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Editorial for the “The Tribute of Physiology for the Understanding of COVID-19 Disease” collection

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Editorial for the “The Tribute of Physiology for the Understanding of COVID-19 Disease” collection

GEORGES LEFTHERIOTIS^{1*}, Susan Wray², Adriana C. Girardi³, Emmanuelle Vidal-Petiot⁴, Matthew A. Bailey⁵, Deborah Schechtman⁶, Ravi Nistala⁷, Denis Noble⁸

¹Laboratory of Vascular Investigations and Physiology, Université Côte d'Azur, France, ²University of Liverpool, United Kingdom, ³Division of Pneumology, Heart Institute, Clinical Hospital, Faculty of Medicine, University of São Paulo, Brazil, ⁴Assistance Publique Hopitaux De Paris, France, ⁵University of Edinburgh, United Kingdom, ⁶University of São Paulo, Brazil, ⁷University of Missouri, United States, ⁸University of Oxford, United Kingdom

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each authors contributed equally to the editorial board of the collection

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Contribution to the field

We were invited to submit this editorial on the request of the Frontier's editorial office in order to complete the collection cited in reference.

In review

Editorial for the “The Tribute of Physiology for the Understanding of COVID-19 Disease” collection

Authors: G. Lefthériotis , Wray Susan, Costello Costa Girardi Adriana, Vidal-Petiot Emmanuelle, Bailey Matthew, Deborah Schechtman, Ravi Nistala & Noble Denis

While the specter of the COVID19 pandemic appears to be gradually receding, the lessons learned from the pandemic are still relevant today. During the year 2021, a collective of physiologists belonging to different national (French, UK, Brazil, ...) and European societies (federation of the European Society of Physiology - FEPS), joined forces to make their contribution to the scientific knowledge accumulated during this pandemic.

More than 50 articles have been submitted for publication, and viewed more than 450,000 times, demonstrating the interest of the physiological community in the subject. The articles published in this collection have provided new information or reflections in all areas of physiology, from immunity to respiratory, cardiovascular function, including hemostasis, neurophysiology or even certain related aspects to epidemiology.

The objective of the collection was to provide a better understanding of the interaction between COVID-19 and physiological functions at different stages of organization, from genes to the whole living organism in different disciplinary fields, including cardiovascular, renal, gastrointestinal, endocrine, respiratory & pulmonary, immune and neuronal systems and their physiological functions.

It is important to note that the roles of environmental factors, including age, gender, smoking, metabolic imbalances (e.g. diabetes), as well as immuno-allergic status were taken into account in the selection of articles. The symptoms of the COVID-19 infection have uniquely revealed a richness and diversity focused on a limited time and affecting different populations of cultures and ethnicities. Symptomatology has illustrated interactions and relationships between different physiological functions (eg anosmia and neurological symptoms).

The entire invited editorial team is also engaged in the evaluation of interdisciplinary opinions and points of view, as well as data from original work of the different physiological systems targeted by SARS-Cov-2.

The virus is still there with its share of unknowns and uncertainties, and the scientific community too, in an attempt to answer questions from the medical community and human populations in general. The anti-COVID vaccination and its procession of sometimes unusual manifestations is in itself another chapter that opens in the history of this pandemic. There is still significant scientific work to be done in these areas in order to improve our understanding of the mechanisms of this pandemic and to better care for patients and protect us from the next waves.

The invited editorial committee would like to thank all the contributors to this collection, authors and reviewers for their availability and their investment in the editorial process

In review