

# Author's Accepted Manuscript

Hemoglobin induced lung vascular oxidation, inflammation, and remodeling contributes to the progression of hypoxic pulmonary hypertension and is attenuated in rats with repeat dose haptoglobin administration

David C. Irwin, Jin Hyen Baek, Kathryn Hassell, Rachelle Nuss, Paul Eigenberger, Christina Lisk, Zoe Loomis, Joanne Maltzahn, Kurt R Stenmark, Eva Nozik-Grayck, Paul W. Buehler



[www.elsevier.com/locate/freerad-biomed](http://www.elsevier.com/locate/freerad-biomed)

PII: S0891-5849(15)00019-2  
DOI: <http://dx.doi.org/10.1016/j.freeradbiomed.2015.01.012>  
Reference: FRB12280

To appear in: *Free Radical Biology and Medicine*

Received date: 17 October 2014  
Revised date: 11 December 2014  
Accepted date: 20 January 2015

Cite this article as: David C. Irwin, Jin Hyen Baek, Kathryn Hassell, Rachelle Nuss, Paul Eigenberger, Christina Lisk, Zoe Loomis, Joanne Maltzahn, Kurt R Stenmark, Eva Nozik-Grayck, Paul W. Buehler, Hemoglobin induced lung vascular oxidation, inflammation, and remodeling contributes to the progression of hypoxic pulmonary hypertension and is attenuated in rats with repeat dose haptoglobin administration, *Free Radical Biology and Medicine*, <http://dx.doi.org/10.1016/j.freeradbiomed.2015.01.012>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

# Hemoglobin induced lung vascular oxidation, inflammation, and remodeling contributes to the progression of hypoxic pulmonary hypertension and is attenuated in rats with repeat dose haptoglobin administration

David C. Irwin<sup>1\*\*†</sup>, Jin Hyen Baek<sup>2\*†</sup>, Kathryn Hassell<sup>3</sup>, Rachelle Nuss<sup>3</sup>, Paul Eigenberger<sup>1</sup>, Christina Lisk<sup>1</sup>, Zoe Loomis<sup>3</sup>, Joanne Maltzahn<sup>1</sup>, Kurt R Stenmark<sup>4</sup>, Eva Nozik-Grayck<sup>4</sup>, Paul W. Buehler<sup>2,1\*†</sup>

<sup>1</sup> Cardiovascular Pulmonary Research Group, Division of Cardiology, School of Medicine, University of Colorado Denver | Anschutz Medical Campus, Aurora, Colorado

<sup>2</sup> Laboratory of Biochemistry and Vascular Biology, Office of Blood Research and Review, Center for Biologics Evaluation and Research, U.S. Food and Drug Administration, Bethesda, Maryland

<sup>3</sup> Colorado Sickle Cell Treatment and Research Center, University of Colorado Denver | Anschutz Medical Campus, Aurora, Colorado

<sup>4</sup> Cardiovascular Pulmonary Research Group, Pediatrics, School of Medicine, University of Colorado Denver | Anschutz Medical Campus, Aurora Colorado

† Contributed equally to all work in this manuscript

\*The findings and conclusions in this article have not been formally disseminated by the Food and Drug Administration and should not be construed to represent any Agency determination or policy.

**Short Title: Haptoglobin therapy for chronic exposure to free Hb**

**Word Count: 5389 not including materials and methods.**

**Word Count abstract: 213**

**Number of figures: 8**

\*\*Corresponding Author:

David C. Irwin, Ph.D., Assistant Professor

12700 East 19<sup>th</sup> Avenue

Research Building 2

Room 8121

Aurora, CO 80045

Phone: 303 724-3684

Fax: 303 724-3693

Email: David.Irwin@UCDenver.edu

Download English Version:

<https://daneshyari.com/en/article/8269330>

Download Persian Version:

<https://daneshyari.com/article/8269330>

[Daneshyari.com](https://daneshyari.com)