Is there a strategy we can employ in the future to control a pandemic? And what can help you as an individual to live as close to normal as possible during a pandemic? This article highlights some of the actions we need to take now so that in the future we will be able to get trough a pandemic faster(as fast as 2 weeks) and with less disruption to our lives.

The minimum time of isolation in a pandemic is equal to the maximum time of incubation plus convalescence, that is the time between when you got infected and when you are healed by your immune system.

This short time can be achieved if and only if we can achieve simultaneous full isolation of all people on Earth. Before you deem it impossible please keep reading.

Since for all viruses we know this time is ~14 days, then if once detected for the first time, ALL people on Earth go in complete isolation then we can destroy the virus in one single sweep by simply denying the pathogen the ability to reproduce. In this article I'm analyzing this idea and what we need to realize it.

The New Corona Virus pandemic started around November 2019 and is tagged all over the web with tags like #COVID, #COVID19, #COVID-19, #CoronaVirus etc. All this mess is created by a sub-micron size biological entity we call viruses. The thing is so small that it can't be seen on a regular microscope using visible light no matter how much magnification we try.This is due to visible light's wavelength that is from 380nm(blue) to 780nm(red) whereas a virus size is is somewhere between 30 to 220nm, way smaller than the visible wavelengths. This means that the visible light simply "goes around" them. To "see" viruses we need electron microscopes and we get pictures like the ones in the Wikipedia article about viruses.

The fact a virus is so small it means that (for now) only expensive laboratory equipment can image a virus particle. The internet is now full of images of viruses, just type "virus" in a Google search(or other search engines, Yes! there are other

search engines out there!) and select the "images" class of results and your screen will be flood with images. At the same time we also have a lot of created (by artists) and digitally edited images showing also viruses. It is not hard for some of us to get confused and ask what is real and what not.

Though I can't help you remove your confusion by simply saying "believe me" I can only tell you that If fully believe is that viruses are as real as you and me and you can learn how to protect yourself against them.

Please remember though that only a small fraction of viruses and bacteria are dangerous, bacteria are part of the great chain of life on Earth (and in your own body) and viruses can be used to fight pathogens, cancer and other illnesses.

So what do we need to do to protect ourselves?

The answer to that question is not singular, three different things must happen at different times so that you will be protected against a pathogen (virus or bacteria) destructive actions.

1. **Information** – early detection by any human being
   standard, personal, fully automated, pathogen new DNA/RNA detection (such as the one Nanopore Tech) is providing and global automated notification system (a many-to-many factual approach)
2. **Avoidance via isolation** – using personal full isolation PPE (personal protection equipment)
   this is an enclosure with the ability to allow its inhabitant to live in full physical isolation where all material exchange is fully controlled
   This simply means to deny the virus transmission form person to person
3. **Immunity** – train your body to identify the virus and produce the necessary substances that will destroy the virus once it enters your body

When all those three abilities are mastered by any human out there then we should be able to control the spread of basically any pathogen and deny the existence of pandemics of any nature (natural mutations, genetics mishaps, bio terrorism?) in the future.

The basic scenario in such a future would go like this. Everyday at any time of your choosing but probably best as part of the ritual we all (should) do before going to sleep and brush our teeth (oral hygiene) the device we use for it will sample our oral microbial and viral profile by scanning the DNA/RNA profile of all micro-life in the sample store it in a personal database that compares it to the one sampled the day before.

If any new genome is detected then that information is immediately shared with ALL people on earth. The DNA/RNA information is then used be everyone as a group to decide if it poses a threat. This decision can take some time as not all new mutated viral or bacterial genetic material is dangerous but we should be able to track all its changes in humans or borrowed for environment (as in animal to human transmission).

Once the new genome is decided as dangerous, everyone goes in self isolation. Since the pathogen's ability to be transmitted is fully denied we can expect that the viral material will be fully destroyed by the natural immune responses.

The decision of to declare a genome as dangerous is made as a group in a many-to-many communication mode by using well defined commonly accepted protocols (global legal system?). From all requirements in this paper this will definitely test us the most. It will not be easy, but I believe and hope that for our own good we will be able to come together on this one.

During the isolation, all people continue to fully communicate with each other and continue to do what they were doing before but in remote mode. During the

isolation, the tests continue as they did before in order to detect when the pathogen was destroyed (can't be detected anymore).

At the same time (in isolation) each person's spare computation power and bio test abilities are used to search for a vaccines or solution to the problem. This is important as to search fast for a solution a highly parallel process is required in order to test fast most possible solutions.

Once again we can only succeed by working together!

Once the pathogen is destroyed a common decision (many-to-many mode) is made and the isolation can end. The maximum time spent in isolation should not be longer than the one pathogen cycle (infection to convalescence) if we can work all as one.

During the isolation some people will need help as their body will be fighting the pathogen, the isolation system must include automated and remote control human care.

The bits and pieces of the technology and knowledge to achieve this type of solution are present.

We have the internet for implementing a many-to-many communication system.

We know how to read and decode genomes but the devices needed to do that are not yet small enough and cheap enough so every person would own one. Additionally all information gathered must be gathered by using a factual enabled sensor devices.

This is where more effort needs to be done to bring this ability to everyone. To do so microelectronic technologies and biologic tech needs to come together. This is

doable we need to work on it.

We know how to create full containment enclosures, we have the technology to automate all human care we just need to put them together to achieve the ability to self isolate with zero loss of abilities to control out environment and help other people of living things by using remote presence.

If this sounds like Sci-Fi then you need to know that it is not, we can do this if we work together and the benefits of doing so are enormous for the future.

This article will be edited in the future to add more information, info-graphics etc. for now its just the idea the bare bone text.

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