

INTERVIEW TO SERGIO ROMAGNANI

## **"Veneto is controlling the coronavirus because it hasn't followed the WHO"**

He was one of the first scientists to warn of the risk to Europe and has overseen the most successful experiment and one of the most enlightening in the fight against the coronavirus

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Sergio Romagnani has seen many epidemics, but he says this is the first in which he personally considers himself a "target". "I am aware of how serious an infection would be at my age. I've never come across anything like it. HIV, for example, was very serious, but it was solved with very simple measures," he says on the phone from his home. He is 81 years old, a professor emeritus at the University of Florence, an eminence in the field of immunology and internal medicine, and one of the 30 most cited Italian scientists. He is so busy these days that we had to locate his daughter in order to interview him.

Romagnani began to alert Tuscan public opinion before almost anyone took the problem seriously in Europe and it was precisely one of his disciples, Andrea Crisanti, from the University of Padua, who is achieving what may be the first setback of the Covid-19 in European territory: the 'battle' of Veneto. There, the virus broke out with violence, but it retreated after a series of measures that other territories were unable to adopt in time.

If Lombardy (Milan/Bergamo) is the cross of the coin, Veneto (Padua/Venice) is the other side. At the last official count, Veneto recorded 662 deaths and 11,000 confirmed cases. Meanwhile, Lombardy had over 9,200 deaths and nearly 52,000 cases. The key? With such disparate figures, the two have performed almost the same number of tests.



QUESTION. In the town of Vò Euganeo (Veneto, north of Italy) one of the first outbreaks occurred. They decided to test the whole population, the 3,500 inhabitants, and to isolate all the positive ones, including the asymptomatic ones. And the epidemic was stopped in its tracks, unlike what happened in Lombardy... or Madrid.

ANSWER. Vò is a town where there was a situation very similar to that of Codogno (Lombardy). In fact, there had been contacts between the two towns, which are very close although they belong to different regions. And just like in Codogno, Vò became a 'red zone' from the beginning and was completely closed to the population. The difference is that here my disciple, Andrea Crisanti, with whom I have spoken a lot these days, came into play. On his advice, the authorities decided to test all the inhabitants of the village.

Q. And what was the result?

A. The result was obtained on a very small sample, but it is still very revealing. A total of 58 people tested positive between 22nd and 25th February, and of these 33 were totally asymptomatic. Of those under 50, most were. We hypothesized that 50-70% of those infected would not be developing symptoms, which was reported in the Italian newspapers. Most importantly, 10 days later only 19 of the asymptomatic and 10 of those with symptoms tested positive.

Q. A later study in China shows that about 80% of the infections are caused by undetected infections, including asymptomatic ones.

A. Of course, because there are many of them and they are a formidable source of contagion. That's why they have to be isolated immediately. Most of them were young and healthy people. But the most interesting thing of all is that when the asymptomatic infected were isolated in Vò, the percentage of sick people dropped suddenly from 3.2% to 0.3%. More than 10 times! We concluded that the circulation of the virus around the same person, even if he or she is already infected, aggravates his or her pathology.

Q. Before we go on with that, I have a doubt, the asymptomatic ones didn't present symptoms after the first test, right?

A. No, no. I tell you that after 10 days they were tested again and more than half were negative. I think only one person died in the whole outbreak there. Compare it with Codogno, where there have been so many victims! Crisanti's impression, which I share, is that perhaps it was the isolation of those who were asymptomatic and positive that slowed down the epidemic. It is a hypothesis, but we believe that when the virus circulates many times in the same environment, it enhances its action.

Q. This would explain why health workers have suffered more from the disease than other groups, not only because of the risk of contagion but also because of the evolution of the pathology.

A. The Vò patients who developed a serious illness were elderly people living in a community, while those we isolated had a much less serious evolution. We believe that repeated exposure aggravates everything. **It is as if the insignificant mutations that the virus undergoes make it much more dangerous for those who are continually exposed to its presence.**

Q. I imagine you are aware of the evolution of the Covid-19 in Spain.

A. I follow you on the news. I think the same thing is happening in Madrid as in Lombardy. In Lombardy they have not tested the asymptomatic, only those who already have symptoms. And they have not wanted to wear masks. Two enormous strategic errors, which are what have unleashed the tragedy. Lombardy is like Madrid, you know: we have many people in intensive care.

Q. In Spanish nursing homes the situation is hellish. In Italy?

A. They are a tragic incubator for the virus. We have seen it here too: all the old people get sick. Why? Because they didn't test the personnel who work there, those who take care of them, who are in many cases asymptomatic and are the ones who have brought the virus to the elderly. These are people who lived a normal life, went in there, infected the old people and the end of the world came. Here we have homes where up to 50 and 80% of the people have been infected. The only way to stop it is to test all the staff who work there and immediately remove those who test positive. If we don't do that, they'll continue to die.

Q. I understand that another thing that has been done very well in Veneto is to avoid the hospitalization of all patients with symptoms. Keep them away.

