Comments on the article "Do Viruses Exist?" by Michael Palmer, M.D. and Sucharit Bhakdi, M.D.

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The article (<u>link</u>) that was brought to my attention describes the views of two prominent doctors on the virus and the COVID-19 aspects, notably their isolation and characterization.

In short, there is nothing new here. It is just repeating false claims about the virus and its isolation. It is clear that the authors do not understand the underlying science, thus making numerous invalid and false claims. For example:

@ "Before we go into any specifics on germs and viruses, we should acknowledge that the public has ample reason to mistrust not only politicians, public officials and the media, but also the "scientific community."

Interestingly, public mistrust of doctors has been skipped. It is a critical omission (arguably intentional). This should be the main concern, noting that the responsible authorities mentioned above depended on doctors' claims. As noted in the article, doctors made claims about the virus's existence, availability of their samples, cause of illness (COVID-19), pandemic, and vaccine development. Scientifically, these claims are categorically false.

Why are these claims false and not recognized by doctors? The reason is that these topics are of (physical) science, particularly chemistry, not biology or medical subjects. It is generally not recognized that a medical training/degree such as an M.D. is a standard non-science undergraduate degree without training in scientific (experimental) research. It is a fact that doctors do not study or are trained in science; hence, they do not recognize that false claims about science have been made.

So, please recognize this failing and refrain from claiming to be science professionals or scientists and critiquing actual science.

Some misunderstandings and false claims made in the article are described below.

@ "Viruses, by their very nature, can only multiply within living cells but not in pure culture." OK. No problem. Grow or multiply them in culture and get them out (i.e., isolate).



Otherwise, how was it established that the virus was there and that they have been multiplied? There is no evidence of it.

@ "... the question of disease causation must be settled in some other manner." But how was it established that the disease was there to start with and related to a virus or new virus? Scientifically, the "caustic agent" has to be isolated, purified, and characterized. Doctors failed to recognize this fundamental requirement of a scientific investigation.

Under the subheading "What does it mean to isolate a virus?" the content is simply bizarre and reflects total ignorance of how science works or should work to isolate the virus or otherwise (biological or non-biological material).

@ "Further on, the authors clarify that they don't agree with using cell cultures as part of the isolation procedure." The dominant contributors to such claims are doctors or biologists who, like the authors of this article, lack the expertise in science and, unfortunately, make the wrong claim or request.

Scientifically, there is nothing wrong with the cell culturing approach, an often-used practice. However, the concern is that the virus or particles must be isolated after culturing, i.e., separated from the medium. This has not been done. Hence, claims of virus existence or presence are incorrect, and this fact must not be accepted.

The authors of this article provided an example of an isolation virus (RVLV) with two sideby-side photos (Figure 2) that clearly show a lack of understanding of the underlying science and the techniques used.

First, the sample used is "isolate," not the isolated virus. Medical experts confuse these two as the same when they are very different. I have explained the difference here (link). In simple language, "isolate" is gunk or trash, not a pure isolated sample, which is needed to study the virus. Please do not mention "isolate" in place of "isolated virus," which is required for research. It reflects extremely badly on the medical profession, virology, and their "science."

Concerning electrophoresis, the technique requires a reference standard of the virus or the RNA from the virus to work. Electrophoresis has no value without a reference sample/standard of the virus or its components. It is simply garbage.

Concerning the electron microscope picture, it is not a characterization but a picture of an isolate or gunk labeled as a virus. These are just cartoons. The highlighted circles with flags



must be separated/isolated and then physically and chemically characterized. Till then, no virus or RNA, sorry. Experts are fooling themselves.

Under the subheading, Has the SARS-CoV-2 virus ever been isolated? It is stated, "Yes, it has been—numerous times." Categorically a false claim. Unfortunately, explaining or convincing them that it is a false belief or understanding is impossible because they do not have scientific training or knowledge of isolation and refuse to learn. Saying, "It is also possible to buy samples of the purified virus from the American Type Culture Collection." Incorrect. As I have explained (link), ATCC sells isolates (gunk), not purified viruses. Please have mercy; learn the science of isolation, purification, and characterization. You are making invalid and false claims.

@ "The legend that SARS-CoV-2 has never been isolated is founded solely on the rigid demand that such isolation be accomplished without the use of cell cultures."

Unfortunately, as noted above, this demand is from doctors and biologists (virologists, immunologists, etc.), not from actual science. Actual science has no issue with culturing. Please do as much culturing as you like, but then separate the viruses from it, which is missing.

@ "Instead, we must recapture and rekindle the spirit of rigorous but unprejudiced debate that once made medical science great." It is not clear what "medical science" is. In the science world, there is no such thing as "medical science." Actual science means physical science (physics, chemistry, and/or mathematics) and requires purified physical test (virus) samples (tink). The medical profession and biology (virology, immunology, microbiology, etc.) imply using actual science without proper training and knowledge, thus making disastrous and foolish claims.

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