#### **Supplemental Figure Legends**

- **Supplemental Figure I.** Representative fluorescence micrographs (x400) showing GFP-labeled IL8RA/B-ECs in frozen lung section and blood smear of MCT treated rats 24 hrs after transfusion of IL8RA/B-ECs. It is not clear whether the GFP cells were located in blood vessels or lung parenchyma due to the low resolution of the unfixed tissue. Yellow stained cells are GFP-positive cells. Blue stained nuclei are DAPI-labeled nuclei. GFP cells could be seen in blood smears, but not other tissues, including heart, kidney, liver and brain.
- **Supplemental Figure II.** Effects of IL8RA/B-EC, Null-EC, or vehicle transfusion on MCT-induced decrease in eNOS expression (brown stained cells) in pulmonary arterioles in rat lungs 4 wks after transfusion of ECs.
- **Supplemental Figure III.** Effects of IL8RA/B-EC, Null-EC, or vehicle transfusion on MCT-induced decrease in eNOS expression (brown stained cells) in alveoli in rat lungs 4 wks after transfusion of ECs.
- **Supplemental Figure IV.** Effects of IL8RA/B-EC, Null-EC, or vehicle transfusion on MCT-induced increase in iNOS expression (brown stained cells) in pulmonary arterioles in rat lungs 4 wks after transfusion of ECs.
- **Supplemental Figure V.** Effects of IL8RA/B-EC, Null-EC, or vehicle transfusion on MCT-induced increase in iNOS expression (brown stained cells) in alveoli in rat lungs 4 wks after transfusion of ECs.
- Supplemental Figure VI. Effects of IL8RA/B-EC, Null-EC, or vehicle transfusion on MCT-induced increase in IL-8 (CINC-2•) expression (brown stained cells) in pulmonary arterioles in rat lungs 4 wks after transfusion of ECs. CINC-2• -

cytokine induced neutrophil chemoattractant-2-beta (equivalent to human IL-8)

- **Supplemental Figure VII.** Effects of IL8RA/B-EC, Null-EC, or vehicle transfusion on MCT-induced increase in IL8 (CINC-2•) expression (brown stained cells) in alveoli in rat lungs 4 wks after transfusion of ECs.
- **Supplemental Figure VIII.** Effects of IL8RA/B-EC, Null-EC, or vehicle transfusion on MCT-induced increase in MCP-1 expression (brown stained cells) in pulmonary arterioles in rat lungs 4 wks after transfusion of ECs. MCP-1 monocyte chemotactic protein-1.
- **Supplemental Figure IX.** Effects of IL8RA/B-EC, Null-EC, or vehicle transfusion on MCT-induced increase in MCP-1 expression (brown stained cells) in alveoli in rat lungs 4 wks after transfusion of ECs.
- **Supplemental Figure X.** Effects of IL8RA/B-EC, Null-EC, or vehicle transfusion on MCT-induced infiltration of neutrophils (brown stained cells) in pulmonary arterioles in rat lungs 4 wks after transfusion of ECs.
- **Supplemental Figure XI.** Effects of IL8RA/B-EC, Null-EC, or vehicle transfusion on MCT-induced infiltration of neutrophils (brown stained cells) in alveoli in rat lungs 4 wks after transfusion of ECs.
- **Supplemental Figure XII.** Effects of IL8RA/B-EC, Null-EC, or vehicle transfusion on MCT-induced infiltration of monocytes/macrophages (brown stained cells) in pulmonary arterioles in rat lungs 4 wks after transfusion of ECs.
- **Supplemental Figure XIII.** Effects of IL8RA/B-EC, Null-EC, or vehicle transfusion on MCT-induced infiltration of monocytes/macrophages (brown stained cells) in alveoli in rat lungs 4 wks after transfusion of ECs.

IL8RA/RB-ECs (GFP marked) in lung of rat treated with MCT



# GFP labeled IL8RA/RB-ECs in Blood at 1 day after transfusion. A) Dark field, and B) Bright field



Supplemental Figure I

# eNOS Positive Cells in Pulmonary Arterioles

Vehicle



MCT+Null-ECs

**MCT Alone** 



MCT+IL8RA/B-ECs





Supplemental Figure II

#### eNOS Positive Cells in Alveoli

#### Vehicle



**MCT+Null-ECs** 

#### **MCT Alone**



MCT+IL8RA/B-ECs





Supplemental Figure III

# **iNOS Positive Cells on Pulmonary Arterioles**

## Vehicle



# **MCT+Null-ECs**

**MCT Alone** 



MCT+IL8RA/B-ECs





Supplemental Figure IV

# **iNOS Positive Cells in Alveoli**

# Vehicle



#### **MCT Alone**



MCT+Null-ECs

MCT+IL8RA/B-ECs





Supplemental Figure V

# **IL8 Positive Cells in Pulmonary Arterioles**

#### Vehicle

**MCT Alone** 



**MCT+Null-ECs** 



MCT+IL8RA/B-ECs





Supplemental Figure VI

# **IL8 Positive Cells in Alveoli**

#### Vehicle



#### **MCT Alone**



MCT+Null-ECs

MCT+IL8RA/B-ECs





Supplemental Figure VII

# **MCP-1 Positive Cells in Pulmonary Arterioles**

Vehicle

**MCT Alone** 



MCT+Null-ECs



MCT+IL8RA/B-ECs





Supplemental Figure VIII

# **MCP-1 Positive Cells in Alveoli**

# Vehicle



**MCT+Null-ECs** 

#### **MCT Alone**



MCT+IL8RA/B-ECs





Supplemental Figure IX

# **Neutrophils in Pulmonary Arterioles**

# Vehicle

**MCT Alone** 



**MCT+Null-ECs** 







Supplemental Figure X

# Neutrophils in Alveoli

#### Vehicle

**MCT+Null-ECs** 





#### MCT+IL8RA/B-ECs





Supplemental Figure XI

# Monocytes/Macrophages in Pulmonary Arterioles

#### Vehicle





MCT+Null-ECs



MCT+IL8RA/B-ECs





Supplemental Figure XII

# Monocytes/Macrophages in Alveoli

#### Vehicle



MCT+Null-ECs

#### **MCT Alone**



MCT+IL8RA/B-ECs





Supplemental Figure XIII