

# Dr. Tom Cowan Responds to Derrick Broze and Dr. Peter McCullough Re McCullough's Claim That Viruses Must Have Been Isolated Because They Use Them in Vaccines

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video by [Dr. Tom Cowan](#)

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*Partial transcript provided by [Truth Comes to Light](#). The video covers a number of subjects. This transcript is only of the first half of the video where Dr. Cowan addresses the comments made by Dr. Peter McCullough and Derrick Broze.*

*The introduction to this video includes a bit about Tom Cowan's work with coherent water. He mentions*

*dancingwithwater.com and will be doing additional interviews related to this topic in the future.*

*At approximately 4:58 marker he begins talking about the recent interview between Derrick Broze (founder of The Conscious Resistance and writer for The Last American Vagabond) and Dr. Peter McCullough.*

*At about 6:60, Tom Cowan plays a clip from the interview ([find the interview here](#)):*

## **Transcript**

### **Derrick Broze:**

“...opinion on another topic that’s related to COVID that has become the hot button issue in some corners. I’m sure you’ve come across it. But folks who believe that there are no viruses, or particularly that the COVID virus, hasn’t been isolated?

I’m not sure how much time you put in your energy into that. You know I’ve interviewed Andrew Kaufman and some of the folks who are kind of promoting that idea.

Personally, I’m not 100% sold on this idea. You know, I think there’s there’s some research needs to be done.

I do think there’s some interesting data out there about FOIA requests that have been put out trying to get governments – ‘Can you provide me proof of isolation?’.

But in general, what are your thoughts on this? Is this distraction? Division? You know? What do you think about that topic?

### **Dr. Peter McCullough:**

I think it’s distraction. And it may even be intentional

distraction.

There are standard virology lab techniques that have been used for decades, that have been used – viruses are transferred into one cell culture versus another.

They're isolated in order to be able to make vaccines. So of course they've been isolated.

We can see them on electron microscopy, so we can actually physically see the viruses and we we can basically determine the entire genetic sequence of the virus. We can understand every single protein within the virus.

So the viruses clearly exist. They have clearly been isolated because we make vaccines out of them.

If they couldn't be isolated, we could actually never make a vaccine.

The Chinese actually have – the SinoVac corona vaccine is the isolated SARS-CoV-2 virus killed and given as a vaccine.

So these claims are just, they're not useful, claims. I don't think they're helping us get to any solution and they're just, I think distractions of people who just honestly don't understand standard virology and vaccine techniques.

## **Derrick Broze:**

So when someone says – this is one of the arguments I've heard – when their argument is, when you look into the word isolation and the way virologists use it, they don't use it in the same sense that... So if I say I'm gonna isolate the coins out of your pocket, all I have in my hand is coins. And they're saying that the the process that's used to

isolate viruses is not as clean cut as that. And that there's other material in there. And this is their argument. Would you say that comes from a place of total lack of understanding?

**Peter McCullough:**

Yeah, it's a lack of understanding. They're clearly isolated. I mean, the viruses are isolated and it's actually purified in order to give us a vaccine. So they have to be isolated.

**Derrick Broze:**

OK. Well, thank you. Thank for addressing that.

**Dr. Tom Cowan:**

OK. So I made a little bit of mistake here. Derrick Broze did not ask for more tests. He called for more research so that he could verify that the 'no virus' so-called claim was accurate. And so again, I asked him what research or testing he would like to see. And I haven't heard back from him.

So as you heard, Dr. McCullough made the claim that I hadn't heard before, which is that the Chinese are making vaccines. (I'll tell you in a minute how they're making them.) And that this proves that the viruses have been isolated and, in fact, purified.

So even though in all our requests and all our looking at papers, we've not come across one example of a purified pathogenic virus including SARS-CoV-2.

So maybe Doctor McCullough can send us the reference showing us a purified virus.

But again, we've gone over the electron microscopy evidence for the virus.

We've gone over the sequencing of the virus.

And we haven't gone over this new claim, that because the Chinese are making a vaccine of SARS-CoV-2, that must prove that the virus has been isolated and purified— or else, how could they possibly have made the vaccine?

So let's take a look at this claim. So I pulled this from somewhere but I think it's sort of standard stuff. So I think we can basically rely on it because it's pretty much accurate for the standard response.

[Here Tom reads from a paper by Anne Moore, a senior lecturer in biochemistry and cell biology at University College Cork.]

*Editor's note: [Anne Moore](#) is a senior lecturer in biochemistry and cell biology at University College Cork and a specialist in vaccine development. We spoke to her for [episode 3 of The Conversation Weekly podcast](#) on vaccine manufacturing.*

*Below are excerpts from our conversation that have been edited for length and clarity.*

## **First, are all the vaccines the same?**

No. Different COVID-19 vaccines use different technologies, or “platforms”. The most conventional one is the inactivated vaccine. It contains dead virus. Because the virus is still whole, it has all of the parts, in the correct shape, that can stimulate a response from the immune system – what we call the antigens. The immune response can be against multiple antigens.

