**Description of Supplementary Files**

**File Name:** **Supplementary Data 1**

**Description:** List of differentially regulated proteins and label free quantification (LFQ) intensities in lungs of conditional *Nedd4-2–/–* versus control mice.

**File Name:** **Supplementary Data 2**

**Description:** List of differentially regulated proteins and LFQ intensities in lung tissue biopsies of IPF patients versus controls.

**File Name:** **Supplementary Data 3**

**Description:** List of differentially regulated proteins and LFQ intensities in lungs of untreated conditional *Nedd4-2–/–* mice versus pirfenidone-treated conditional *Nedd4-2–/–* mice and untreated controls.