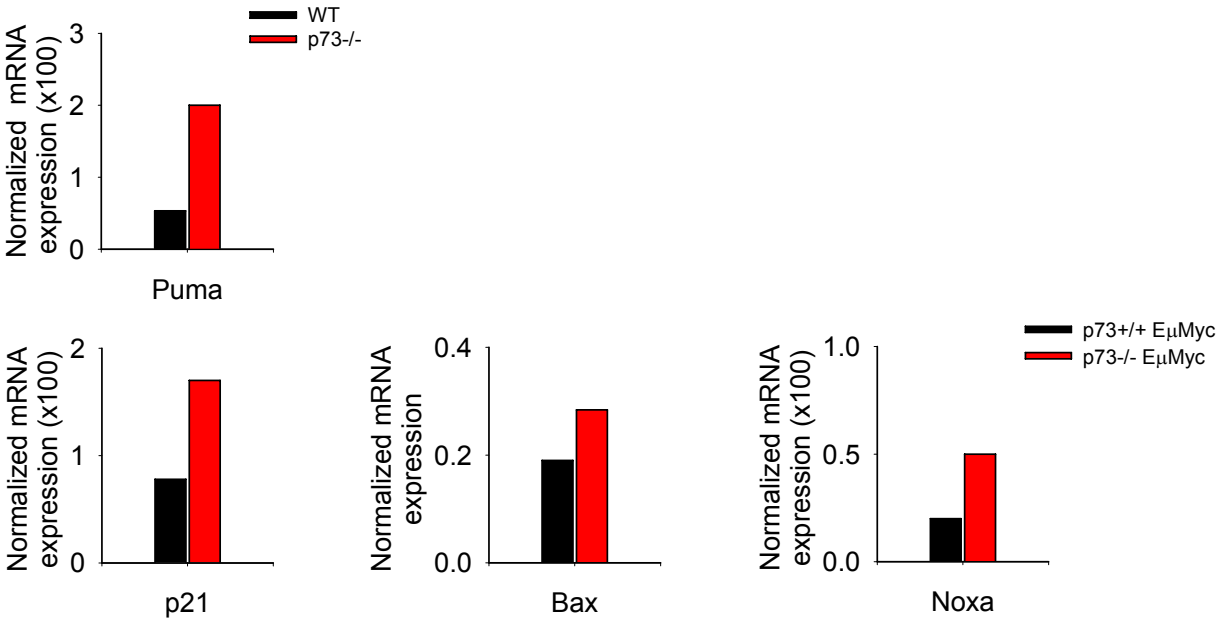
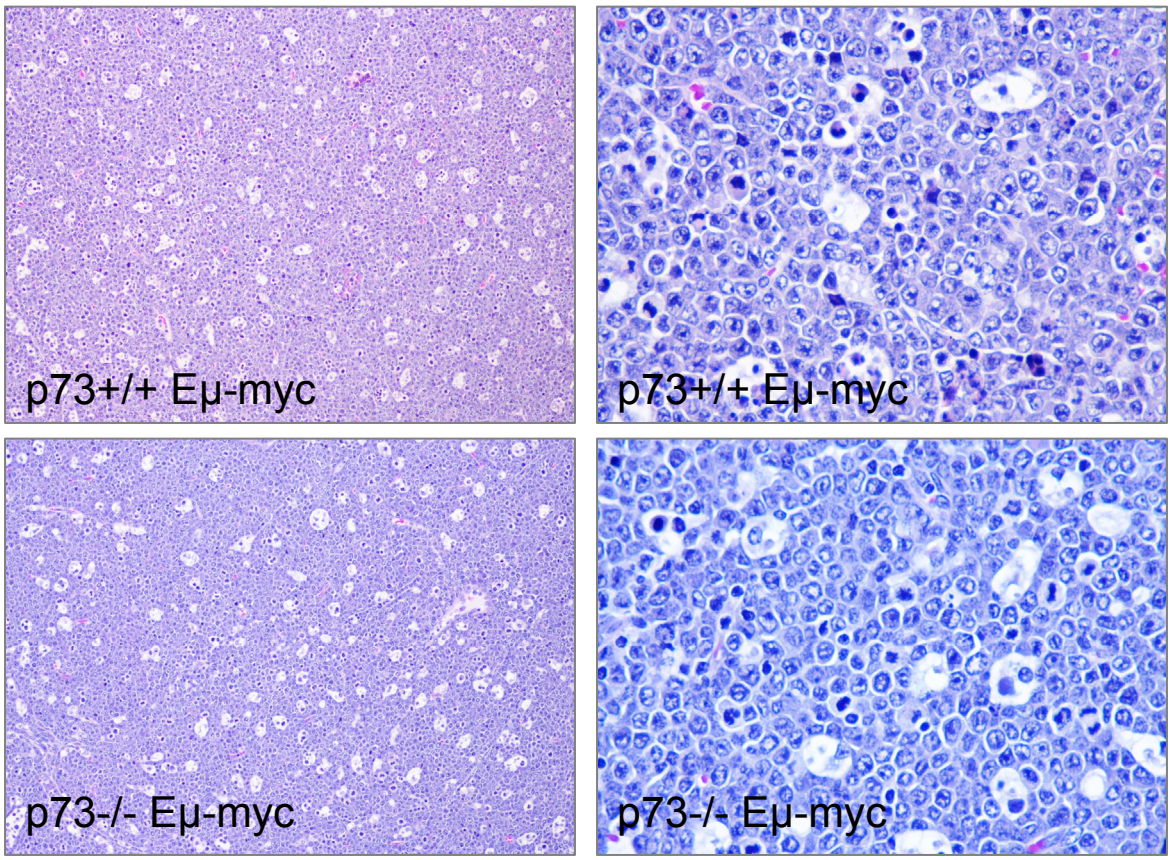


