Fig. S3

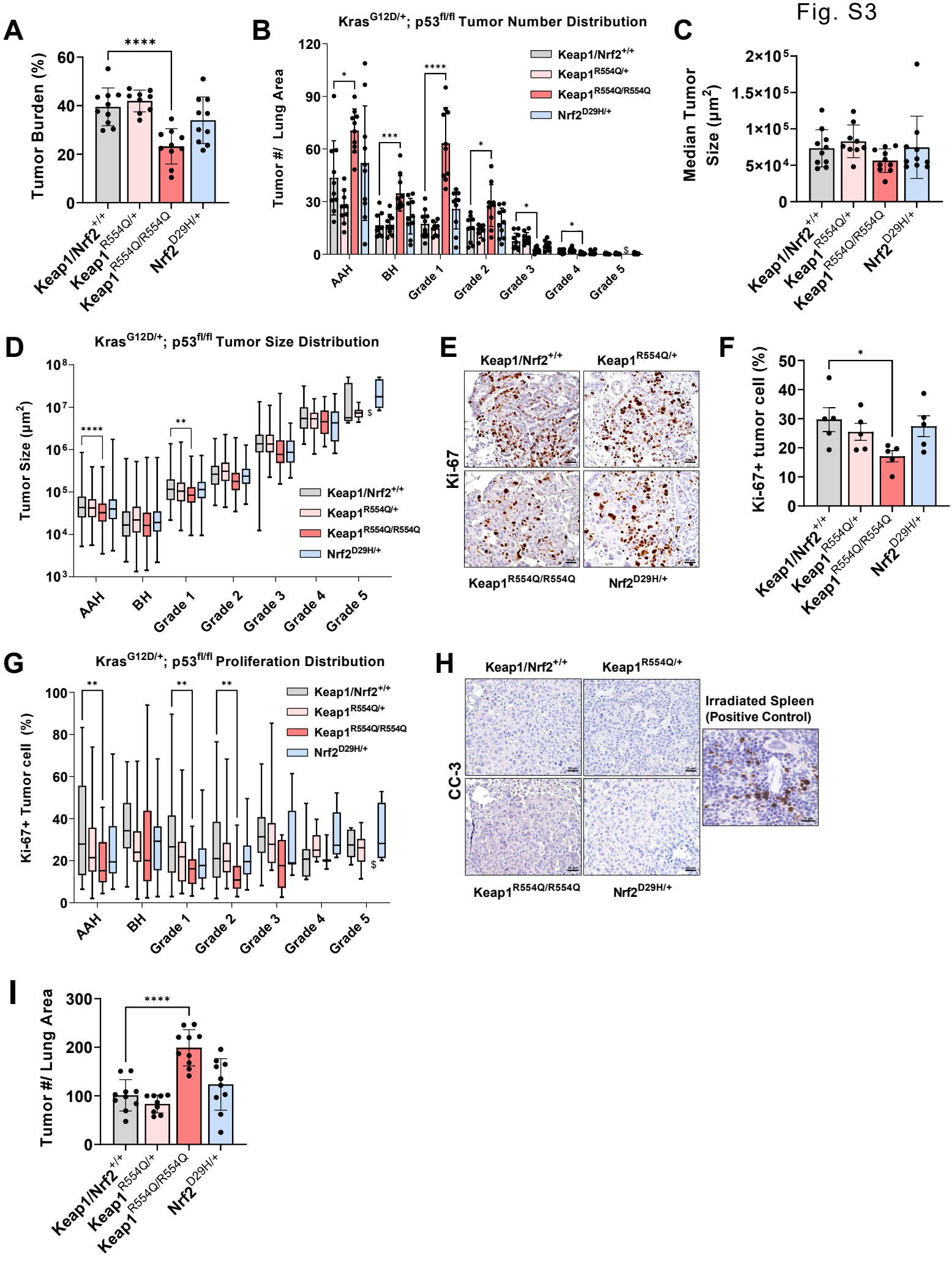
A
Tumor Burden (%)
****
Keap1/Nrf2+/+
Keap1R554Q/+
Keap1R554Q/R554Q
Nrf2D29H/+
B
KrasG12D/+; p53fl/fl Tumor Number Distribution
Tumor #/ Lung Area
Keap1/Nrf2+/+
Keap1R554Q/+
Keap1R554Q/R554Q
Nrf2D29H/+
AAH
BH
Grade 1
Grade 2
Grade 3
Grade 4
Grade 5
C
Median Tumor Size (μm2)
D
KrasG12D/+; p53fl/fl Tumor Size Distribution
Tumor Size (μm2)
E
Keap1/Nrf2+/+
Keap1R554Q/+
Ki-67
Keap1R554Q/R554Q
Nrf2D29H/+
F
Ki-67+ tumor cell (%)
G
KrasG12D/+; p53fl/fl Proliferation Distribution
Ki-67+ Tumor cell (%)
H
Keap1/Nrf2+/+
Keap1R554Q/+
CC-3
Irradiated Spleen
(Positive Control)
Keap1R554Q/R554Q
Nrf2D29H/+
I
Tumor #/ Lung Area

Figure S3. Lung tumor analysis and tumor cell proliferation/ death in the $Kras^{G12D/+}$; $p53^{fl/fl}$ model with Keap1/Nrf2 mutation. (A) Overall tumor burden (%) calculated by dividing the total area of lung tumor by the total area of the lung. *p<0.05 (one-way ANOVA). **(B)** Distribution of tumor number by grade across Keap1/Nrf2 mutant models. N≥9 mice per genotype, *p<0.05 (unpaired t test with Holm-Sidak's multiple comparisons test). $ = fewer than 3 tumors detected across all mice. **(C)** Median tumor size per mouse for each genotype. *p<0.05 (one-way ANOVA). **(D)** Tumor size by grade across all mice per genotype. N≥9 mice and ≥1,900 tumors per genotype. *p<0.05 (Kruskal-Wallis test with Dunn's multiple comparisons test). $ = fewer than 3 tumors detected across all mice. **(E)** Representative immunohistochemical (HC) staining of Ki-67 (scale bars = 20 μM). **(F)** Proportion of tumor cells positive for Ki-67 per mouse. *p<0.05 (one-way ANOVA). **(G)** Percentage of Ki-67 positive tumor cells in each tumor grade per genotype. N=5 mice per genotype, >20,000 tumor cells per mouse. *p<0.05 (unpaired t test with Holm-Sidak's multiple comparisons test). $ = fewer than 3 tumors detected across all mice. For **(B)**, **(D)**, and **(G)**, only one grade 5 tumor was found in the $Keap1^{R554Q/R554Q}$ cohort, and therefore was excluded from these analyses. **(H)** Representative immunohistochemical (IHC) staining of cleaved caspase-3 (CC-3) (scale bars = 20 μM). N=5 mice per genotype. Positive control is BL6 mouse spleen 1 hour after irradiation with 7.5 Gy (scale bar = 10 μM). **(I)** Tumor number per mouse in Keap1/Nrf2 mutant models normalized to lung area. *p<0.05 (one-way ANOVA).