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Authors: Md Khadem Ali, Richard Y. Kim, Rafia Karim, Jemma R. Mayall, Kristy L. Martin, Ali Shahandeh, Firouz Abbasian, Malcolm R. Starkey, Veronique Loustaud-Ratti, Daniel Johnstone, Elizabeth A. Milward, Philip M. Hansbro, Jay C. Horvat



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Role of iron in the pathogenesis of respiratory disease

Md Khadem Ali<sup>a</sup>, Richard Y. Kim<sup>a</sup>, Rafia Karim<sup>a</sup>, Jemma R. Mayall<sup>a</sup>, Kristy L. Martin<sup>a</sup>, Ali

Shahandeh<sup>a</sup>, Firouz Abbasian<sup>b</sup>, Malcolm R. Starkey<sup>a</sup>, Veronique Loustaud-Ratti<sup>c</sup>, Daniel

Johnstone<sup>c</sup>, Elizabeth A. Milward<sup>a</sup>, Philip M. Hansbro<sup>a, 1</sup>, Jay C. Horvat<sup>a,1,\*</sup>

<sup>a</sup>School of Biomedical Sciences and Pharmacy, Faculty of Health and Medicine, The

University of Newcastle, Callaghan NSW 2308, Australia

<sup>b</sup>Global Centre for Environmental Remediation, Faculty of Science, the University of

Newcastle, Callaghan, NSW 2308, Australia

<sup>c</sup>U850 INSERM, University of Limoges, CHU Limoges, F-87000 Limoges, France

<sup>d</sup>Bosch Institute and Discipline of Physiology, The University of Sydney, Sydney NSW 2000,

Australia

<sup>1</sup>Authors contributed equally to this manuscript

Running title: Iron, infection and lung disease

**Corresponding author:** 

Dr Jay Horvat

School of Biomedical Sciences and Pharmacy

Faculty of Health and Medicine

The University of Newcastle

Callaghan NSW 2308 Australia

Tel: +61 2 4042 0220

F: +61 2 4042 0024

Email: jay.horvat@newcastle.edu.au

Abstract

Iron is essential for many biological processes, however, too much or too little iron can

result in a wide variety of pathological consequences, depending on the organ system, tissue

or cell type affected. In order to reduce pathogenesis, iron levels are tightly controlled in

throughout the body by regulatory systems that control iron absorption, systemic transport and

cellular uptake and storage. Altered iron levels and/or dysregulated homeostasis have been

associated with several lung diseases, including chronic obstructive pulmonary disease, lung

cancer, cystic fibrosis, idiopathic pulmonary fibrosis and asthma. However, the mechanisms

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