Author’s response to reviews

Title: The overexpression of peroxiredoxin-4 affects the progression of idiopathic pulmonary fibrosis

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Prof. Dr. Clayton,

We deeply appreciate your interest in our manuscript and your courteous reply. We have read the comments and have revised our manuscript accordingly as below.

We hope that our responses are satisfactory and that our revised manuscript is now acceptable for publication in BMC Pulmonary Medicine. We are looking forward to your favorable consideration.

Respectfully yours,

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RESPONSE TO EDITOR COMMENTS

1. In the Methods section of your manuscript, please provide extensive, explicit details regarding the euthanization of study animals. Please provide full details regarding the time relative to the study which animals were sacrificed; the anesthesia used (if applicable), along with volume and concentration; and the ultimate method of euthanization.

Response: Thank you for your valuable comments regarding the euthanization. All animal experiments, including the way of euthanization, were performed in accordance with the National Institutes of Health guidelines as described on page 10, line 178. Specifically, each mouse was inhaled with 3% sevoflurane to initiate anesthesia and then deeply anesthetized with
intraperitoneal injection of sodium pentobarbital (50 mg/kg). These mice were euthanized by cutting the inferior vena cava to induce exsanguination after collecting blood from the inferior vena cava. In addition, duration time is generally a problem in painful animal experiments, and we fully removed their pain by deep anesthesia.

We modified the text about the detail of anesthesia and sacrifice as follows.

Before
Page 11, line 190:
On day 21, the mice were sacrificed under deep anesthesia with sodium pentobarbital (50 mg/kg, i.p.). Separately, a group sacrificed under deep anesthesia on day 0 without any intratracheal instillation was provided in order to evaluate the human PRDX4 mRNA and protein levels at baseline (baseline group).

After
Page 11, line 191:
On day 21, the mice were inhaled with 3% sevoflurane to initiate anesthesia and then deeply anesthetized with intraperitoneal injection of sodium pentobarbital (50 mg/kg). These mice were euthanized by cutting the inferior vena cava to induce exsanguination after collecting blood from the inferior vena cava. Separately, a group sacrificed on day 0 without any intratracheal instillation was provided in order to evaluate the human PRDX4 mRNA and protein levels at baseline (baseline group).

2. Please also provide us with details about where the mice were obtained from.

Response: Thank you for your comments. WT mice were obtained from Kyudo Co., Ltd., Tosu, Japan. Tg mice were generated [23] and provided by co-author Prof. Yamada.
Male wild-type (WT) mice (C57BL/6, 10-week-old) (Kyudo, Co., Ltd., Tosu, Japan) and Tg mice (weight, 21–28 g) [20] were selected and maintained on a regular diet (CE-2, CLEA Japan, Inc., Tokyo, Japan).

After

Page 11, line 181:

Male wild-type (WT) mice (C57BL/6, 10-week-old) and Tg mice (weight, 21–28 g) were selected and maintained on a regular diet (CE-2, CLEA Japan, Inc., Tokyo, Japan). WT mice were obtained from Kyudo Co., Ltd. (Tosu, Japan). PRDX4-Tg mice were generated and provided in our facility [23].