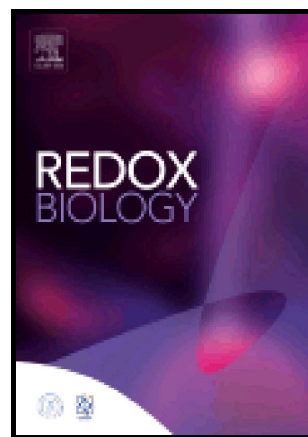


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**N-acetyl Cysteine Reverts the Proinflammatory State Induced by Cigarette Smoke Extract in Lung Calu-3 Cells**

Ángel G. Valdivieso<sup>1\*</sup>, Andrea V. Dugour<sup>2</sup>, Verónica Sotomayor<sup>1</sup>, Mariángeles Clauzure<sup>1</sup>, Juan M. Figueroa<sup>2</sup> and Tomás A. Santa-Coloma<sup>1\*</sup>

<sup>1</sup>Institute for Biomedical Research (BIOMED, UCA-CONICET), Laboratory of Cellular and Molecular Biology, School of Medical Sciences, Pontifical Catholic University of Argentina (UCA) and The National Scientific and Technical Research Council of Argentina (CONICET), Buenos Aires, C1107AFF, Argentina

<sup>2</sup>Fundación Pablo Cassará. Buenos Aires, Argentina.

\*Correspondence to: Ángel G. Valdivieso, [angel\\_valdivieso@uca.edu.ar](mailto:angel_valdivieso@uca.edu.ar); Tomás A. Santa-Coloma, [tomas\\_santacoloma@uca.edu.ar](mailto:tomas_santacoloma@uca.edu.ar), [tsantacoloma@gmail.com](mailto:tsantacoloma@gmail.com). Address: Laboratory of Cellular and Molecular Biology, Institute for Biomedical Research (BIOMED, UCA-CONICET), School of Medical Sciences, Pontifical Catholic University of Argentina, Alicia Moreau de Justo 1600, Buenos Aires 1107, Argentina.

**ABSTRACT**

Chronic obstructive pulmonary disease (COPD) and cystic fibrosis (CF) are lethal pulmonary diseases. Cigarette consumption is the main cause for development of COPD, while CF is produced by mutations in the *CFTR* gene. Although these diseases have a different etiology, both share a CFTR activity impairment and proinflammatory state even under sterile conditions. The aim of this work was to study the extent of the protective effect of the antioxidant N-acetylcysteine (NAC) over the proinflammatory state (IL-6 and IL-8), oxidative stress (reactive oxygen species, ROS), and CFTR levels, caused by Cigarette Smoke Extract (CSE) in Calu-3 airway epithelial cells. CSE treatment (100 µg/ml during 24 h) decreased *CFTR* mRNA expression and activity, and increased the release of IL-6

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