SUPPLEMENTARY MATERIALS

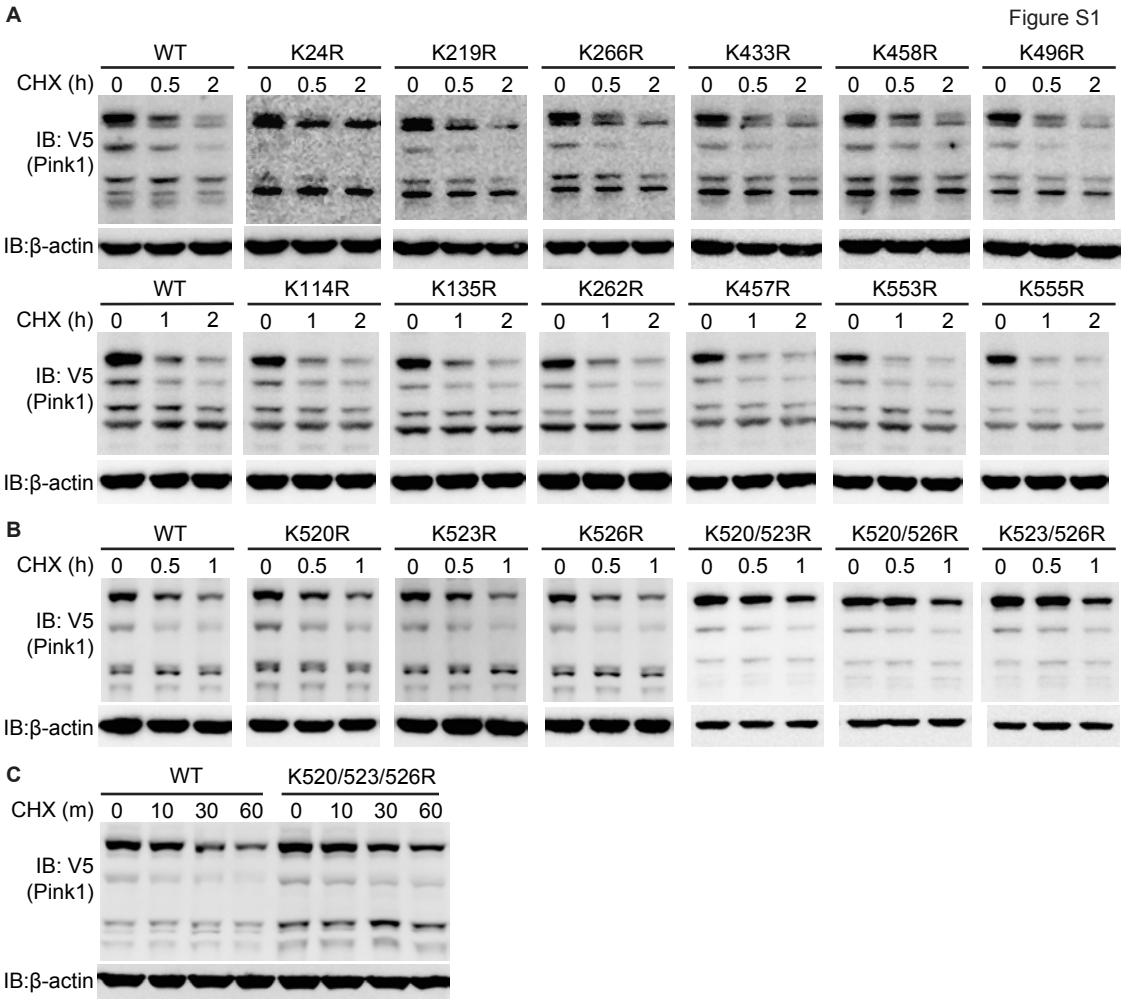


Fig. S1. Identification of PINK1 ubiquitin acceptor sites.
(A-C) Murine lung epithelia 12 (MLE12) cells were nucleofected with indicated single, double or triple lysine to arginine mutant plasmids and incubated for 48 h before the addition of CHX. Cells were collected at the indicated time points and cell lysates were subjected to immunoblotting analysis.