Nemajerova et al., Suppl. Figure 1

Lymph nodes: 10x

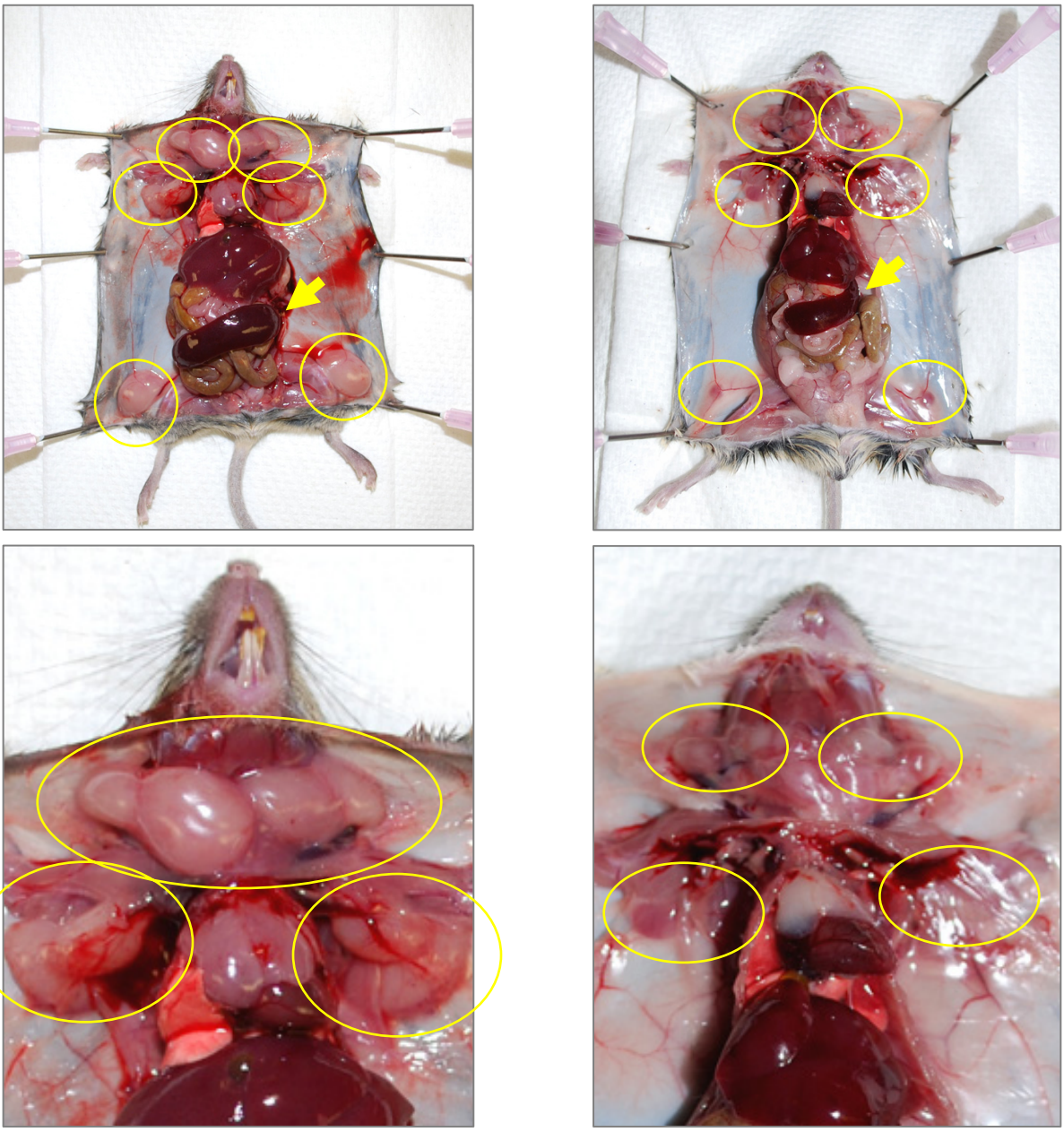
Lymph nodes: 40x



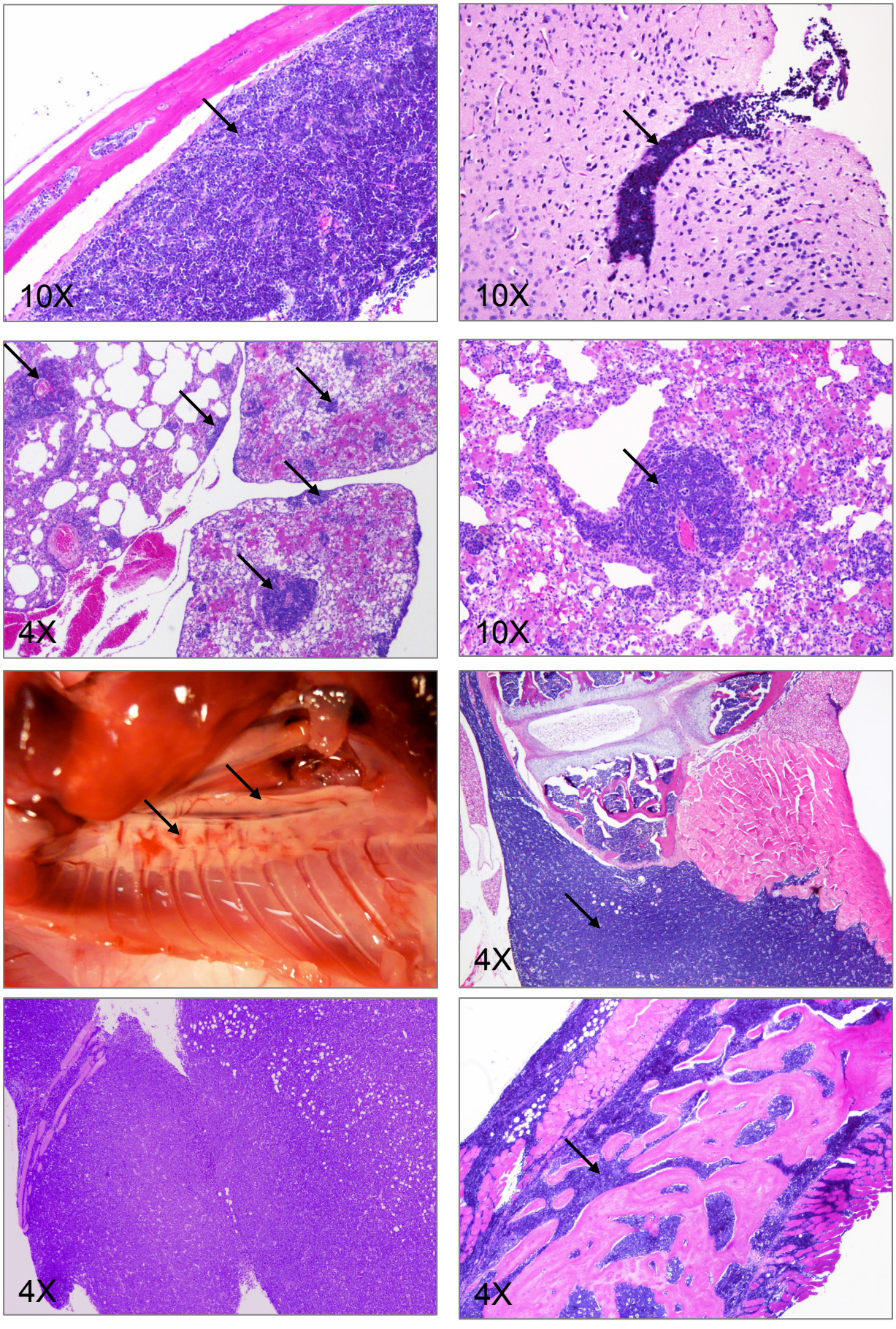
Nemajerova et al., Suppl. Figure 2

p73+/+ Eμ-myc

p73-/- Eμ-myc



