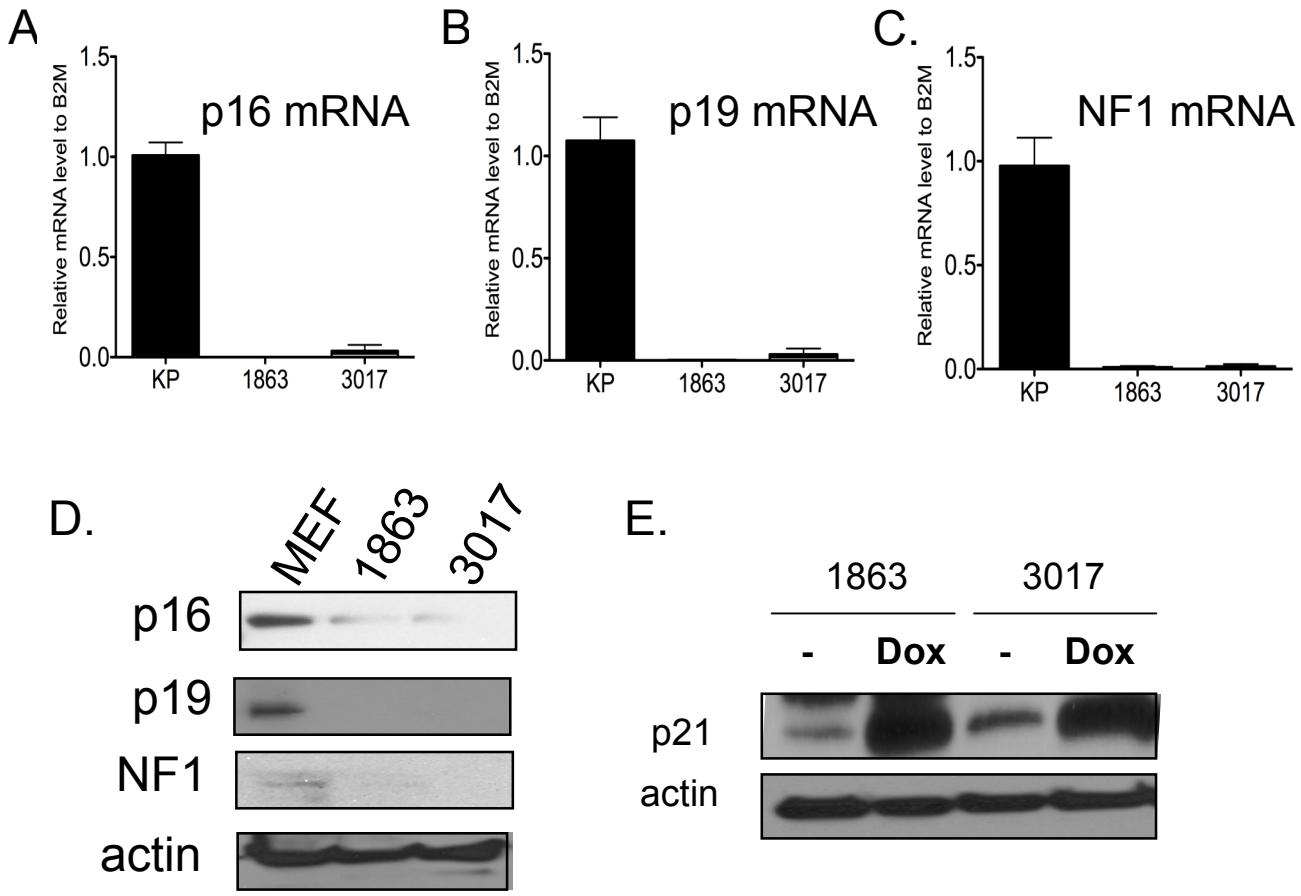
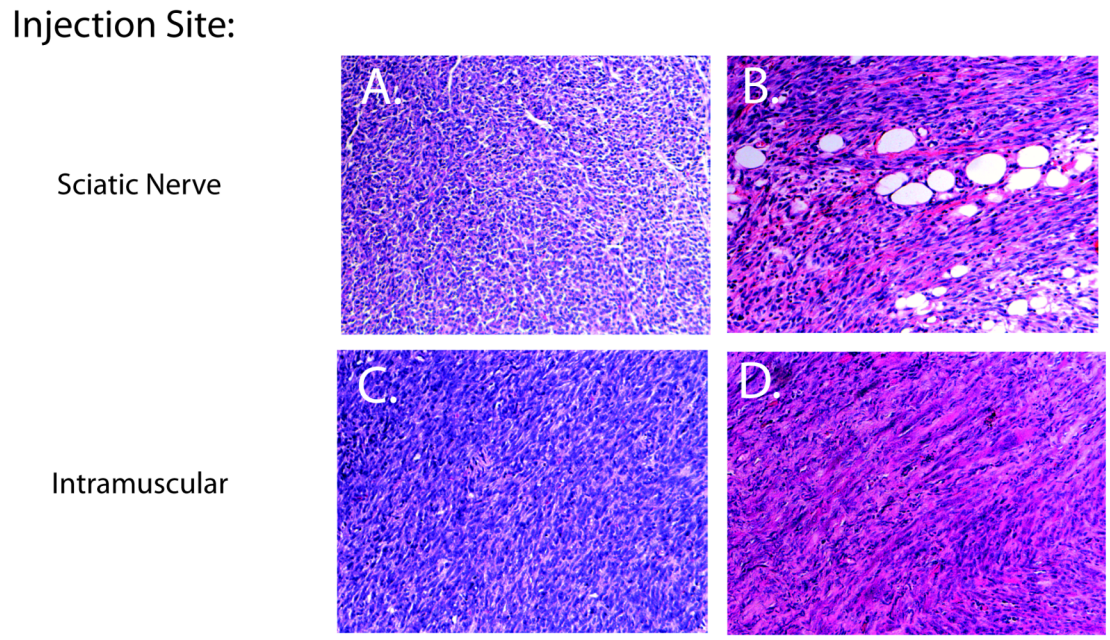
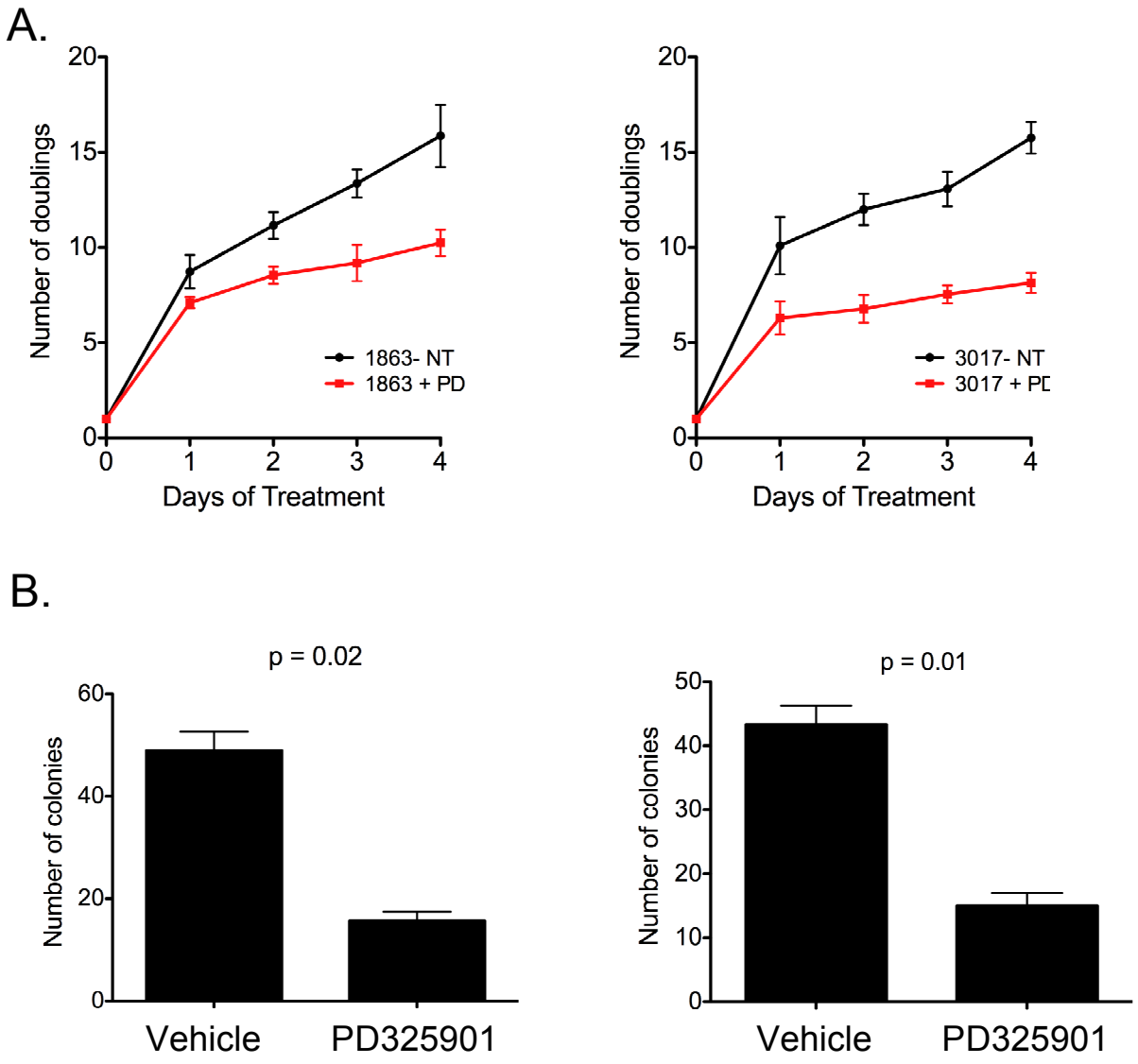


