([00:02](https://www.temi.com/editor/t/PYbb6jm5L5pH990RJjfP9gGpgKrRCT3D3gja09DU1qWIerXvRPakPHFZEhMzn9QBjT_8QExNozEwlV1unTMIzdDBbCg?loadFrom=DocumentDeeplink&ts=2.43)):

Thank you. Thank you so much for your kind introductory words. Uh, uh, I'm extending a very warm welcome to all of you. And I feel honored to have the opportunity to speak to you. Uh, I will present a number of slides, but, uh, I will, of course be available for questions that you may have. So there's a few things that before I share my screen to walk you through the slides, there is a few things that I would like to say in advance. First of all, I think it's very important that people realize that a vaccine is very, very different from a drug. Getting vaccinated is like getting a software program on your computer that you cannot erase. So it's like installing a software that is certainly not easy to erase. It's not like a direct that can be eliminated within a few days from your body.

([01:12](https://www.temi.com/editor/t/PYbb6jm5L5pH990RJjfP9gGpgKrRCT3D3gja09DU1qWIerXvRPakPHFZEhMzn9QBjT_8QExNozEwlV1unTMIzdDBbCg?loadFrom=DocumentDeeplink&ts=72.3)):

A vaccine is a message that imprints your immune system and that the immune system will remember in fact for the rest of your life. So it's not a decision to be taken a light to get vaccinated. That is one thing I would like to say. The second thing I would like to say is that nobody, nobody should be afraid of becoming ill or becoming the disease as long as it is not severe disease. All of us have contracted diseases have been mildly or moderately ill have been in bed for a number of days. None of these is very resolved. What is worrisome is to get severe disease, to need to be hospitalized, et cetera. And the third thing I would like to say is that all I will present you is based on my long standing career as a vaccinologist and primarily, and in fact, exclusively on science, but not a and nothing else, but the science. So with that, I would like to share my screen and, um, uh, so that we can start a presentation. Uh, let me have, yeah. That's oh, okay. So can, uh, can everybody see my, uh, my screen? Yes. Yeah. Okay. So the title of my presentation is, as I was saying, everything I'm going to tell you is based on the signs and according to the signs, it is really not justifiable to

([02:59](https://www.temi.com/editor/t/PYbb6jm5L5pH990RJjfP9gGpgKrRCT3D3gja09DU1qWIerXvRPakPHFZEhMzn9QBjT_8QExNozEwlV1unTMIzdDBbCg?loadFrom=DocumentDeeplink&ts=179.32)):

Issue vaccine mandates. Those vaccine mandates can not be, cannot be justified on the contrary. I know this is a very strong statement that I will explain you. Why is it? Well, first of all, uh, let me have a look at the slides. Uh, some of the slides are very busy, but no worries. We will take our time to walk you through them. I just wanted, first of all, to spend a few words on innate immunity, innate immunity is something you may not even have heard of during this whole pandemic crisis, because it is a type of immunity that we have from the very beginning of our life that we have already as of birth, that is very, very powerful, but that is something that we have been given from nature that is not induced by vaccines. So when you hear about vaccines, there is never ever a talk about innate immunity because the innate immunity is something that you get naturally as from birth, whereas vaccines in use what we call acquired immunity or adaptive immunity.

([04:13](https://www.temi.com/editor/t/PYbb6jm5L5pH990RJjfP9gGpgKrRCT3D3gja09DU1qWIerXvRPakPHFZEhMzn9QBjT_8QExNozEwlV1unTMIzdDBbCg?loadFrom=DocumentDeeplink&ts=253.69)):

So why is innate immunity so precious? Well, first of all, as I said, innate immunity is present at birth and it protects children from a multitude of different diseases. So these are essentially antibodies that you have already a birth without having seen any pathogen. We don't having seen any vaccine and it protects children from a multitude of diseases, including a number of viral diseases. For example, Corona virus. I'm not even talking about SARS COVID too, because that is automatically included. It's not just a source code. We do. It's all Corona viruses. You know, we have a number of Corona viruses that are responsible for common colds and, um, the innate immunity protects against all this, uh, all these viruses, but also for example, against influenza virus. And remember we never ever vaccinate our children against the flu let alone that we would do mass vaccination across all age groups against the influenza virus.

([05:21](https://www.temi.com/editor/t/PYbb6jm5L5pH990RJjfP9gGpgKrRCT3D3gja09DU1qWIerXvRPakPHFZEhMzn9QBjT_8QExNozEwlV1unTMIzdDBbCg?loadFrom=DocumentDeeplink&ts=321.73)):

We typically, we typically immunize people who are vulnerable against this disease. So then fill the role means that their innate immunity is compromised. Their innate immunity is compromised because they have, for example, underlying diseases. Or we know that also with aging, the innate immunity is weakened, but very often also with aging people start to get some underlying diseases, which of course is then we can in that innate immunity. And remember, as the pandemic started, when we had two hand that was circulating, we didn't have young and healthy people. And even also, uh, elderly people who were in, in, in good health didn't suffer from, from this virus, maybe they got mild or moderate illness, but the people who overeat this suffering were essentially people, uh, older ages above 70, 75, 80, et cetera. And of course also people with underlying diseases. So innate immunity, I'm not saying that it protects you against all kinds of different disease and all kinds of different pathogens, but definitely there are a number of viruses like the grownup virus, like influenza virus, and also some other inspiratory viruses that you get protected against.