Nemajerova et al., Suppl. Figure 3

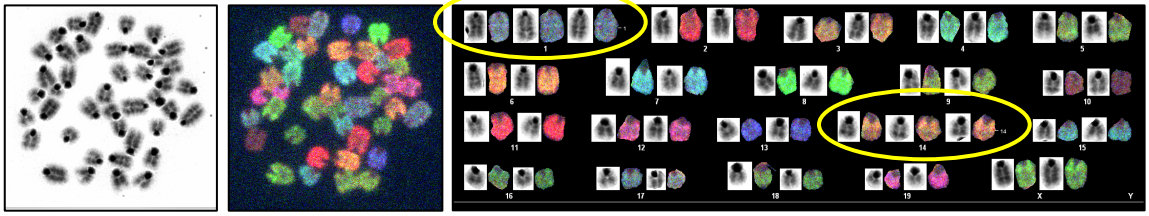


Nemajerova et al., Suppl. Figure 4

Tumor #73
p73+/+ Eμ–myc

Out of 9 metaphases:
6 – tri(14);
2 – tri(1), tri(14)
1 – normal;

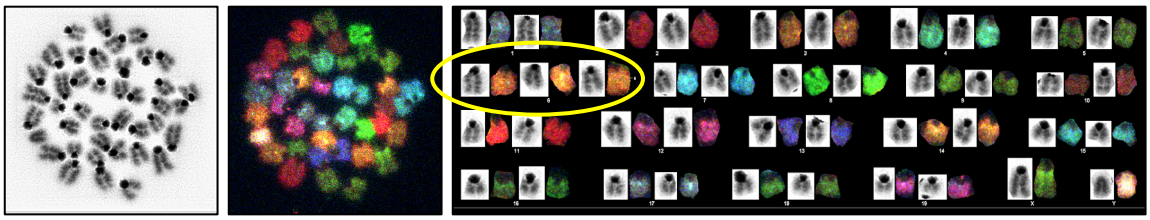
42XX tri(1), tri(14)



Tumor #378
p73+/- Eμ–myc

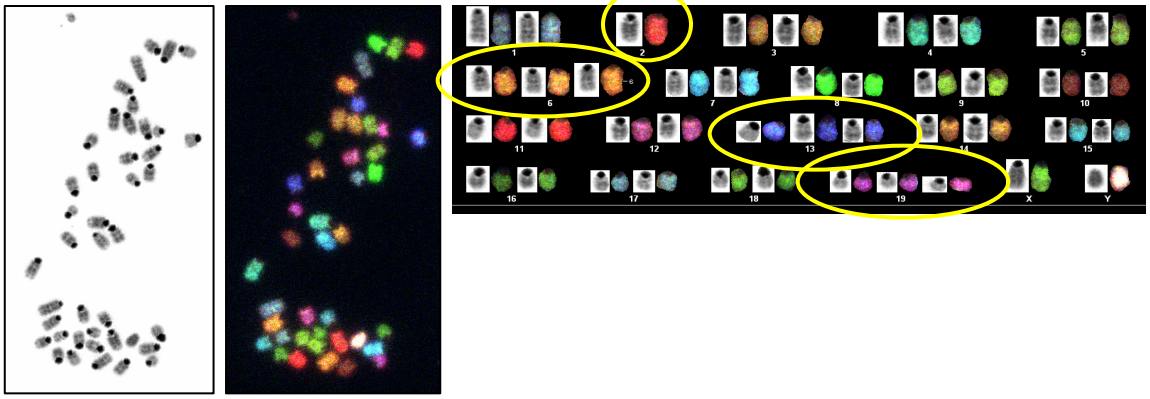
Out of 9 metaphases:
7 – tri(6);
1 – del(2), tri(6);
1 – del(2), tri(6), tri(13), tri(14)