The [Chinese vaccines](#) – from [Sinovac](#) and [Sinopharm](#) – are the main ones using this platform. It's a great technology, it works for some human and veterinary vaccines. The same approach was used for [seasonal flu vaccines](#) some years ago.

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Then there are the viral-vectored vaccines, such as the [Oxford/AstraZeneca vaccine](#) and the [Sputnik V vaccine](#) from Russia's [Gamaleya Institute](#). This is where you take a harmless virus, such as a virus that gives you a cold, and you alter it so that it can infect one cell, but can't reproduce and go on to infect other cells.

You then get that virus to carry the gene for a protein of interest, such as the spike protein of SARS-CoV-2, with the DNA sequence for the spike protein combined into the virus's DNA. The virus is thus a vehicle for bringing the genetic instructions on how to make the spike protein into the body.

So are all vaccines the same? So the answer is no.

And then they go on to say, the Chinese vaccines, which are ones he's referring to from Sinovac and Sinopharm. Not sure if it's Sino or Sino are the main ones using this platform.

The [Chinese vaccines](#) – from [Sinovac](#) and [Sinopharm](#) – are the main ones using this platform. It's a great technology, it works for some human and veterinary vaccines. The same approach was used for [seasonal flu vaccines](#) some years ago.

This platform means they're using an inactivated vaccine because it “contains a dead virus”. The virus is still whole. It has all its parts in the correct shape that can stimulate a response from the immune system, what we call antigens. The immune response can be against multiple antigens.

No. Different COVID-19 vaccines use different technologies, or “platforms”. The most conventional one is the inactivated vaccine. It contains dead virus. Because the virus is still whole, it has all of the parts, in the correct shape, that can stimulate a response from the immune system – what we call the antigens. The immune response can be against multiple antigens.

And so that is the platform that he’s referring to. It is an inactivated viral vaccine.

They say it’s a great technology. It works for human and veterinary vaccines, used for the seasonal flu vaccine some years ago.

And then they go on to talk about other types of vaccines. So we’re not so interested. And then of course, there’s the obligatory computer pictures.

So then we get down to the important point, which is how do you make these vaccines? And I’m going to read most of this.

It depends on the platform.



## So how do you make these vaccines?

It depends on the platform. For viral-vectored vaccines, you take some of your harmless cold virus after you have added the spike protein DNA to it and grow it in a cell culture. Although the virus has been altered so it can't reproduce in the body, it can still replicate in the specially designed cells in this cell culture.

You'll then have this bulking up of the virus over the course of a few days, anywhere from four litres of cell culture up to maybe 20, 30 litres. Really high-scale production can be carried out in steel tanks – the manufacturing environment can look a bit similar to a super-clean, sterile brewery. You have to make sure that your cells are in the best environment possible for them to

live and to allow the virus to grow. This requires monitoring many environmental factors in and around the cell culture – temperature, oxygen and CO<sub>2</sub> levels, acidity and so on.

You end up with this liquid that is full of the virus that you're interested in. But it's also full of materials that you don't want. So then you have what we call downstream processing, where you're purifying the virus vaccine away from all of the other components that you're not interested in.

That downstream process is very important and is highly controlled and evaluated. It involves a lot of filtration and chromatography. At the end you have to have a very safe sterile product that contains only what you want.

There are multiple steps, and at each stage you're taking samples and running experiments to show that you're purifying your product as you go along. Even though it can take only a few days to grow a batch of virus, it can take a long time to purify it and prove that it's pure, sterile and is what you say it is. The vaccine will only be released when you can prove that it's the exact purity, sterility and composition that you're claiming.

For inactivated vaccines, the process is similar. You grow up litres of the virus itself. And then you kill it in a specific way so that you maintain the structure of that dead virus. And then you take that and you inject it into people.

So we we're not talking about the viral vectored vaccines. But let me just go over this because they say it's the same for inactivated vaccines. The process is similar.

So then you have – you'll have this bulking up of the virus over course of a few days, anywhere from four liters of cell culture to maybe 20 to 30 liters. Really high-scale production can be carried out in steel tank. The manufacturing environment can look a bit similar to super clean, sterile brewery. You have to make sure that your cells are in the best environment possible for them to live and to allow the virus to grow. This requires monitoring many environmental factors in and around the cell culture, temperature, oxygen, CO<sub>2</sub> levels, acidity, and so on.



You end up with this liquid that is full of the virus you're interested in, but it's also full of materials you don't want. So then you have what we call downstream processing, where you're purifying the virus vaccine away from all the components that you're not interested in.

