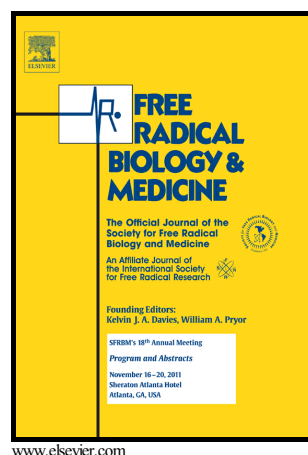


Author's Accepted Manuscript

RelB attenuates cigarette smoke extract-induced apoptosis in association with transcriptional regulation of the aryl hydrocarbon receptor

Matthew Iu, Michela Zago, Angela Rico de Souza, Manuella Bouttier, Swati Pareek, John H. White, Qutayba Hamid, David H. Eidelman, Carolyn J. Baglole



PII: S0891-5849(17)30117-X
DOI: <http://dx.doi.org/10.1016/j.freeradbiomed.2017.02.045>
Reference: FRB13238

To appear in: *Free Radical Biology and Medicine*

Received date: 7 September 2016
Revised date: 22 February 2017
Accepted date: 23 February 2017

Cite this article as: Matthew Iu, Michela Zago, Angela Rico de Souza, Manuella Bouttier, Swati Pareek, John H. White, Qutayba Hamid, David H. Eidelman and Carolyn J. Baglole, RelB attenuates cigarette smoke extract-induced apoptosis in association with transcriptional regulation of the aryl hydrocarbon receptor, *Free Radical Biology and Medicine* <http://dx.doi.org/10.1016/j.freeradbiomed.2017.02.045>

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.

RelB attenuates cigarette smoke extract-induced apoptosis in association with transcriptional regulation of the aryl hydrocarbon receptor

Matthew Iu¹, Michela Zago⁵, Angela Rico de Souza⁵, Manuella Bouttier⁴, Swati Pareek², John H. White^{1,4}, Qutayba Hamid^{1,2,5}, David H. Eidelman^{1,5}, Carolyn J. Baglole^{1,2,3,5*}

¹Departments of Medicine, McGill University; Research Institute of the McGill University

Health Centre (RI MUHC), Montreal, Quebec, Canada

²Departments of Pathology, McGill University; Research Institute of the McGill University

Health Centre (RI MUHC), Montreal, Quebec, Canada

³Departments of Pharmacology & Therapeutics, McGill University; Research Institute of the

McGill University Health Centre (RI MUHC), Montreal, Quebec, Canada

⁴Departments of Physiology, McGill University; Research Institute of the McGill University

Health Centre (RI MUHC), Montreal, Quebec, Canada

⁵Research Institute of the McGill University Health Centre (RI MUHC), Montreal, Quebec,

Canada

* Author for Correspondence: McGill University, Centre for Translational Biology (CTB), Block E, 1001 Decarie Blvd., Montreal QC H4A 3J1 Canada. Tel: (514) 934-1934 Ext 76109. Carolyn.baglole@McGill.ca

ABSTRACT

Chronic obstructive pulmonary disease (COPD) is a chronic and prevalent respiratory disease caused primarily by long term inhalation of cigarette smoke. A major hallmark of COPD is elevated apoptosis of structural lung cells including fibroblasts. The NF- κ B member RelB may suppress apoptosis in response to cigarette smoke, but its role in lung cell survival is not known. RelB may act as a pro-survival factor by controlling the expression of superoxide dismutase 2 (SOD2). SOD2 is also regulated by the aryl hydrocarbon receptor (AhR), a ligand-activated transcription factor that suppresses cigarette smoke-induced apoptosis. As the AhR is also a

Download English Version:

<https://daneshyari.com/en/article/5502018>

Download Persian Version:

<https://daneshyari.com/article/5502018>

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