



## EDITORIAL

**CoViD-19: science matters... everywhere?  
CoViD-19: ciência importa... em todos os lugares?**Arturo Sánchez-Paz<sup>1</sup> 

Even though molecular analyses suggest that coronaviruses have circulated in our planet for over 300 million years (infecting mammalian and avian species) (WERTHEIM *et al.*, 2013), the oldest human coronavirus was first identified in 1965 (TYRREL and BYNOE, 1966). The SARS-CoV-2 is the seventh coronavirus known to infect humans, and it has been with us for a year. While this virus has infected nearly 90 million people and provoked almost 2 million deaths globally, the containment measures to halt its spread dramatically impacted the financial economy worldwide (however, the economic impact is not yet clear) (ZHANG *et al.*, 2020). For these reasons, the SARS-CoV-2 pandemic might be considered the event that dominated 2020.

We, humans, should be proud of the breakthroughs achieved by modern scientific practice. In this way, the spreading speed of the coronavirus was only comparable with the scientific advances to understand the biology of the virus and, of course, to develop measures to control it. Few days after the virus emerged for the first time in China, its genome was sequenced, and this information was promptly released. Afterward, other research groups developed diagnostic tests, investigated measures to control it, progressed on treatments, and created vaccines at speed never seen before. The virus appeared at a time when science is highly sophisticated. The many years of evolving a scientific and technological structure are in our favor.

Some governments have fully acknowledged that a major driving force for the wealth of their nations is knowledge. Thus, scientific development is required for the expansion of the productive apparatus of a country. According to The Atlas of Economic Complexity, “*Our most prosperous modern societies are wiser, not because their citizens are individually brilliant, but because these societies hold a diversity of knowhow and because they can recombine it to create a larger variety of smarter and better products*” (HAUSSMAN *et al.*, 2013). Unfortunately, the amassment of productive knowledge is not a global experience.

Latin America, like other developing countries in the world, has faced serious challenges during the current crisis. The contribution of the scientific apparatus of many developing countries, where research is

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considered a luxury more than a need, to respond to the CoViD-19 sanitary crisis has been fairly small when compared with some European countries, China, and the United States. Diagnostic tests, vaccines, and possible antiviral drugs have been investigated, designed, and progressed in developed countries. Governments of Latin American nations must visualize this crisis as an unique opportunity for changes and improvements of their scientific structure, as an opportunity for innovations and creative solutions. Investing in strengthening the research capacity is the most effective way of advancing health and development in our countries. Funding research for creating our own vaccines could be a way to reduce the negative impact of this disease through more expedite access, gain knowledge and vast experience, and lessen the scientific and technological gap in this field between developed and developing nations. Researchers from developing countries have proven highly competent, resilient, and adapted to work in the more challenging conditions, can respond to the CoViD-19 pandemic through innovative strategies. It may be late, once more, for the bodies in charge of science and health from developing countries to recognize this. But, since this will not be the last pandemic (and epidemics are a fact of life), current events should serve as an experience for developing countries to change their scope and consolidate their scientific structure to improve preparedness and management of the next sanitary emergency.

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