Table S1. Mass spectrometric analysis of PINK1 binding partners.

| Gene Name | Protein Name | GFP PSM | PINK1-GFP PSM | Log2 Ratio (PINK1-GFP/GFP) |
|---|---|---|---|---|
| MSH2 | mutS homolog 2, colon cancer, nonpolyposis type 1 | 0 | 24 | 5.614709844 |
| FBXO7 | F-box protein 7 | 0 | 7 | 3.906890596 |
| PTGES3 | prostaglandin E synthase 3 | 0 | 7 | 3.906890596 |
| HSP90AA1 | heat shock 90kDa protein 1, alpha isoform 1 | 38 | 195 | 2.344238257 |
| CDK1 | cyclin-dependent kinase 1 | 4 | 15 | 1.784271309 |

List of putative and previously described PINK1-interacting proteins identified by a label-free mass spectrometry screen of GFP and PINK1-GFP immunoprecipitation products. The peptide-spectral match (PSM) counts are shown, and the $\log_2$ protein ratios calculated from normalized PSM counts. References for known direct or functional/genetic interactions confirmed in this screen include: (67); (26); (68); (69)

Figure S2

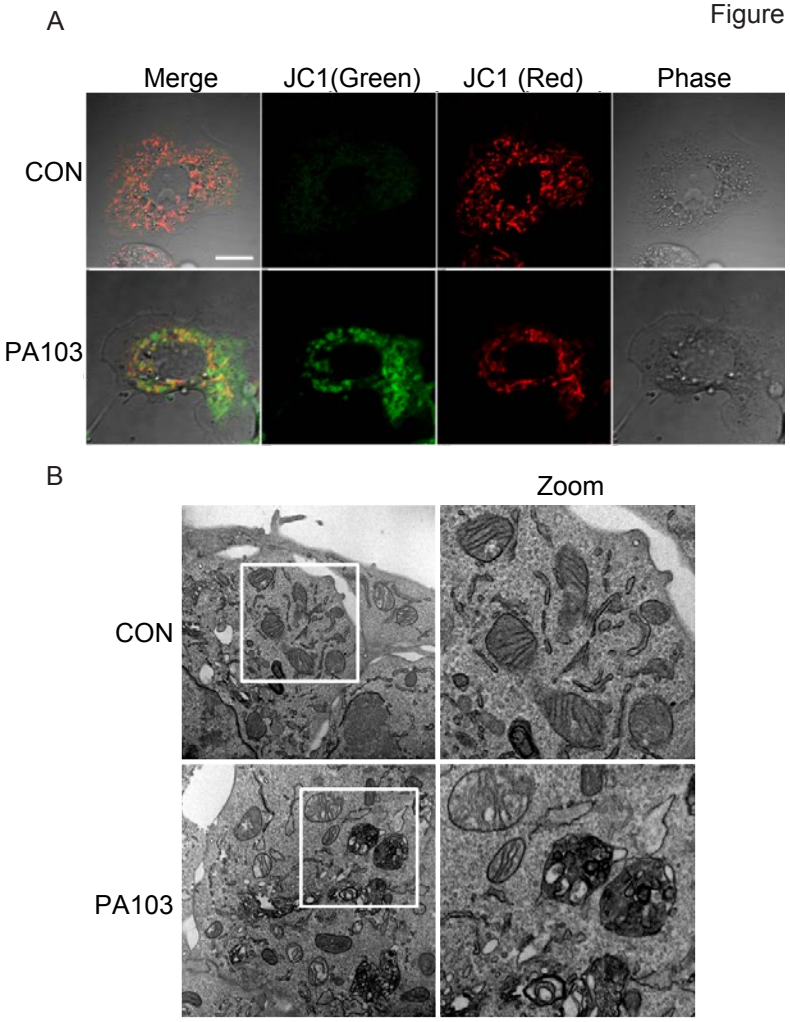


Fig. S2. P. aeruginosa infection injures mitochondria.
(A) BEAS-2B cells were exposed to a virulent strain of P. aeruginosa (PA103, multiplicity of infection (MOI=10)) for 90 min. The cells were then stained with JC1 (2 μM) for additional 20 min before confocal microscopic analysis. (B) MLE12 cells were exposed to PA103 (MOI=10) for 8 h, cells were washed and fixed for transmission electron microscopy.

