



Jacinto Convit

World  Organization



**Interview
with doctor
Marianela
Castés**



Content

- 1-** Inspiration in medicine
- 2-** Relationship with doctor Convit
- 3-** Methodology of work
- 4-** Beginnings in psychoneuroimmunology
- 5-** Work with doctor Convit
- 6-** Progress in psychoneuroimmunology
- 7-** Immuno-literacy project
- 8-** Working in pandemic
- 9-** Doctor Convit's legacy



Our team had the great opportunity to interview doctor Marianela Castés, a renowned chemist and immunologist who has devoted more than 30 years to the field of immunology



Universidad de los Andes, Venezuela

Why did you decide to study chemistry and then pursue a Masters and PhD in immunology? What are you passionate about in those fields? Who were your main mentors during your career?

Since I was a child, I have always liked science; as a child you usually have a favorite subject in school and mine was biology, so obviously that was my interest and my passion. In my third year of high school, I went to live in Europe for four years. We returned later to Venezuela and I had to make a choice.

When I arrived, I had to revalidate my high school degree. I was doubtful if I should study medicine because I loved biology, the body, organisms, etc. But the truth is that I was not interested in the cruel part of blood medicine and those things. Then, one of those significant persons appeared in my life.

This person [name not mentioned] informed us that the Faculty of Sciences of Universidad Central de Venezuela (UCV) had been founded 10 years ago and suggested that "Since Marianela likes biology and science so much, and science now as a faculty is going to have a great future, why doesn't she enroll in the Faculty of Sciences?" That kind of seemed important to my mother and me, so I enrolled in the School of Chemistry. He said that chemistry was the science of the future and that ultimately it was related to biology because the processes of the body are biochemical and that I could study chemistry; so I enrolled. I got a chemistry degree but also since my elective subjects were the compulsory ones of biology, I

studied biochemistry I, biochemistry II, laboratories microbiology and genetics. I also studied genetics in the biology syllabus, and in the end, I set a very personal curriculum, between chemistry and biology majors. I graduated, having enjoyed and loved my career; and then appeared another of those important figures in one's life that you only meet by chance, maybe having a coffee, and they give you some information that you think is valuable. That was doctor Merino, who was a professor at the School of Biology.