41XY tri(6)



Tumor #378
p73+/- Eμ–myc

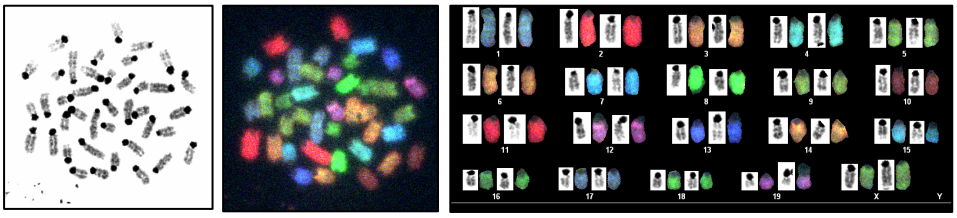
42XY del(2), tri(6), tri(13), tri(19)



Tumor #164
p73-/- Eμ–myc

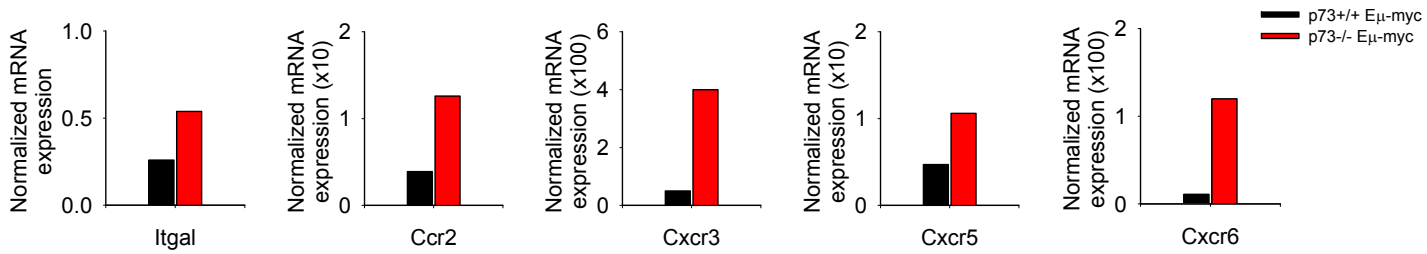
Out of 24 metaphases:
22 – normal
1 – tri(14)
1 – tri(14); tri(15)

42XX

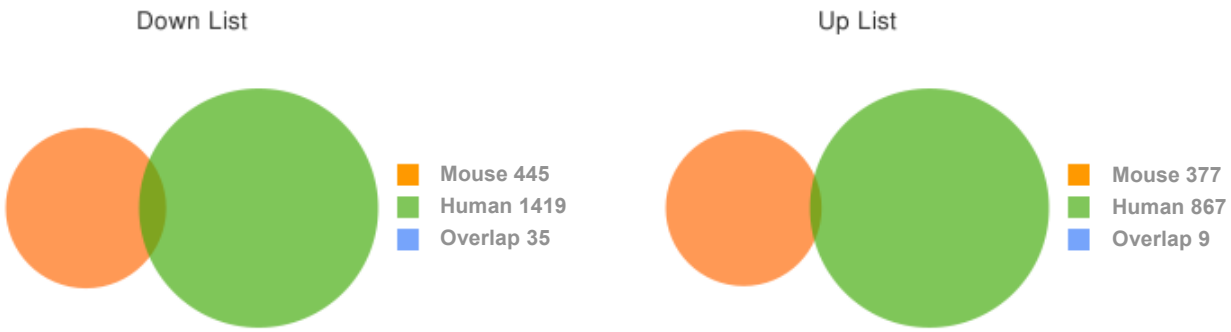


Nemajerova et al., Suppl. Figure 5

A



B



Nemajerova et al., Suppl. Figure 6