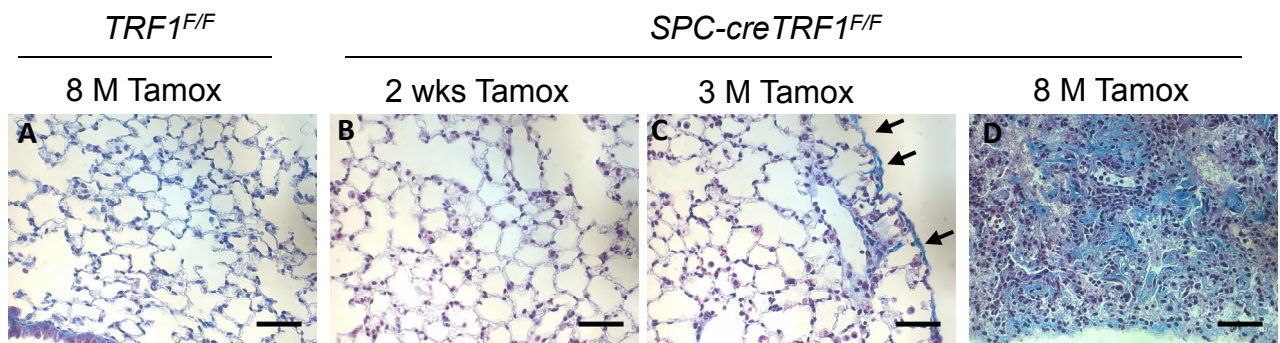


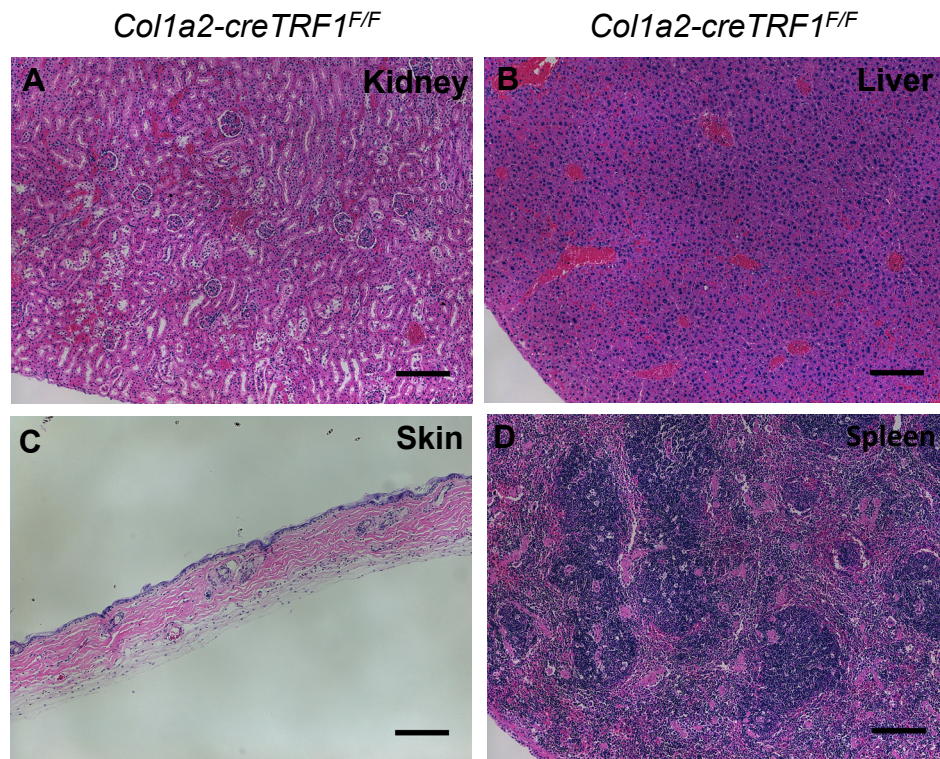
Supplemental Figure S1



Supplemental Figure S1. Masson's Trichrome staining on lung sections (A-D).