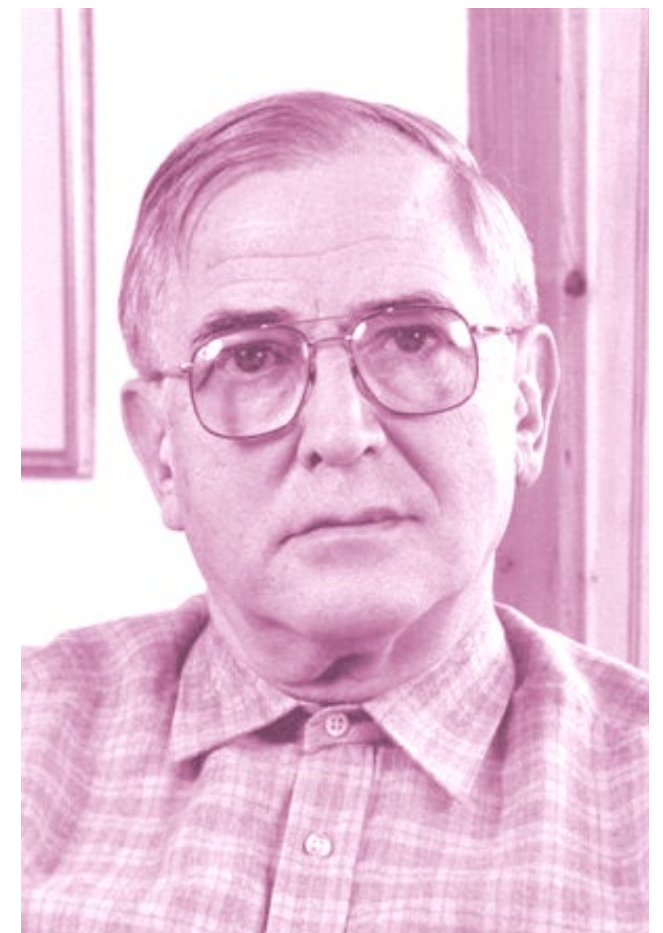


Faculty of Sciences, Universidad Central de Venezuela

I never practiced chemistry itself, inorganic chemistry, organic chemistry, etc. nor tried to find work in a chemical company, but everything was oriented towards a mixture of biology and chemistry. When I told doctor Merino I was thinking of going abroad to do a doctorate in biochemistry, which was almost natural for me, he gave me some valuable information: "Marianela, there is a new discipline that is emerging, a discipline that is going to make a difference in the world and it's immunology. It is emerging and gaining great impetus and it's very important". This was the 70's, I had already graduated as a chemist.

At the time I was an Associate Professor. "You can attend my son's (Fernando Merino) classes as a listener", he said. And continued, "There are already many biochemists here who are currently returning with their doctorates, but we do not really have any immunologists who have a doctorate in immunology. Why don't you explore that path? Immunology also has a lot to do with chemistry. In fact, there is a part of immunology called immunochemistry, so it is not so far removed. It is a fascinating discipline that is going to change the course of the way of look at medicine". Well, I heeded his advice.

After that, I worked in biochemistry at Universidad de Los Andes for 3 years and became one of the founders of the Faculty of Sciences. Since I spoke French they sent me to learn some techniques in France and in Brussels. There, I had the opportunity to meet a French researcher called Roger Munier. He told me "Whenever you want to do a doctorate, write to me and that's it". So I wrote to him and told him that I wanted to pursue a PhD in immunology, and he said "This is exactly the place for immunology". I prepared myself to enroll and obtained my PhD in immunology in Paris, France at the Cancerology and Immunogenetics Institute of the CNRS.



Doctor Roger Munier

My mentor was doctor Simone Orbach who recently turned 92 years. She was my doctoral thesis tutor but I used to say that she was my French mother. Everything I learned about immunology I learned from her. I also took the opportunity to take the deep immunology course at the Pasteur Institute. I wrote my thesis in immunology on an experimental tumor model and worked for many years in the field of tumor immunology.

*Doctor Marianela Castés
with doctor Simone Orbach*



What was it like working hand in hand with doctor Convit? What projects were you working on when you returned to Venezuela?

When I returned to Venezuela, the homecoming was not easy at that time, but finally, after bouncing around here and there, I landed at the José María Vargas School, UCV, which for me was a great experience. I am a Varguista at heart because I worked there for more than 20 years, almost 30.

The Instituto de Biomedicina was just three steps away at José María Vargas School and I had already heard about doctor Convit and knew it was an institute of excellence. At that time it was still called Instituto de Dermatología.

I went there for an interview with doctor Convit, told him everything I had done and was invited to give a seminar about that.



José María Vargas School, UCV

“One thing I always admired about doctor Convit was that he gave us something that for me was vital: freedom of research”

Doctor Convit asked me if I wanted to work on leishmaniasis, which is an extraordinary model from the immunological point of view, so I pursued my entire career at Instituto de Biomedicina, mainly in the immunology of leishmaniasis. I also explored Chagas disease from other perspectives and collaborated with colleagues, but fundamentally my main line of research was in the immunology of leishmaniasis. Doctor María Cristina Di Prisco, a friend and colleague of mine, was also returning from her postgraduate studies, and together we founded the immunopathology laboratory. Doctor Convit assigned us a laboratory unit and together we started the projects, each one in its own line of research, and we gave it the name: Laboratorio de Inmunopatología.



Fiocruz Institute, Brazil

Did you work with patients or was your work based on the basic studies of the mechanism of action of leishmaniasis?