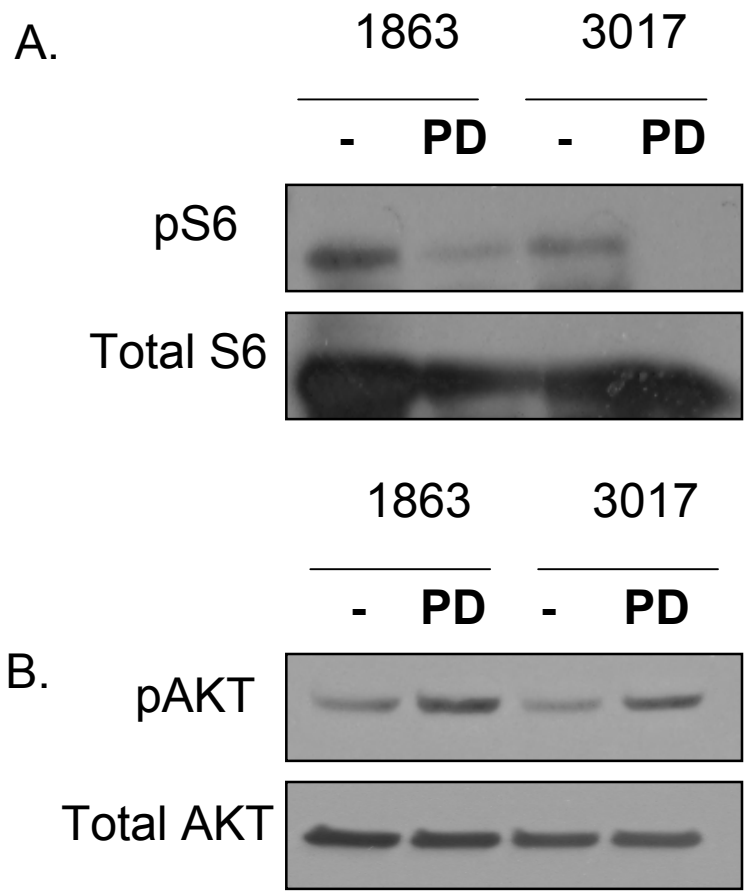
Supplemental Figure 1: Sarcomas generated from NF1$^{flox/flox}$; Ink4a/Arf$^{flox/flox}$ lose p16, p19, and NF1 expression, but maintain an intact p53-dependent DNA damage response. (A-C) Real-time PCR analysis of mRNA from cell lines derived from Ad-Cre generated sarcomas from either an LSL-Kras^{G12D}; p53$^{flox/flox}$ mice (KP) or NF1$^{flox/flox}$; Ink4a/Arf$^{flox/flox}$ mice (1863 and 3017). Each bar represents an average of three independent experiments. Expression of p16, p19, and NF1 is lost in cells derived from sarcomas in NF1$^{flox/flox}$; Ink4a/Arf$^{flox/flox}$ mice. (D) Loss of p16, p19, and NF1 is also seen via western blot, in comparison to MEFs. (E). NF1/p16/p19-deleted sarcoma cell lines maintain an intact p53-DNA damage response, shown by p21 upregulation following doxorubicin treament to cell lines. This suggests that the p53 locus is wild-type within the NF1$^{flox/flox}$; Ink4a/Arf$^{flox/flox}$ mice.