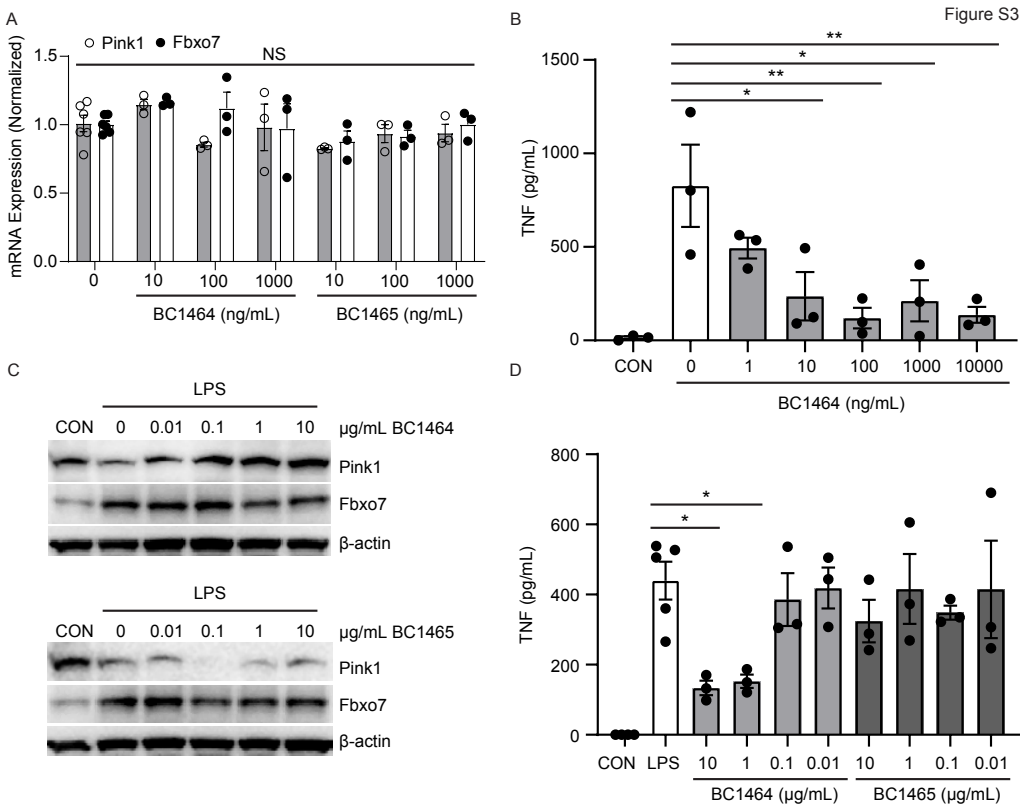


Fig. S3. BC1464 preserves PINK1 protein and inhibits pro-inflammatory TNF-a release in vitro. (A) MLE cells were incubated with BC1464 or BC1465 at indicated concentrations for 16 h. Steady-state mRNA was analyzed by quantitative real-time PCR using PINK1, Fbxo7 primers and normalized to GAPDH. Data and means ± SEM (n=3-6) (B) PBMCs were pretreated with BC1464 at indicated concentrations for 2 h before an additional 4 h treatment with LPS (10ng/ml). TNF-a secretion was measured using an ELISA. Data and means ± SEM (n=3) (C) Human lung slices were treated with BC1464 or BC1465 for 4 h at the indicated concentrations before they were challenged with LPS (100 ng/ml) for an additional 4 h. Lung slices were collected for immunoblotting and supernatant was collected for TNF-a ELISA analysis in (D). Data and means ± SEM (n=3-5). NS, P>0.05, *P ＜0.05, **P < 0.01, as indicated by one-way ANOVA with Tukey's test of multiple comparisons (A-B,D).