María Cristina did, yes, because she is a physician and her focus at that time was on patients. I did the leishmaniasis research. We shared the laboratory but we each had our own different research areas. So it was a period in which one develops as a researcher, because you have already studied, you have an entire background and then you really have to put it into practice

and take on a leadership role in the sense of securing research projects, directing bachelor's and master's theses, presenting your work at international congresses and writing scientific articles. It is the time when you really contribute significantly to science, and at that time in Venezuela, all that was possible. I had research projects with the Consejo de Desarrollo Científico y Humanístico of UCV, with the Comisión Nacional de Investigación Científica y Tecnológica and with the World Health Organization (WHO), because doctor Convit made it possible. There was a time when we did first world

research there. We attended events that were held in Brazil which was also very important at that time, such as the Fiocruz Institute, and there was a leishmaniasis event that was held every year in Minas de Gerais that became the most important leishmaniasis event in the world. When the leishmaniasis vaccine came out, I conducted all the studies of cellular immunity of patients vaccinated with doctor Convit's vaccine, but that was standard procedural since I had the techniques and the laboratory. I was very fortunate to participate in that project. We enjoyed the freedom to do things, to think, to have ideas. For

example, at a given moment, since I was still linked to the José María Vargas School, I wanted to create a chair of immunology. I believed it was totally advisable and justifiable to have this chair, but it was kind of scattered. By this time it was already between 10 to 15 years that immunology, as doctor Merino presented it to me, occupied a wide scope in the field of medicine. Doctor Convit never expressed an objection; in fact, on the contrary, on the day of the inauguration of the immunology chair he was sitting on the podium. Finally it was achieved and in February 1996 we inaugurated the chair of immunology.

You created the first laboratory of psychoneuroimmunology in Venezuela, there was nothing like it in the country. Did the scientific community support your work? What were those beginnings like?

Many of my colleagues at the Instituto de Biomedicina [formerly named Instituto de Dermatología] told me that I was simply crazy because I was on the pinnacle of this splendid period. I was already considered a WHO expert in leishmaniasis, they sent me to congresses, to Liverpool if there was an event, to a very important event in Turkey and to lead one of the most important round tables. It was like being at the peak of something and then saying, "You know what, I want to work on this now". And people said, how strange!

I was introduced to psychoneuroimmunology (PNI) by doctor George Solomon, the father of PNI. It was incredible because I was in California training with doctor Carl Simon, also a pioneer of PNI, but I was also about to inaugurate the immunology chair.

"At the beginning everybody saw me as a weirdo, except doctor Convit, of course"



Instituto de Dermatología, Venezuela



Doctor George Solomon

which had been a difficult task in the United States.

He also told me about his personal experiences when at the beginning nobody believed him. Always the same story when one wants to try to change fundamental concepts there is always those in the community who resist change. That was achieved and doctor Solomon gave a talk in the auditorium of Hospital Universitario de Caracas, where there were so many people that those who manned the lights did not understand; there had never been such a packed lecture and there was hardly any standing room left. The idea of bringing doctor Solomon to Venezuela was a total and absolute success. I was already committed to undertake an approved PNI program, a project for asthmatic children in Coche Island, so we took doctor Solomon there.

As you know, there is a little boat that goes from Margarita Island to Coche Island and that day the little boat rocked more than ever and I said "Oh God, doctor Solomon is going to drown!" From then on, hand in hand with him, I joined the PNI Society of the United States and it was an incredible experience.

Hospital Universitario de Caracas, Venezuela



Doctor Solomon and I had an incredible relationship. I went into the PNI hand in hand with this master who was really an extraordinary being. He traveled to Venezuela and gave the inaugural lecture of the immunology chair. I took him to doctor Convit, they met, and then he visited the entire Instituto de Biomedicina. Doctor Solomon was impressed by the fact that PNI was being introduced in Venezuela jointly with medicine, how it should be,

In several of your interviews you mention how important doctor Convit's support was for your evolution in psychoneuroimmunology. Do you think this support was a determining factor in your career?