This downstream process is very important and highly controlled and evaluated. It involves a lot of filtration and chromatography. In the end, you have a very safe and sterile product that contains only what you want.

There are multiple steps and in each step you're taking samples and running experiments to show that you're purifying your product as you go along. Even though it can take a few days to grow a batch of virus it can take a long time to purify it, and it's pure, sterile and that's what you say it is. The vaccine will only be released when you can prove that it's the exact purity, sterility and composition you're claiming.

So here we get to the inactivated vaccines. The process is similar. You grow up liters of the virus itself, and then you kill it in a specific way so that you maintain the structure of that dead virus. And then you take that and you inject it into people.

For inactivated vaccines, the process is similar. You grow up ~~litres~~ of the virus itself. And then you kill it in a specific way so that you maintain the structure of that dead virus. And then you take that and you inject it into people.

So again you grow liters of the virus. Then you kill it in a specific way.

As far as I can tell, the two usual ways that the "virus" is killed is by heat inactivation. In other words, you heat it up. Or they use a chemical called formaldehyde, which they say kills the virus, but it maintains the structure of the now dead virus.

And then you take that brew, that culture material, and you inject that into people, sometimes with some amount of filtration or centrifugation or so-called purification.

Now let's go through these steps again.

And the question that I want to ask is:

**At which step in this process did the people who are making the inactivated vaccine prove there was a virus in this and then prove that it was the virus that was growing in their cell culture?**

That is actually the only question that we're interested in right now.

At which step, which part of this method was there the proof, or even I would say the *possible* proof, that you're dealing with an actual virus.

So let's go through all the steps very clearly, and with that methodically, with those questions in mind.

Which step is showing us the virus?

So they take a person who is sick and they say this looks like whatever illness they're talking about. In this case, we say that they have COVID.

Now you could say that the proof that they have COVID is – because we all know at this point that COVID has no particular pathognomonic symptoms.



# Do You Have Covid, Flu or R.S.V.?

• RARELY    •• SOMETIMES    ••• OFTEN

Symptoms	Cold	Flu	Covid-19	R.S.V.
Cough	•••	•••	•••	•••
Difficulty breathing	•	•	•••	••
Fatigue	••	•••	•••	•
Fever	•	•••	••	••
Headaches	••	•••	•••	••
Muscle pain or body aches	••	•••	••	•
New loss of taste or smell*	•	•	••	•
Runny or stuffy nose	•••	••	••	•••
Sneezing	•••	••	••	••
Sore throat	•••	••	•••	•
Vomiting or diarrhea	•	••	••	•
Wheezing	•	•	•	•••

\* A stuffy nose may temporarily decrease the ability to taste or smell but it does not cause a sudden, complete loss of these senses. Source: Centers for Disease Control and Prevention



Let me just show you that just to make sure everybody is on the same page. These are the symptoms of cold, flu, COVID and RSV. And you can see they're basically identical. I won't spend a lot of time on this.

- No particular set of signs or symptoms can reliably discriminate COVID-19 from other respiratory viral illnesses such as influenza
  - Anosmia/dysgeusia
- Most people will recover spontaneously with supportive care
- Typical complications include pneumonia, respiratory failure, multiorgan system failure, and death

Here's another one that says from the CDC. No particular set of signs or symptoms can reliably discriminate COVID-19 from other respiratory viral illnesses, such as the flu.

So there is no possible way by looking at a person, examining the person, that you can say they have COVID.

Even if you could do that, which you can't, that certainly doesn't demonstrate that the reason they're sick is because they have a virus.

I certainly hope everybody would agree with that. All you know at this point is this person is sick with a non-specific respiratory illness.

OK, so then you take a sample of liquid or fluid from that patient, either a bronchial sample or mucus from their nose, or maybe something else. But those are the usual ones.

And let's look at that. So there's no examination done on that specimen. So there's no possible way that could show you that there's a virus there, because actually nothing is investigated.

So then they put it through some, I would say not purification steps, but they clarify it by putting it either through a filter that filters out the dead cells and the bacteria. And so all you have then is whatever is liquid from the person's mucus or lungs.

And I would think that there is nobody who knows anything about this who would say that is a purified virus or it even shows you the existence of a virus.

Sometimes they do a different clarification process which is called centrifuging it, again not looking for a virus but just to get rid of the cells and the bacteria.

And then they have the supernatant, the liquid part. And importantly, and this is a crucial part of this analysis, there is no test done on this that could demonstrate the existence of a virus.

They might do a PCR test, which is not a test. But we have to remember that these are PCR processes that can never show the existence of a virus. And the PCR process that is being used for SARS-CoV-2, we all remember was made by Christian Drosten who said "We made this PCR without having access to any viral material."

So nobody could possibly claim that the PCR examination of this centrifuged or filtered fluid could possibly prove the existence of a virus.