Figure S4

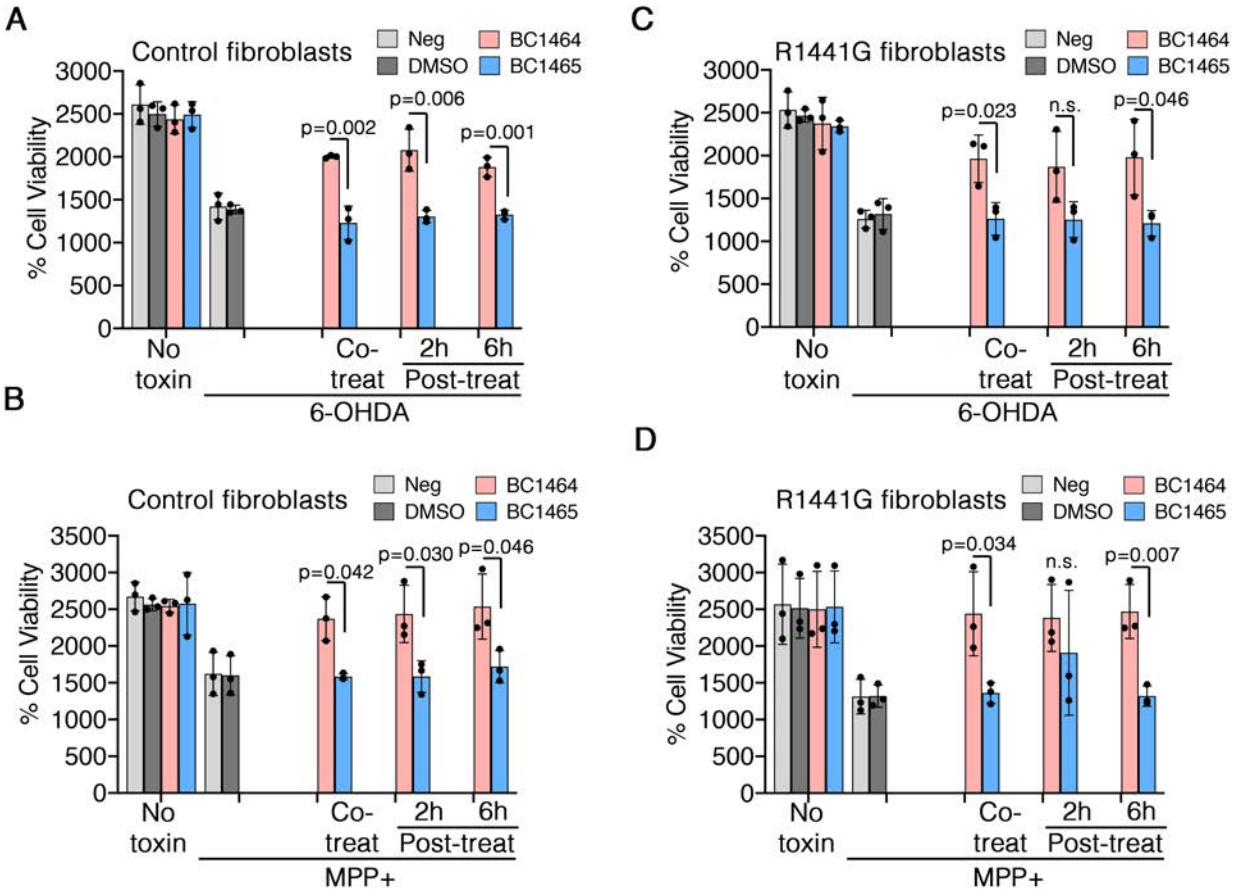


Fig. S4. Delayed administration of BC1464 confers protection in patient fibroblasts. Fibroblasts from control (A, B) and PD patient with the R1441G mutation (C, D) were treated with 6-OHDA (A,C) or MPP+ (B,D) as in Fig. 10. BC1464 or BC1465 (5 µg/ml) were either coadministered or administered up to 6 h after toxin. Cell viability was assessed after 24 h of toxin exposure. (mean =/- SD, N=3 independent experiments, ANOVA-protected two-tailed t-test).