



## Autoimmunity to annexin A2 predicts mortality among hospitalised COVID-19 patients

Marisol Zuniga<sup>1,8</sup>, Claudia Gomes<sup>1,8</sup>, Steven E. Carsons<sup>2</sup>, Michael T. Bender<sup>3</sup>, Paolo Cotzia<sup>4</sup>, Qing Robert Miao<sup>5</sup>, David C. Lee<sup>6,7,9</sup> and Ana Rodriguez<sup>1,9</sup>

<sup>1</sup>Dept of Microbiology, NYU Grossman School of Medicine, New York, NY, USA. <sup>2</sup>Division of Rheumatology, Dept of Medicine, NYU Long Island School of Medicine, New York, NY, USA. <sup>3</sup>Division of Pulmonology and Critical Care Medicine, Dept of Medicine, NYU Long Island School of Medicine, New York, NY, USA. <sup>4</sup>Dept of Pathology, NYU Grossman School of Medicine, New York, NY, USA. <sup>5</sup>Dept of Foundations of Medicine, NYU Long Island School of Medicine, New York, NY, USA. <sup>6</sup>Dept of Emergency Medicine, NYU Grossman School of Medicine, New York, NY, USA. <sup>8</sup>M. Zuniga and C. Gomes contributed equally to this work. <sup>9</sup>D.C. Lee and A. Rodriguez contributed equally to this article as lead authors and supervised the work.

Corresponding author: David C. Lee (david.lee@nyumc.org)



Shareable abstract (@ERSpublications)

Levels of anti-annexin A2 antibodies at admission strongly predicted mortality among hospitalised COVID-19 patients. Given its critical protective function in the lung, annexin A2 antagonism may play an important role in the pathophysiology of COVID-19. https://bit.ly/2UMPr9w

Cite this article as: Zuniga M, Gomes C, Carsons SE, *et al.* Autoimmunity to annexin A2 predicts mortality among hospitalised COVID-19 patients. *Eur Respir J* 2021; 58: 2100918 [DOI: 10.1183/13993003.00918-2021].

This single-page version can be shared freely online.

Copyright ©The authors 2021.

This version is distributed under the terms of the Creative Commons Attribution Non-Commercial Licence 4.0. For commercial reproduction rights and permissions contact permissions@ersnet.org

Received: 15 Jan 2021 Accepted: 24 June 2021 To the Editor:

The pathophysiology of severe coronavirus disease 2019 (COVID-19) has largely been attributed to a hyper-inflammatory response without a clear indication of the underlying mechanism [1]. There is a characteristic delay in the onset of respiratory distress, approximately 6 to 12 days after the start of symptoms, which is somewhat atypical for other severe viral respiratory infections [2]. Several theories have been proposed for this delay, such as an indolent infection or viral persistence. However, data from viral cultures of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (not PCR) demonstrate a lack of positive cultures beyond day 9 of illness [3].