Doctor Convit was one of my most important mentors. When I began to want a change of course, I was very afraid of what doctor Convit was going to say, because I respected and admired him very much and did not want to annoy him. He was my teacher, and you don't want to annoy a teacher, but the more I was involved with the PNI, the more I wanted to work on it, because basically what I wanted was that he assign me a space to create a PNI laboratory. I no longer wanted to continue working on leishmaniasis, I wanted to create something new. At that time a floor was enabled downstairs at Instituto de Biomedicina, where some extra spaces were conditioned and I already had

my eye on a laboratory that they could give me. But I had to talk about it to doctor Convit, so I prepared a beautiful folder with the most scientific offprints published in The Lancet, Journal of Immunology, guaranteed against anything that was not high science and requested an appointment with him.

When we met, I told him that I was interested in a new discipline called psychoneuroimmunology, that I had brought him a folder containing all the offprints that originated PNI and that I would like to change my line of research. I continued saying that there would not be any problem with the continuity of what we were doing because I already had a student

who had done her thesis with me and who we had sent to Cambridge University in England. She had already returned with her doctorate and could continue with the work. I was in the middle of my explanation and he cut me off at a given moment, telling me, "You don't have to explain so much, I absolutely believe in all that you are saying. You are right and I have experienced the importance of the mind in the healing processes, in health, etc. during my entire medical career. You don't have to explain to me, but thank you for bringing me the information". And he gave me the lab! When I remember I still get excited! It was a decisive moment, and I thought that he was already an older man but actually was the 'youngest' of all the

researchers at the Institute and he understood perfectly well. At one point he told me, "Well doctor Castés, you are already so well known in the field of leishmaniasis that you are not afraid of being wrong" and I replied, "Oh doctor Convit, there comes a time in life when one has earned the right to be wrong" He countered, "I like that answer. I am going to give you the laboratory". I could have been wrong, I could have been unsuccessful, but my heart was already in it. Let's look back again at the freedom that doctor Convit gave us, we had to choose what we wanted to do. This freedom was to do good things for the Institute, for the university, for society, and it was one of his great successes.

*Doctor Jacinto Convit
at Instituto de
Biomedicina*



How long did you work in the psychoneuroimmunology lab? What drove you to reach so many people with your studies and research?



Doctor
Hugo Besedovsky

The immunology chair was inaugurated in 1996 and the PNI laboratory in 1997, before doctor Solomon's arrival. Doctor Convit already knew about PNI. He welcomed doctor Solomon and another researcher, Hugo Besedovsky, an Argentine who had spent his entire career in Europe and was a great researcher of immunological aspects. He also gave a lecture at the Instituto de Biomedicina.

6 Doctor Convit really gave me the freedom to include this entire discipline and supported it accordingly. At that point, I had already proved that I was a serious researcher and that now I was interested in this and wanted to introduce it. For me that was a defining moment in my career and in my relationship with doctor Convit; I already cherished, respected and admired him, but at that special moment all the respect and admiration I had for him grew.

I retired in 2002 but continued to work in the PNI laboratory for 7 years. It was a different experience because so many people were also passionate about it, acknowledged that it was a science and that it was a success as well. Then another angel appeared in my life: doctor Carlos Chalbaud Zerpa, a professor of medicine at the José María Vargas School and a member of the Academy of Medicine in Venezuela. One day he told me, "Marianela, we are going to take the PNI to the Academy of Medicine". And all I said was: What? I was astonished; this was the real deal. And so, the Academy of Medicine invited me to deliver a conference on PNI, which I prepared based on pure science. The scholars and doctors in the Academy are very special people and I learned to love, appreciate and respect

them. They were there for a reason; they had earned their place there, not only because they are good doctors but because they are upright persons with a great knowledge of medicine as well as history, geography, art and culture. They were not fearful of new or different concepts than those that already existed if these were presented in the right way.

Doctor Carlos Chalbaud Zerpa





MIA immuno-literacy team

You are currently spreading PNI information not only at a scientific and medical level, but to the whole world. Can you tell us a little bit about your current immuno-literacy project?

