

Control Challenges: To all virologists and those studying virology

Germ theory basics

Germ Theory states that germs cause disease. Heinrich Hermann Robert Koch (1843–1910) is considered one of the founders of modern bacteriology. His research led to the creation of Koch's postulates, which are a set of four conditions that have to be met to prove the infectious cause for a specific set of symptoms.

Koch's postulates are for bacteria, not for viruses, which are about one thousand times smaller.

In 1937, Thomas Rivers modified Koch's postulates in order to determine the infectious nature of viruses. Rivers' postulates/criteria are as follows:

1. The virus can be isolated from diseased hosts.
2. The virus can be cultivated in host cells.
3. Proof of filterability—the virus can be filtered from a medium that also contains bacteria.
4. The filtered virus will produce a comparable disease when the cultivated virus is used to infect experimental animals.
5. The virus can be re-isolated from the infected experimental animal.
6. A specific immune response to the virus can be detected.

In order to carry out isolation and prove infectiousness of viruses, John Enders (the father of modern jabs) came up with a technique in the 1950s which is still in use today (including for sarscov2, which is the alleged cause of covid-19). **In reality, he did not isolate anything or prove causation by a 'pathogen/virus' – more on that below.**

Procedure followed for 'isolation' and proof of 'contagion/infectiousness'

This is how Enders and later other virologists traditionally 'isolate' viruses and prove their 'infectiousness'.

1. They take samples from 'diseased' patients (exhibiting a set of common symptoms), which are a mix of genetic material from different sources.
2. These sources are lung cells, microorganisms such as bacteria and fungi, free genetic material in lung fluid including RNA, extracellular vesicles, exosomes, and other tissue debris due to toxicities such as bad air, bad food, bad water, heavy metals, electromagnetic radiation, and so on.
3. These samples are collected from nasal passages, or back of the throat, or bronchoalveolar lavage, or sputum, or stool specimens.
4. **No virus is purified or isolated from this mixture (that is, maceration, filtration, ultra-centrifugation is not done).** This would normally be done using the density gradient configuration, which is the scientifically required standard technique (described in all microbiology manuals as the 'virus isolation technique').
5. They mix this **un-purified concoction** with more genetic material from sources such as monkey kidney cells (also known as vero cells), liver cancer cells, bovine serum, and so on. The latter are called host cells.
6. **They also add antibiotics to this mixture, typically antibiotics that are known to be harmful to kidney cells.**
7. **They also grow this culture in minimal nutrition medium - in other words, they starve the aforementioned mixture of genetic material.**
8. They then observe the cytopathic effect (CPE) after a few days.

9. As per virologists, Cytopathic Effects (CPE) are indicated by the changes in host cell morphology which are caused by the 'target infecting' virus.
10. The common visual observations of the host cells are swelling or shrinkage, rounding, lysis, plaques, clumping, syncytia, and inclusions.
11. In general, the viruses that have the ability to cause degeneration of the host cells are called cytopathogenic by virologists.

AIM's control challenge

AIM challenges all established virologists and virology students to conduct the above procedure with only 1 change. Instead of taking samples from diseased individuals, **samples are to be taken from healthy individuals** (step 1) and all the remaining steps followed. **No sample control study may also be done.** That is, **no sample is required to be added, just the other steps to be followed.**

CPE status may be reported after all the other steps are followed in identical fashion (**absolutely the same degree of minimal nutrition, same amount of antibiotics, same host cells**). This is presented in tabular form below:

		Addition of other genetic material, especially monkey kidney tissue (Host cells)	Addition of antibiotics harmful to kidney tissue	Growing of culture in minimal nutrition medium	Cytopathic Effect
Usual method	Sample from an 'infected' individual	Yes	Yes	Yes	Yes
Required control method	Sample from a healthy individual or <u>no sample at all</u>	Yes	Yes	Yes	?

If we observe CPE, then its cause is the deprivation of nutrients as well as the addition of antibiotics.

If we don't observe CPE, then it means that samples from 'infected' individuals was what caused CPE in the original experiment (usual method).

AIM's challenge # 2

In addition, in the required control method (**sample from a healthy individual or no sample at all**), we challenge virologists to ***NOT*** find the genome of all known viruses. **At least one world-renowned virologist and microbiologist has been able to find the genome of all known viruses using these methods whilst not adding genetic material from any sample (no sample!).**

All virologists and wannabe virologists anywhere in the world are welcome to take up these challenges. We are eager to hear from you.