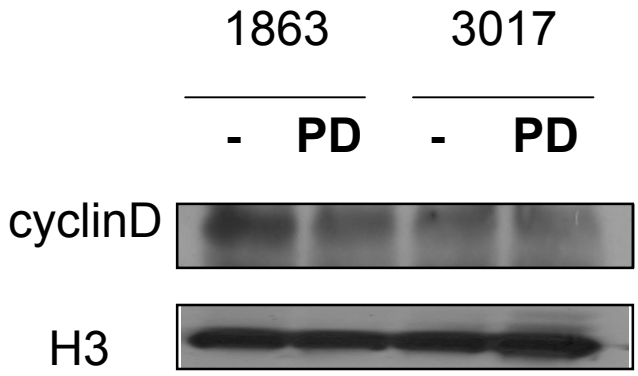
Supplemental Figure 2: Range of histological phenotypes observed in NF1 flox/flox; Ink4a/Arf flox/flox mice following injection of Ad-Cre. Injection of Ad-Cre into the sciatic nerve results in tumors with spindle-cell patterns (A), some of which contain lipoblasts (B). Injection of Ad-Cre into the muscle results in tumors with spindle cell patterns, some of which resemble high-grade UPS (C) and others that have rhabdomyoblasts, which are more similar to RMS (D).