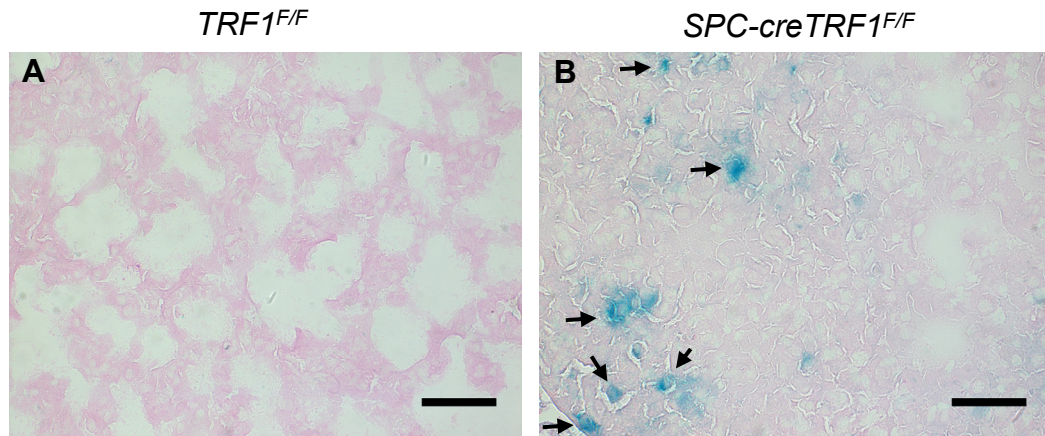
Trichrome staining of lung sections from *SPC-creTRF1^{F/F}* mice (2 weeks, 3 months and 8 months post tamoxifen administration) and *TRF1^{F/F}* mice (8 months post tamoxifen). Magnification 40X. Scale bar 50um. Note the blue collagen fiber deposition in panel C marked by arrows and in panel D.

Supplemental Figure S2



Supplemental Figure S2. Telomere dysfunction in mesenchymal cells shows no evidence of pathology in kidney, liver, spleen and skin. H&E staining of **(A)** Kidney **(B)** Liver **(C)** Skin and **(D)** Spleen sections from *Col1a2-creTRF1^{F/F}* mice 48 hours after injection with tamoxifen (250 mg/kg body weight) show no pathologic abnormality. Magnification 10X. Scale bar 300um.

Supplemental Figure S3



Supplemental Figure S3. Cytochemical detection of SA-β-gal staining (A-B). SA-β-gal staining of frozen lung sections from *SPC-creTRF1^{F/F}* mice and *TRF1^{F/F}* mice (8 months post tamoxifen). Magnification 40X. Scale bar 50 μm. Blue stained cells marked by black arrows are present in *SPC-creTRF1^{F/F}* lungs and not *TRF1^{F/F}* lungs.

Supplemental Table 1

CD45 Positive gate	Cell type	<i>TRF1^{F/F}</i>	<i>SPC-cre TRF1^{F/F}</i>
		Mean ± SEM	Mean ± SEM
	CD45 positive (Leukocytes)	30.07±3.75	44.43±10.08
	CD3 positive (T-cells)	4.34±0.72	6.680±1.51
	CD16/32 positive (B-cells)	2.71±0.46	4.36±0.88
	Collagen and CXCR4 positive (Fibrocytes)	0.92±0.28	1.06±0.43
	CD206 positive (Macrophages)	3.05±0.38	3.98±0.29
	IL21R positive (Th-17 cells)	0.66±0.04	0.90±0.15

Supplemental Table 1. Immunophenotyping of mouse lungs from *SPC-creTRF1^{F/F}* mice and *TRF1^{F/F}* mice by flow cytometry. Whole lung cell suspension prepared as described in methods was analyzed by flow cytometry. Analysis was done on lungs from *SPC-creTRF1^{F/F}* mice and *TRF1^{F/F}* mice (8 months post tamoxifen administration). Data was quantified as percentage of total cells analyzed. N=3 mice per group. Data was not significantly different between the two groups. *t*-test.

Supplemental Table 2

	Cell type	<i>TRF1^{F/F}</i>	<i>Col1a2cre TRF1^{F/F}</i>
		Mean ± SEM	Mean ± SEM
CD45 Neg	Collagen Positive cells	17.75 ± 3.550	13.47 ± 1.738
CD45 Pos	CD45 positive cells	34.89 ± 1.94	37.56 ± 5.08
	CD3 positive (T-cells)	7.77 ± 1.3	7.6 ± 2.02
	CD16/32 positive (B-cells)	2.55 ± 0.85	3.08 ± 0.09
	Collagen positive (Fibrocytes)	0.52 ± 0.25	0.55 ± 0.15
	F4/80 positive (Macrophages)	5.97 ± 0.13	5.2 ± 0.54

Supplemental Table 2. Immunophenotyping of mouse lungs from *Col1a2-creTRF1^{F/F}* mice and *TRF1^{F/F}* mice by flow cytometry. Whole lung cell suspension prepared as described in methods was analyzed by flow cytometry. Analysis was done on lungs from *Col1a2-creTRF1^{F/F}* mice and *TRF1^{F/F}* mice (48 hours post tamoxifen administration). Data was quantified as percentage of total cells analyzed. N=3 mice per group. Data was not significantly different between the two groups. *t*-test.