



Jun 9, 2020  505

Scientists Have Utterly Failed to Prove that the Coronavirus Fulfills Koch's Postulates

Amory Devereux and Rosemary Frei



About 150 years ago, scientists painstakingly constructed a set of principles that can prove whether a particular microbe is the cause of a specific disease or is just a bystander. Those three principles are known as the Koch postulates.

From all the available information, the novel coronavirus doesn't appear to meet any of these tenets, never mind all three.

Like most human endeavours, the Koch postulates were the product of collaboration. First, Jakob Henle developed the underlying concepts, and then Robert Koch and Friedrich Loeffler spent decades refining them until they were published in 1890. The resulting **three postulates are:**

- 1 The pathogen occurs in every case of the disease in question and under circumstances that can account for the pathological changes and clinical course of the disease.
- 2 The causative microorganism occurs in no other disease as a fortuitous and nonpathogenic parasite.
- 3 After being fully isolated from the body and grown in tissue culture (or cloned), it can induce the disease anew.

The principles have been altered almost beyond recognition by **various researchers** over the ensuing 130 years. But the changes concomitantly watered down the postulates. That's why they're still used today by most researchers seeking to robustly prove or disprove the existence of a pathogen and its exclusive relationship with a particular disease.

There's an urgent need for scientists to step up and do this conclusively with the novel coronavirus and COVID-19. But, strangely,

the fire hose of scientific papers on the virus-disease dyad is only a sickly trickle on this tremendously important aspect of it.

A very straightforward and inexpensive experiment is all that's needed to prove that the first postulate has been met.

Here's how to do it. Test blood samples from a large number of people for the novel coronavirus using a test that's been proven by several non-conflicted third parties to be accurate – i.e., to have very low rates of false positives and false negatives.

Then, if all the people who are diagnosed with COVID-19 are the same ones who tested positive for the novel coronavirus, that would prove the virus causes COVID-19. (Note that COVID-19 would have to be diagnosed based on a well-defined and finite set of symptoms. The currently-used and excessively broad diagnostic criteria – such as pneumonia, or the combination of fever and cough – doesn't cut it, because those are present in many other respiratory conditions.)

But such an experiment has never been done, or if it has been done it hasn't been made public.

The real kicker, though, is that the third postulate – isolating and sequencing the virus and then showing it causes the disease in other organisms – has not been fulfilled either.

We've scoured the internet and *found no proof* that scientists have done the simple steps required to demonstrate that SARS-CoV-2 conclusively meets even one – never mind all — of the third postulate's constituent parts. Those parts are:

- isolation from a human patient's cells of full-length novel-coronavirus DNA*
- sequencing of the isolated DNA, then determining that the identical sequence is not present in any other virus, and next replicating or cloning the DNA to form a new copy of the virus
- injecting the new copy of the virus into a statistically significant number of living hosts (usually lab animals) and seeing whether those animals develop the discrete diagnostic symptoms associated with COVID-19 rather than developing the diagnostic symptoms of any other infection or disease.

A few scientists have claimed that some or all of the postulates have been fulfilled. Their papers have been given laudatory coverage by the media, public-health officials and politicians.

The problem is that each of these papers falls apart on even cursory examination.

For example, in February 2020 **Chinese** and **Dutch** researchers published studies purporting to show they had isolated the virus, which is the first step in fulfilling the third postulate.

But both teams sourced the virus from animals rather than humans. (And on top of that, the Dutch study was done 15 years ago on SARS-CoV, not SARS-CoV-2.)

Another example is a **review paper** by two Americans published in February 2020 and cinematically titled 'Return of the Coronavirus:

2019-nCoV.' Two places in the paper suggest the third postulate has been at least partially fulfilled.

The first is in the section titled 'Emergence.' There, the two authors write:

“ After extensive speculation about a causative agent [of the Wuhan outbreak], the Chinese Center for Disease Control and Prevention (CDC) confirmed a report by the Wall Street Journal and announced identification of a novel CoV on 9th January [2]. The novel CoV (2019-nCoV) was isolated from a single patient and subsequently verified in 16 additional patients [3]. While not yet confirmed to induce the viral pneumonia, 2019-nCoV was quickly predicted as the likely causative agent.

Strikingly, though, reference 3 that the authors link to at the end of the second sentence is a **World Health Organization press release rather than a published study**.

The section's next two sentences describe several Chinese research groups' virus-sequencing results. However, these sequencing attempts are shoddy. For example, **one group's paper** has many red flags – and indeed, on the web page showing the group's **sequence**, commenters

point to such problems as 'sequencing and assembly artifacts.' That group also didn't replicate or clone the DNA to form a new copy of the virus, as required by the third postulate. (All subsequent sequencing attempts also have fatal flaws with respect to meeting the postulates.)

Yet the Chinese researchers' gene sequences are integral to all of the polymerase chain reaction (PCR) test kits.

The second place in the review paper that refers to the principles is in the fifth section, 'Achieving Koch Postulates.' The authors assert that:

“ *Traditional identification of a microbe as the causative agent of disease requires fulfillment of Koch's postulates, modified by Rivers for viral diseases [37]. At the present time, the 2019-nCoV has been isolated from patients, detected by specific assays in patients, and cultured in host cells (one available sequence is identified as a passage isolate), starting to fulfill these criteria.*

What's missing is even one reference to back up those assertions.

Meanwhile, public-health officials appear oblivious to this gaping hole in the science. They imperiously pronounce that they're using the best data available, and act as if evidence-based decision-making is the substrate for the draconian measures they're imposing.

Could it be that they're in fact using *decision-based evidence-making*?

Here's an idea: please email your local, state/provincial AND national/federal governments, asking for solid scientific evidence that:

- 1 SARS-CoV-2 causes a discrete illness that matches the characteristics of all of the deaths attributed to COVID-19
- 2 the virus has been isolated, reproduced and then shown to cause this discrete illness.

If you get a response, please share it below.

*The virus contains RNA, which it injects into the nuclei of cells. There, the RNA is converted to DNA by reverse transcriptase enzymes. ^

*Amory Devereux is a freelance writer and podcaster with 13 years' experience as a language and communications trainer. He is the co-host of **Liberty & Logos** and is currently working on a book detailing his fleeing from England due to fears over the totalitarian nature of the UK Coronavirus Act. You can listen to an **interview** he recently gave about this journey and follow him on **Twitter**.*

*Rosemary Frei has an MSc in molecular biology from the Faculty of Medicine at the University of Calgary and was a freelance medical writer and journalist for 22 years. She is now an independent investigative journalist. You can read her article on **The Seven Steps from Pandemic to Totalitarianism**, **watch** and **listen** to an interview she gave on the pandemic, and follow her on **Twitter**.*