A. The virus is very dangerous in closed environments where there are many people. That is why we must act immediately in hospitals and medical clinics. The disaster in Bergamo began precisely in an Emergency Room, where they did not realize that a patient with symptoms had arrived, which was the one that infected the doctors, the nurses, all the patients... The one who passed by there came out with the virus. That's how the epidemic broke out in Bergamo. That's the truth.

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Q. And in the Veneto it became different, right?

A. As soon as they created the 'red zone', they isolated everyone, even the asymptomatic ones... They stopped the outbreak. In the north, in the area of Bergamo (Lombardy), there are big industries that produce a lot. It was valued differently for economic reasons perhaps. And you see the result... In the end we had to paralyze the whole nation because of those initial errors.

Q. You say that another mistake was advising the population not to wear masks.

A. That was a huge mistake. Huge! Masks obviously don't provide 100% protection, but if everyone wears them, the risk of contagion drops dramatically. **When the doctors sent from China arrived, they were stunned. They told us that if we were crazy.** It is

true that they are used to wearing them because of contamination, etc., but they could not believe that in Italy the authorities recommended otherwise.

Q. Has the management of the Asian countries been as good as perceived from here?

A. Very good. Look, a very dangerous place is the elevators. The Chinese have disinfectant tissues in them for protection, and in South Korea they have done even better! There they've done like in Vò, but also using technological means to track the phones. They have control over all the positives, they know where they're going, who they've had contact with... and they immediately isolate them. On January 27th, the people in charge of their epidemic control centre met and in seven weeks they had tests for everyone, purchased from the most reliable company. They did hundreds of thousands of tests. Like in Vò, but in a big way.

Q. At the beginning of the epidemic, the economic expense of buying and making so many tests was questioned.

A. How much does a test cost? About ten euros? Anything else? I say this because having a patient in intensive care for 20 days in Italy costs between 50,000 and 60,000 euros.

Q. Considering how the epidemic has advanced, should we test the entire population?

A. It is impossible to test a whole country, that is impossible. **But what you can do is choose who you test and not stop. You have to start with the categories that can be a vector of contagion because of the work they do. Doctors, nurses, health workers, supermarket workers, police officers, pharmacists, etc. Those have to be tested for all of them.**

Q. You saw this coming long before the rest. It is black on white in the articles published in the Tuscan press.

A. I am a professor emeritus, I am practically retired, but I understood the gravity early, very early. The Governor of Tuscany, who knew me well, contacted me, and so they began to test the doctors here, the nurses, and so on. In Lombardy they didn't even test the doctors! In the hospitals they didn't test anyone! The worst thing is that they followed the recommendations of the WHO, which said that only those with symptoms should be tested.

Q. With the masks there has also been rectification. Has the WHO failed?

A. It was disastrous, totally disastrous. Until 10 days ago, here they kept saying on television in official messages that the masks were useless, that the tests for asymptomatic people were useless. In the end, Veneto is controlling the coronavirus by not following the WHO. Now they are changing the speech and they are saying what I left written two months ago. But now they're late. It needed to be done then to stop it.

Q. How could the WHO have failed so badly?

A. We have asked ourselves that question many times these days. I think that fundamentally have failed because they are bureaucrats who have made a career within offices, but have not lived the field experience, have not been or in the

laboratories handling viruses or involved in epidemic situations in other countries. Politicians have taken advice from bureaucrats rather than experts. **Politicians are being heavily criticised, but the truth is that they have made decisions on the basis of what the technicians told them.**

Q. Has any experience you've had allowed you to understand better than your colleagues what might be happening?

A. I think I have prepared myself all my life to understand this moment. My disciple understood it even earlier. He was a great guy at the university, he has become a famous researcher in the field of malaria. He was working in London, at Imperial College, but we were lucky enough to have the University of Padua bring him back to Italy. He's been a blessing from the Veneto. Thanks to him, who is a real expert, a virologist, the governor of Veneto is stopping the epidemic.

Q. Why did they trust him more than the WHO or the central government?

A. The Governor of Veneto is from the Northern League, where they have no particular sympathy for the Italian central government. So he has done things as he wishes, in his own way... With the luck that he has found Crisanti.

Q. Assuming we have missed the opportunity to do it as it was done in Veneto, what can we do now?

A. Searching for the virus antibodies in the blood is very easy. And it would allow us to know how many people have had the infection. From there, we could make a lot of progress in epidemiological research to find out where we are. Then people with antibodies could be used to work in places like nursing homes, factories or wherever they are most needed. And thirdly, we could use the plasma of those people to cure patients. This therapy is already being used and can work as a passive vaccine: antibodies put directly into the blood.

Q. It would also let us know how many people have passed through the disease without symptoms or with mild symptoms, of course.

A. The exact figures will not be available. Antibody tests do not detect everyone who has passed without symptoms, only two thirds. In any case... At the hospital in Florence we have done it with all the health personnel and we have found that around 5% of doctors and nurses had already passed the disease without symptoms. This is in spite of the fact that it is a hospital that was not on the front line and where there have hardly been any patients with coronavirus.