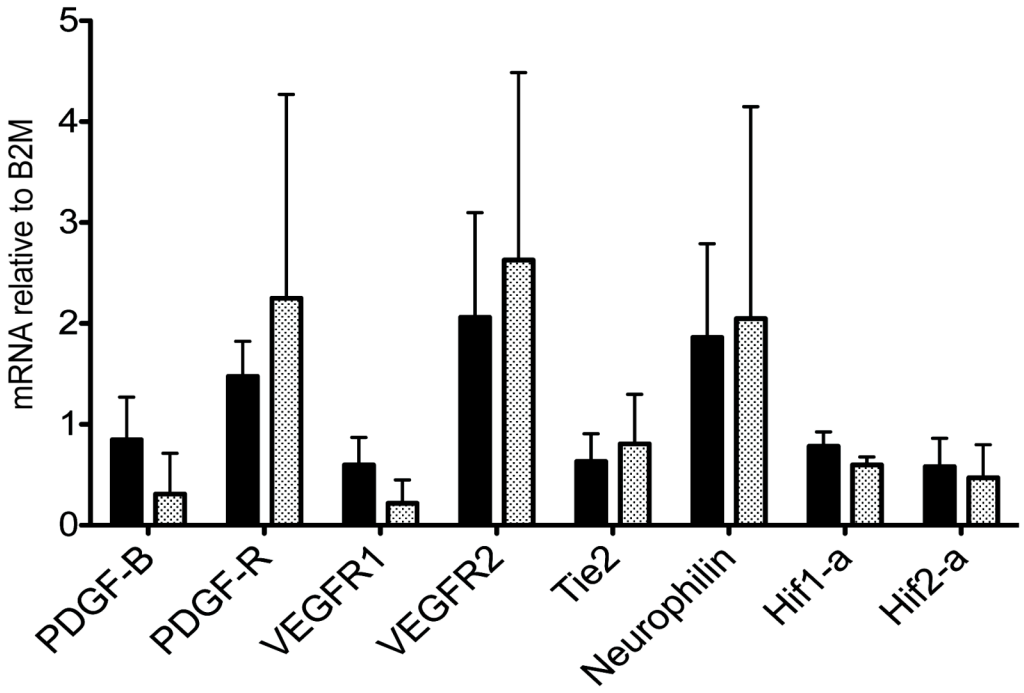
Supplemental Figure 3. PD325901 treatment delays growth and colony formation in NF1-deleted sarcoma cells. (A) Cell proliferation assay of 1863 (left) and 3017 (right) cells treated with 50nM PD325901 (red) or DMSO (black) throughout growth. (B) Colony formation assay of 1863 (left) and 3017 (right) cells pre-treated with PD325901, followed by re-seeding in either DMSO or 50nM PD325901.