([06:43](https://www.temi.com/editor/t/PYbb6jm5L5pH990RJjfP9gGpgKrRCT3D3gja09DU1qWIerXvRPakPHFZEhMzn9QBjT_8QExNozEwlV1unTMIzdDBbCg?loadFrom=DocumentDeeplink&ts=403.13)):

Thanks to innate immunity provided innate immunity is in good shape. That means people are in good health. That is very, very important to understand. Innate immunity is generally acknowledged as our first line of immune defense. And it has just like acquired immunity. It has an antibody component that antibody component B called innate antibodies. And it has a cellular component, an innate component that is based on a cellular defense. That is largely, that is largely in fact, you to natural killer cells. And this innate immunity is fantastic because it not only protects you against diseases, it can even prevent infection or it can abrogate infection. What means abrogate infection? That means that when the virus infects a cell NK cells, natural killer cells can kill that virus infected cell. And by doing so, the infection is abrogate. So in contrast to vaccine and used immunity, innate immunity enables what we call sterilizing immunity.

([07:58](https://www.temi.com/editor/t/PYbb6jm5L5pH990RJjfP9gGpgKrRCT3D3gja09DU1qWIerXvRPakPHFZEhMzn9QBjT_8QExNozEwlV1unTMIzdDBbCg?loadFrom=DocumentDeeplink&ts=478.16)):

It can sterilize the virus, it can kill the virus. It can eliminate the virus, make dividers disappears, and therefore it is a key pillar of herd immunity. I'm sure you've all heard, heard about herd immunity and herd immunity is in fact, the property of a population to protect people who have no immunity or who have very bad immunity, because the vast majority of people or protected have some kind of immunity that prevents them from transmitting the virus. And if the virus doesn't get transmitted in high frequency, then the likelihood of somebody who is not protected to be protected, thanks to this low, low degree of transmission or lack of transmission becomes very, very hard. And that is what is hurt immunity. If there is one thing that all experts, regardless of whether they are Peru, mass vaccination or against max mass vaccination agree up, and right now is that the current vaccine and the current COVID-19 mass vaccination campaigns do not contribute, do not contribute whatsoever to herd immunity because these vaccines or not capable of preventing the transmission of the virus.

([09:26](https://www.temi.com/editor/t/PYbb6jm5L5pH990RJjfP9gGpgKrRCT3D3gja09DU1qWIerXvRPakPHFZEhMzn9QBjT_8QExNozEwlV1unTMIzdDBbCg?loadFrom=DocumentDeeplink&ts=566.01)):

And that is something which is now published everywhere that people were vaccinated can shed the virus can transmit the virus. So there is no hope that with this mass vaccination, we will ever have herd immunity and without a herd immunity, it is impossible, impossible to obtain a pandemic because the only way you can tame a pandemic is by cutting curtailing transmission of the virus. Okay? So as innate immunities in the evening, it can also operate immediately when you get attacked by a pathogen, as you know, with the vaccines, for example, it takes a lot of time before the full fledged antibody response is established very often with vaccines. You need even two doses. And after each dose, you, you need to wait for a number of days or weeks before you have, uh, an antibody response that is sufficient. And that will, to some extent, at least protect you against the disease.

([10:31](https://www.temi.com/editor/t/PYbb6jm5L5pH990RJjfP9gGpgKrRCT3D3gja09DU1qWIerXvRPakPHFZEhMzn9QBjT_8QExNozEwlV1unTMIzdDBbCg?loadFrom=DocumentDeeplink&ts=631.83)):

So that is a process that takes time in anything unity is ready to go. This is like a Bri primed immune defense that can immediately operate upon attack, better pathogen. So it does not need to mature, uh, before full-fledged protection is provided. And because innate immunity, as I just mentioned, protects against the broad and diversified spectrum of respiratory viruses, such as Corona virus, flu virus, most likely also a respiratory syncytial virus or as V virus well solve school V two for that reason is typically not a childhood disease. Of course, just like for flu children get infected, but today can fight this infection. They can clear the virus bureau provided they are in good health. So it's not a childhood disease. And of course, with aging, as I mentioned, the titles of the innate antibodies they wane, and that may therefore result in enhanced susceptibility of older age groups.

([11:41](https://www.temi.com/editor/t/PYbb6jm5L5pH990RJjfP9gGpgKrRCT3D3gja09DU1qWIerXvRPakPHFZEhMzn9QBjT_8QExNozEwlV1unTMIzdDBbCg?loadFrom=DocumentDeeplink&ts=701.85)):

So innate immunity is waning with age, but not necessarily. There are even people 85, 90 years old who still have managed to not have underlying diseases or in good shape, have a healthy lifestyle. And even these people will not get the disease. They can be protected against the disease, but of course, in general, if you talk about averages, you will see indeed that the frequency of underlying diseases will increase with age. And of course there is an aging process also of the immune system. So the likelihood indeed that at an older age, you can get not only the infection, but also the disease, uh, becomes higher. But the protection, especially from children is such that there have been early on in the pandemic publications, even that I'm citing here, uh, which were pointing to the immune system of children to really understand what is, what we call the correlate of protection.

