



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

COVID-19: A Lesson in Humility and An Opportunity for Sagacity and Hope

Valentin Fuster, MD, PhD, Justine Varieur Turco, MA

PII: S0735-1097(20)34902-0

DOI: <https://doi.org/10.1016/j.jacc.2020.04.008>

Reference: JAC 27256

To appear in: *Journal of the American College of Cardiology*

Please cite this article as: Fuster V, Turco JV, COVID-19: A Lesson in Humility and An Opportunity for Sagacity and Hope, *Journal of the American College of Cardiology* (2020), doi: <https://doi.org/10.1016/j.jacc.2020.04.008>.

This is a PDF file of an article that has undergone enhancements after acceptance, such as the addition of a cover page and metadata, and formatting for readability, but it is not yet the definitive version of record. This version will undergo additional copyediting, typesetting and review before it is published in its final form, but we are providing this version to give early visibility of the article. 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.

© 2020 Published by Elsevier on behalf of the American College of Cardiology Foundation.

COVID-19: A Lesson in Humility and An Opportunity for Sagacity and Hope

Valentin Fuster, MD, PhD, Justine Varieur Turco, MA

Journal Pre-proof

“Even great men bow before the Sun; it melts hubris into humility.”

— Dejan Stojanovic

The outbreak of COVID-19 has caused all of us to feel like as if we are swimming in turbulent waters, struggling to reach the shore. Many of us are frightened by the rapid, infectious nature of an unknown virus. It is understandable to be frightened, as most of us were not trained in battlefield medicine.

Unfortunately, numerous public health experts predicted this potential threat—and such predictions and proactive recommendations fell on deaf ears. In 2017, I (VF) co-chaired a Committee of the National Academies of Sciences (NAS), Engineering, and Medicine, “Global Health and the Future Role of the United States”, comprised of 12 experts in health and economics, with the objective of presenting recommendations to the U.S. government for evaluation and action. A critical proposal in this report was the investment and commitment to be prepared for future infectious disease pandemics, as well as an awareness of the evolving impact of chronic diseases, such as cardiovascular disease (1). In our 2017 *New England Journal of Medicine* article summarizing the NAS report, we wrote, “The U.S. Army recently estimated that if a severe infectious disease pandemic were to occur today, the number of U.S. fatalities might well be nearly double the total number of battlefield fatalities sustained in all U.S. wars since the American Revolution...it is critical for the United States to recognize their severity and take proactive measures to build capacities and establish sustainable and cost-effective infrastructure to combat them” (2,3). In the NAS report, we proposed specific recommendations to improve coordination during international public health emergency preparedness and response efforts, which would have better equipped us in the fight against COVID-19 (3,4). These

recommendations, if implemented, could have presented multiple avenues to better preserve public health and security in such a crisis.

The world will change as a result of this pandemic. This current uncertainty has been incredibly humbling, which may be the change we needed. As physician scientists and clinicians, we may have become arrogant, bolstered by the success of our treatments and protocols. We need to use this time to become more human and more humble—to recognize that our hubris has made us weaker opponents to this disease. We will recover as a clinical and scientific community, but we need to consider how we can improve as a society and be better prepared for future challenges. We should reconsider our academic responsibilities, including scientific rigor, mentoring our younger clinicians and investigators, improving the delivery of patient care, and protecting our clinician teams. Culturally, we have an opportunity to be less reactive, more reflective, and to refocus on social equality and public health. A change is imminent.

Over the past few weeks, the *Journal of the American College of Cardiology (JACC)* has provided a lens into how the crisis has altered academic output. We have seen a vast disparity in academic output among our authors, reviewers, and editors. In March 2020, *JACC* received a 70% increase in submissions compared with March 2019, including a deluge of manuscripts related to COVID-19. We have been concerned that some authors, but certainly not all, have been opportunistic among the crisis to publish in this area. The *JACC* Editors want to appropriately inform the medical community about the coronavirus, especially related to those patients with cardiovascular complications and comorbidities (5), but we continue to be sagacious about publishing manuscripts that do not contain clear recommendations or scientific data, including anecdotal observations or small meta-analyses. We have a responsibility to commit to quality science. We still need to apply the appropriate amount of peer review rigor

and discernment about what will be applicable to clinical practice and research. We cannot respond to the unscientific, reactive, and fast-paced environment that is reinforced through popular media and social media outlets.

What can we expect from *JACC* in the near future? Many clinicians are on the front lines of this terrible pandemic in the hospital setting, and we will continue to be flexible with deadlines and alleviate peer review publishing responsibilities. On one hand—depending on regional environments and circumstances—some clinical researchers at all stages of their careers are being asked to social distance from hospitals and laboratories. In part, this explains *JACC*'s recent increase in submissions. On the other hand, the longer-term effect of paused trials and preclinical research will likely mean a delay in the production of academic output, so research submissions and publications may see a some decrease in 6 to 12 months.

We should never forget the importance of being humble and sagacious, both individually and as a society. We are already witnessing glimmers of hope. Personally, we are already proud to see the courage we have witnessed by researchers and clinical care teams, demonstrating a fortitude that we are sure will lead toward a better future.

REFERENCES

1. National Academies of Sciences, Engineering, and Medicine. Global health and the future role of the United States. May 15, 2017.
<https://www.nap.edu/catalog/24737/global-health-and-the-future-role-of-the-united-states>
2. Dzau V, Fuster V, Frazer J, et al. Investing in Global Health for Our Future. *N Engl J Med* 2017;377:1292-1296.
3. Defense civil support: DoD, HHS, and DHS should use existing coordination mechanisms to improve their pandemic preparedness. Washington, DC: Government Accountability Office, 2017.
4. Fuster V, Frazer J, Snair M, et al. The Future Role of the United States in Global Health. Emphasis on Cardiovascular Disease. *J Am Coll Cardiol*. 2017;70(25):3140-3156
5. Driggin E, Madhavan MV, Bikdehli B, et al. Cardiovascular Considerations for Patients, Health Care Workers, and Health Systems During the Coronavirus Disease 2019 (COVID-19) Pandemic. *J Am Coll Cardiol*. March 2020.
DOI: 10.1016/j.jacc.2020.03.031.