There is no ultracentrifugation done at this step. There's no electron microscopy analysis of the fluid. So we have no idea whether or not there's a virus, a particle that you could call a virus, in this supernatant or filtered fluid.

And importantly, nobody at this point is looking for a virus or claiming that somehow these steps have found or demonstrated the existence of a virus.

So that should be clear.

So now let's say they filtered it. So we have all the liquid parts that come from the mucus or lung fluid of a sick person.

We don't know why they're sick. We haven't seen any virus.

We have the liquid, which contains probably hundreds, maybe more types of things. It has proteins, nucleic acids, minerals, lots of maybe poisons, toxins if they're in there.

Lots of things are in there. I dare say nobody would claim that is a pure virus.

So they take this fluid and they mix that into these big vats that contain cell cultures, mostly some type of Vero cells. Then they add antibiotics, like usually gentamicin, antifungals like amphotericin, both of which we have presented papers that are showing both of these are toxic to kidney cells and other types of cells. Therefore could be the reason for the breakdown of these cells.

They change the nutrient blend and they also add fetal calf serum to this. They change the temperature a little bit and maybe the pH. So they add some other chemicals. And then to this they add this mixture of many different substances, which may or may not include a virus – but the virus has never been seen.

Now, if you're doing a scientific experiment, as we all again know by now, you have a dependent variable, which is the effect you're looking for.

Which in this case then you're looking for: Do these cells die? That's called the cytopathic effect. And then you're testing an independent variable, which is meant to be one thing that you're trying to investigate whether it caused this effect that you're looking for.

So if we're trying to prove that only a virus caused the death of these cells, only the virus grew in this culture and caused the death of these cells, then by definition, the virus would have to be the independent variable.

But in fact, what is the independent variable here?



So the independent variable is a combination of antibiotics, change in nutrients and all the things that are soluble from the bronchial fluid of a sick person.

There is at no point up till now any even attempt to establish that there's a virus. All we can say is that some component of that of that mix – the soluble part of what's in somebody who's sick, the antibiotics, antifungals, change in nutrients, fetal bovine serum – some part of that broke down the cells, made it so that these broken-down cells created, essentially, cellular debris, which as we've said over and over again are then misinterpreted as viruses. So the cells breakdown into all this debris.

No attempt is made by these Chinese manufacturers then to identify any virus or prove that any virus is in that vat of broken-down-now cells, antibiotics, filtrate from the person who is sick, et cetera. No attempt.

They put that into vials and that's the vaccine.

So the question for Doctor McCullough is:

**Which step in there proved the existence of a virus?**

**Which step in there was the so-called isolation of the virus?**

Now let's define isolation. As Derrick Broze said, isolation means to take something out of its environment so that you only have that single thing.

If I have a bunch of things on my desk and I take the pencil, I have now isolated the pencil and only the pencil from my desk.

In which step up till now did they "isolate" the virus?

Because, as far as I can see, not only did they fail to isolate the virus. At this point nobody has even attempted

to demonstrate there's even a virus in this process – at any point in the process.

The importance of this is, if you haven't isolated and, therefore, seen and proven the virus to exist, any further evaluation – such as pictures with an electron microscopy or evaluating parts of it like proteins or nucleic acids – you have no idea the origin of those nucleic acids, proteins, antibodies or anything else in there, because at no point in this process did you obtain a pure sample.

So let's be very clear what we're asking you.

**We're asking you to present proof, evidence, that at some point in this process, you have obtained a pure virus. You've seen it on an electron microscopy. There's nothing else in there but the virus. You've proven that that virus came from the original person. You've then proved that all of the nucleic acids come from that particle, which you have purified. That there's no chance those particles came from the cells or the fetal bovine calf serum, or anything else part of that mix.**

That's what we're asking you.

Not whether they **say** they isolated it. Not whether they **say** there's electron microscopy pictures. Not whether they **say** that the PCR proves that there's a virus even though they got the PCR test, essentially without even having an isolated or purified virus, which is their own words.

We are asking for validating the methodology of that vaccine production process which you stated should be considered proof that they isolated the virus.

I'm hoping that this is very clear. And in any future discussions we have about the existence of the virus, it has to start with:

*Did you find the virus in its natural ecosystem?*

The answer, of course, is no.

*And then, if you isolate the virus, as you say, through the cell culture process, how did you prove that the virus existed in the first place in order to do an experiment with it?*

*And how have you proven that the cytopathic effect could have only come from the virus?*

Because every experiment that we've looked at has shown just the opposite.

### **See Related:**

[Dr. Stefan Lanka & Dr. Tom Cowan: How We Got Into This Mess – The History of Virology & Deep Medical Deceptions](#)

[Dr. Tom Cowan With Dr. Mark Bailey: "SARS-CoV-2 Virus Could Never Have Been Leaked From a Lab Because No Such Particle Has Been Proven to Exist. Ever."](#)