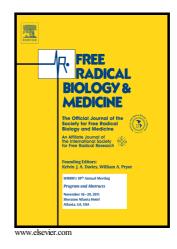
## Author's Accepted Manuscript

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## Quantitative Assessment of Cyanide in Cystic Fibrosis Sputum and its Oxidative Catabolism by Hypochlorous Acid

Jason P. Eiserich<sup>a,b,1</sup>, Sean P. Ott<sup>a</sup>, Tamara Kadir<sup>a</sup>, Brian M. Morrissey<sup>a</sup>, Keri A. Hayakawa<sup>a</sup>,

Michele A. La Merrill<sup>c</sup> and Carroll E. Cross<sup>a,b,\*</sup>

<sup>a</sup>Department of Internal Medicine, Division of Pulmonary/Critical Care and Sleep Medicine,

University of California, Davis, CA 95616

<sup>b</sup>Department of Physiology and Membrane Biology, University of California, Davis, CA 95616

<sup>c</sup>Department of Environmental Toxicology, University of California, Davis, CA 95616

\*Corresponding Author: Carroll E. Cross, M.D. Phone: +1-916-734-3564, Fax: +1-916-734-7924, cecross@ucdavis.edu

#### ABSTRACT

#### **Rationale:**

Cystic fibrosis (CF) patients are known to produce cyanide (CN<sup>-</sup>) although challenges exist in determinations of total levels, the precise bioactive levels, and specificity of its production by CF microflora, especially *P. aeruginosa*. Our objective was to measure total CN<sup>-</sup> levels in CF sputa by a simple and novel technique in *P. aeruginosa* positive and negative adult patients, to review respiratory tract (RT) mechanisms for the production and degradation of CN<sup>-</sup>, and to interrogate sputa for post-transcriptal protein modification by CN<sup>-</sup> metabolites.

#### Methods:

<sup>&</sup>lt;sup>1</sup> Current affiliation: Senior Environmental Scientist (Supervisory), California Environmental Protection Agency, Department of Pesticide Regulation, Sacramento, CA, 98517.

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