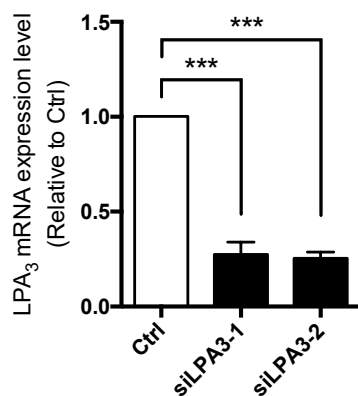
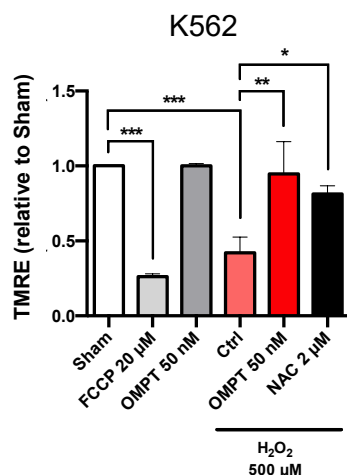


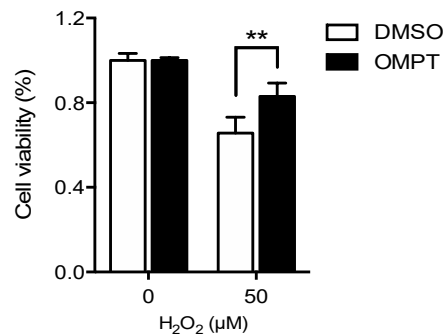
# Lysophosphatidic Acid Receptor 3 Promotes Mitochondrial Homeostasis against Oxidative Stress: Potential Therapeutic Approaches for Hutchinson–Gilford Progeria Syndrome



**Figure S1.** The knockdown efficiency of LPA<sub>3</sub> siRNA. LPA<sub>3</sub> mRNA expression level was measured using real-time PCR and relative to siRNA control. The expression level of GAPDH was used as a loading control. The bar graph was generated from three independent analyses. \*\*\*, P < 0.001.



**Figure S2.** LPA<sub>3</sub> protected against oxidative stress-induced mitochondrial  $\Delta\Psi_m$  loss in K562 cells. K562 cells showed decreased mitochondria  $\Delta\Psi_m$  under 500  $\mu\text{M}$  of  $\text{H}_2\text{O}_2$  treatment. 50 nM of OMPT and 2  $\mu\text{M}$  of NAC protected cells against  $\text{H}_2\text{O}_2$ -induced mitochondria  $\Delta\Psi_m$  loss. FCCP was used as a positive control for loss of mitochondria  $\Delta\Psi_m$ . The bar graphs were generated from three independent analyses. \*, P < 0.05; \*\*, P < 0.01; \*\*\*, P < 0.001.



**Figure S3.** LPA<sub>3</sub> improved cell viability from  $\text{H}_2\text{O}_2$  induced oxidative stress. HSF cells were subjected to a cell proliferation assay under 50  $\mu\text{M}$  of  $\text{H}_2\text{O}_2$  for 72 hr. 50 nM of OMPT showed protective effects against  $\text{H}_2\text{O}_2$ . The bar graphs were generated from three independent analyses. \*\*, P < 0.01.