([12:50](https://www.temi.com/editor/t/PYbb6jm5L5pH990RJjfP9gGpgKrRCT3D3gja09DU1qWIerXvRPakPHFZEhMzn9QBjT_8QExNozEwlV1unTMIzdDBbCg?loadFrom=DocumentDeeplink&ts=770.35)):

What is it really that protects people from SASCO V2? And what is it that prevents them from having the disease? Because remember, nobody, nobody seems to realize, at least from our public health experts, that at the beginning of this pandemic, we go to war and strain that was really rapidly spreading. And this was a virus that was completely new to our populations. So we call this in our terminology, immunologically naive. So the population was immunologically naive to this virus. So had no antibodies and guess what, nobody except for vulnerable people or people with underlying diseases was getting the disease or at most, some mild, or maybe some moderate illness, a few days in bed, et cetera. So how can that be for El? The explanation is that people in good health or protected by, by their innate immune system. And that is what is what got explored in children.

([14:02](https://www.temi.com/editor/t/PYbb6jm5L5pH990RJjfP9gGpgKrRCT3D3gja09DU1qWIerXvRPakPHFZEhMzn9QBjT_8QExNozEwlV1unTMIzdDBbCg?loadFrom=DocumentDeeplink&ts=842.62)):

And what got also published that this is the key to understanding SASCO V2 susceptibility. If your innate immune system gets compromised, then of course your immune defense against a number of these viruses will also be compromised. So the question is then, so why does innate immunity not protect against all viral diseases? So that would be easy. Then we could completely forget about vaccines and just rely on our innate immune system. Unfortunately, that is not the case, but definitely what I'm telling you is that here we are dealing with the virus that can be eliminated by our innate immune system. So here we are definitely with the virus, for which innate immunity is very important. It's not a case for all viruses because some viruses have a very high affinity for their receptors. And even before they can be captured by the innate antibodies that would otherwise neutralize the virus, the virus has already bound to the receptors.

([15:16](https://www.temi.com/editor/t/PYbb6jm5L5pH990RJjfP9gGpgKrRCT3D3gja09DU1qWIerXvRPakPHFZEhMzn9QBjT_8QExNozEwlV1unTMIzdDBbCg?loadFrom=DocumentDeeplink&ts=916.13)):

So the affinity of the receptive for the virus is much higher than the affinity of the innate antibodies for the virus. And that of course causes a number of diseases for which it needs antibodies come too late, or they are not sufficiently strong to bind a new derives device. So that is one, uh, one case where we of course still need vaccines. Another case is for example, in case viruses or a highly infectious, when you're highly infectious, they can easily break through the host innate immune defense. So they can easily grate through this barrier of antibodies and in case cells and in order to prevent them. That is the case, for example, with measles, uh, I mean, I'm sure you all have heard about epidemics of measles. That can be very devastating and that spread very, very rapidly, highly infectious disease.

([16:29](https://www.temi.com/editor/t/PYbb6jm5L5pH990RJjfP9gGpgKrRCT3D3gja09DU1qWIerXvRPakPHFZEhMzn9QBjT_8QExNozEwlV1unTMIzdDBbCg?loadFrom=DocumentDeeplink&ts=989.48)):

We have no choice, but to vaccinate in order to make sure that children, for example, have high tides of antibodies against measles that can protect them. So that by the time they get infected by the vibes, dividers gets neutralized immediately by the antibodies that are in the blocks. So these are then also viruses would also be bacteria. Of course, that typically cause childhood diseases. It's not that they're infected children. They can also cause disease in children. That is not the case. As I was saying with our school, we do it with COVID-19 disease. So that is why we definitely need vaccines. For example, to fight chronic diseases or a number of these diseases like HIV, like hepatitis C, et cetera, belong to this category may have really strong affinity between the virus and the receptor and insufficient capacity of the innate antibodies. Unfortunately, for these type of diseases, we still don't have standalone vaccines. Unfortunately then there are the older vaccine, the other pathogens that are highly infectious, that cause childhood diseases. And for which we do have actions, and I want to stress that I'm certainly not, not

([17:49](https://www.temi.com/editor/t/PYbb6jm5L5pH990RJjfP9gGpgKrRCT3D3gja09DU1qWIerXvRPakPHFZEhMzn9QBjT_8QExNozEwlV1unTMIzdDBbCg?loadFrom=DocumentDeeplink&ts=1069.95)):

Against vaccines. Vaccines have saved hundreds of millions of lives, but it's not true for every single virus. We need a vaccine. And a clear example is the kind of infection that kind of virus we are dealing with right now. And that is causing this epidemic.