Supplemental Figure 4: Protein levels of signaling molecules following treatment with PD325901. (A) Western blot shows that phospho-S6 levels decrease following a 4 hour treatment of NF1-deleted cell lines with PD325901. (B) Levels of phospho-AKT are slightly elevated in cell lines treated with PD325901. Protein levels of total S6 and total AKT are shown as loading controls.



Supplemental Figure 5: PD325901 treatment decreases levels of cyclin D1 protein in NF1-deleted sarcoma cells lines. Following 8 hours of PD325901 incubation, cells from $NF1^{flox/flox}$; $Ink4a/Arf^{flox/flox}$ tumors show lower levels of cyclin D1. Loading control of histone H3 is shown.



Supplemental Figure 6: Angiogenesis-related genes in vehicle (black bar) and PD325901-treated (shaded bar) NF1-deleted myogenic sarcomas.

Ink4a/Arf multiplex with three primers:		
	Forward	Reverse
	TTG TTG GCC CAG GAT GCC GAC ATC	GTT TCC ATT GCG AGG CTG CTC CGT AAG C
		CCA AGT GTG CAA ACC CAG GCT CC
	Unrecombined = 180 bp	
	Recombined = 210 bp	

Supplemental Table 1. Primers used for detection of Ink4a/Arf allele recombination.

Primer Sequences		
	Forward	Reverse
VEGF 120	GCCAGCACATAGAGAGAATGAGC	CGGCTTGTCACATTTTTCTGG
VEGF 165	GCCAGCACATAGAGAGAATGAGC	CAAGGCTCACAGTGATTTTCTGG
VEGF 188	GCCAGCACATAGAGAGAATGAGC	AACAAGGCTCACAGTGAACGCT
Angpt 1	GGGGGAGGTTGGACAGTAA	CATCAGCTCAATCCTCAGC
Angpt 2	GATCTTCCTCCAGCCCCTAC	TTTGTGCTGCTGTCTGGTTC
Tie2/Tek	TGGAGTCAGCTTGCTCCTTT	ACCTCCAGTGGATCTTGGTG
VEGFR-1	GAGGAGGATGAGGGTGTCTATAGGT	GTGATCAGCTCCAGGTTTGACTT
VEGFR-2	GCCCTGCTGTGGTCTCACTAC	CAAAGCATTGCCCATTCGAT
PDGFB	ACTCCATCCGCTCCTTTGAT	GTCTTGCACTCGGCGATTA
PDGFR	CAACCGTACCTTGGGTGACT	GAGAGCTGGACCTCATCGTC
Neuropilin	TCTGTGGGAAGATTGCACCTT	CCCCATGTGTCTCATAGTCAGAG

Supplemental Table 2. List of primers used in real-time quantitative PCR experiments.