Q. Many people here fantasize about the idea that half of Madrid has already passed the coronavirus.

A. In Italy something similar happens. But be careful, because I think the percentage of European population that has passed it is still not very large. **The virus still has a lot of margin, many bodies to infect, many lives at risk.**

Q. You are one of those who went into quarantine before it was compulsory.

A. I have been for more than a month now. Anyway, as professor emeritus, my activity was not very intense either. When this story began, I had already been avoiding

contact with people for some time. I had already understood what was going to happen. Think that I have 40 years of experience, of research, and I am friends with the leading experts. Anthony Fauci, who is in charge in the United States, is a good friend of mine. Listen, can I ask you a question now?

Q. Yes, of course.

A. Has there been any talk in Spain of the Atalanta-Valencia match?

Q. Yes, it has been said that it was a source of significant contagion, but especially for the people of Bergamo.

A. Is that 40,000 went from Bergamo to Milan, all together in the stadium. And of course... And that in the open air is much less dangerous, because in closed environments the virus stays in the air for a while and can be directly inhaled.

Q. Yes?

A. It's still not completely clear, but it seems that even if you are not in front of the infected person, even if you don't see him, you can get infected in closed environments.

Q. How do you imagine life in a few months?

A. Sure, sure it will not be like before. You will have to wear masks all day, you will have to avoid large gatherings, you will have to cancel all kinds of sporting events, conferences, meetings, discos, bars ... Perhaps the restaurants can reopen far away from the tables. **In short, life from now on will be much more complicated and much less beautiful.**

Q. Are you confident that a vaccine will be found?

A. To be effective, it takes at least a year. Let's see if we can find one. The normal thing is that yes, let's be optimistic, because the characteristics of the virus are not like those of HIV, for example. It does not enter the cells, but sticks to them and the antibody locates it. It may not be a lifelong vaccine, but then year-to-year protection would be sufficient, as with the flu. But you never know. And then the production will have to be gigantic: all the inhabitants of the planet will want their dose.

Q. Is it difficult from a raw material point of view to make vaccines for everyone?

A. No, not that. The material is not a problem with today's technology. Once you have isolated the virus and found the useful protein to inject, it can be produced in unlimited quantities. But there are many millions of us... We will have to start with special categories: the elderly, the sick, etc.

Q. One thing that continues to worry is that young people are also dying.

A. I think that message is distorted a little bit. In fact, it is very, very rare for young people to die. Under the age of 20, I think 10 have died in total, at least in countries where you know what's going on. In Africa we have no idea what may be happening.

Q. As an immunologist, what theory convinces you most about how age-selective the pneumonia caused by this virus is?

A. There are two theories. The first says that the tumultuous and excessive response caused by the natural immune system, a storm of macrophage cytokines that collapse the lungs... An overreaction in older patients. Two or three year old children who have a very ineffective, barely formed, immune system don't even notice it.

Q. And the second theory?

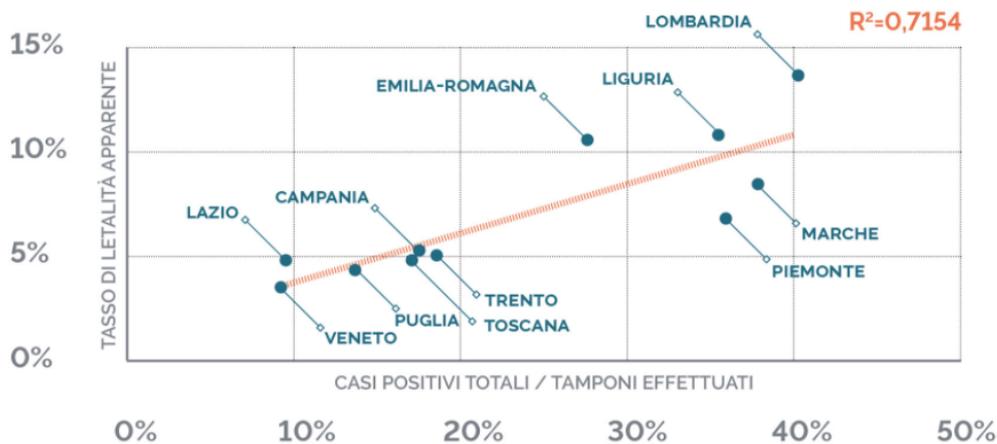
A. It is said that an elderly person has had many infections of other coronaviruses throughout his life and has accumulated such a large amount of antibodies that when he is infected with this new virus, he reacts by flooding his lungs with those antibodies... Neither theory convinces me, the truth is that I have always known antibodies as protective weapons.

Q. So? Is it still a mystery?

A. Yes, I think these hypotheses are rash. We are still in the mystery phase. This is an enormous mystery and, as I said, I have been preparing for it all my life.

### COVID-19: rapporto tra test e letalità apparente

ISPI



Dati: elaborazioni ISPI su dati Protezione Civile.

[https://www.elconfidencial.com/mundo/europa/2020-04-07/coronavirus-oms-italia-veneto-romagnani\\_2537147/](https://www.elconfidencial.com/mundo/europa/2020-04-07/coronavirus-oms-italia-veneto-romagnani_2537147/)

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