

# Review of: "The Changing Trajectory of Covid-19 and How Immunity is Evolving with It"

Carlo Modonesi<sup>1</sup>

<sup>1</sup> Fondazione IRCCS Istituto Nazionale dei Tumori di Milano

**Potential competing interests:** No potential competing interests to declare.

- Clear and well-written article in which the Authors show a good expertise on the subject matter, both from clinical and health viewpoints. Much less attention is instead paid to the social, ethical, economic and geopolitical implications that have characterized the pandemic and the measures to contrast (vaccines) the spread of SARS-CoV-2.
- It should also be noted that in some passages the Authors' claims do not seem adequately supported by literature data.
- The Authors rightly point out that one of the most important criticalities that must be taken into account today is the circulation of SARS-CoV-2 which, as we know, has not exhausted itself generating a potential source of new variants whose effects on public health we cannot predict.
- Some of the Authors' arguments seem far from reality, in particular the proposal to adopt seasonal anti-Covid19 vaccination programs in today's times, in which the health systems of a large part of the world (including the industrialized world) are going through a deep crisis of resources and of sustainability due to the dramatic consequences produced by the pandemic itself.
- In this work, other much less costly prevention measures (e.g. educational, social, employment, mobility, etc.) that could significantly strengthen the control and spread of the coronavirus, transforming the fight against Covid- 19 in a new policy for the protection of community health.
- Little or no critical attention is paid to the lack of a real active surveillance system able to bring out the risks of adverse effects due to mRNA vaccines in the different regions of the world where this technology (never used before) has been implemented
- An important limitation of the article lies in the restricted geographical context to which it refers. As far as one can guess, the Authors refer almost exclusively to the US context, or to the Western world in general. Furthermore, they limit their evaluations of active counteracting measures to SARS-CoV-2 to only the two mRNA vaccines distributed since the end of 2020 in some regions of the world. The Authors overlook the positive effects due to other vaccines implemented in other parts of the world and avoid stressing the relevance of the global picture.
- It is widely documented that in most African countries and several Asian countries there have been huge differences in access to mRNA vaccines. Only a very few African countries (Nigeria, Libya, Kenya and South Africa) have managed to access the US vaccine market, but the doses per 100 inhabitants available for their populations have been much lower than those distributed in industrialized countries. Official data show supplies of vaccines whose distribution (single-dose only) ranged from 3 to 30 doses per 100 inhabitants.
- This last aspect makes it possible to clarify that the degree of immunity achieved in the various countries of the world

and the evolutionary trends of SARS-COV-2 do not only reflect the success (or failures) of vaccination programmes, but also reflect the balance of power between countries (or between blocs of countries) as well as cooperation agreements sanctioned by governments at the global geopolitical level.

- In conclusion, I am in favor of the publication of this article, because contents of strictly biological/biomedical relevance are treated satisfactorily. However, I suggest to the Authors to broaden the vision of the article to at least some of the aspects I have indicated above. The researcher must always interpret the real world not only through his scientific and professional gaze, but also through the filter of culture and ethics. Otherwise the close relationship between medicine, health and the human community is betrayed.