With PNI I wanted to reach out to more people even though it was born in the exclusive confines of the university, of science and of the medical academy, but at a certain point I wanted it to transcend that environment, so I created the association Creando Salud outside the university. We set up a psychosocial program for high-risk people, mainly cancer patients. That program was offered in Venezuela for more

than 23 years, which was the time we had spent preparing that intensive, full-immersion course. We took the patients with their support people to a place staffed with psychologists, immunologists, etc.

It was mainly directed at people with cancer, but later we also incorporated individuals with autoimmune diseases, severe depression, HIV, and gave them the necessary psychosocial support to address the fact of having a disease, from the patient's point of view.

Now all the scientific tools exist that demonstrate, for example, that PNI or psychosocial support is the fourth tool in the treatment of cancer. It is an extremely stressful situation for people who have been diagnosed with cancer, who are first confronted with the diagnosis of death, whose entire family life is thrown out of balance and disarranged, who feel that they are causing pain to their family, their economy and work.

You can't just give them chemotherapy and radiotherapy, you have to address the whole emotional aspect that these persons are going through. That is exactly what we did and it was a significant experience we shared with everyone, which we offered it four times a year in some cases.

In the end, in Venezuela it was almost impossible to continue with the support program, we could not find suitable places to hold the courses and we had to suspend them. I held on to the idea of continuing to expand the

program, as many people were forced to migrate. My eldest daughter, who is a medical doctor working for the United Nations, was mugged one day in Venezuela after which she suffered post-traumatic stress disorder. Ten months later, unfortunately my daughter was the perfect case of PNI. She was diagnosed with breast cancer exactly ten months after this stressful event. Her personality had completely changed as well as her emotional state of mind, which was affected by very severe post-traumatic stress. She had

very young children at that moment, imagine if they had killed her that day she was attacked.

Fortunately, her breast cancer was discovered at a very early stage, because, among other signs, I was very aware that something like that could happen. With the help of her medical doctors, her treatments, and her great strength, she quickly understood that she had to be the protagonist of her healing process and of PNI; and obviously she had her mother, a psychoneuroimmunologist, by her side. It has been almost seven years and she is doing well. However, we realized that Venezuela was not the ideal place for the upcoming healing process, for a full recovery, because she was going to continue to be subjected to the same stressful events that had caused her illness. Since she worked at the United Nations, she applied for an international position and we have been in Panama for the last six years.



Doctor Marianela Castés

PNI really became my life's mission. I had to face a migration that as you know, is not easy. You leave your country not because you want to but because you are forced by circumstances whatever they may be. I arrived in Panama where nobody knew me, but it didn't matter much. Actually it was better because at one point things became so intense back in Venezuela that I enjoyed a few months of rest and tranquility. But obviously I could not stay still, so I started to think: what can I do to make this reach more people.

Thanks to PNI I understood that I had a mission to fulfill and that I could contribute to the potential of people through PNI because I had seen and proved that it worked, so I gave workshops. In Venezuela I gave one every month and people began to express how important those workshops had been in their lives and began to tell their stories. I told myself that I had to continue with this and technology allowed me to do it here [in Panama].

"Now all the scientific tools exist that demonstrate, for example, that PNI or psychosocial support is the fourth tool in the treatment of cancer"

Technology, in this important moment of humanity, allows me to take this knowledge to other levels. I spent 3 or 4 years setting up a website, which probably would have taken a millennial a year, but that was the time it took me.

At that time in Spain, the EDAF bookstore wanted to make an update and print my book there. That was also one of my dreams: to pass one day by a bookstore and see one of my books there. I love literature but

I do not write well at all; but writing the PNI book was something else and Spain invited me to prepare that book. At that time I was updating my second book published in Spain called *Inmunoalfabetízate y toma el control de tu salud* (Become immune-literate and take control of your health), a much expanded and updated version of the first. It includes epigenetics and neurosciences, in short, a much more robust book. Spain invited me at that

time to a Madrid book fair for a book signing, which is another dream that I had not even dared to dream, but life gave it to me without the need to dream it. I have just come back from Spain and the book is now in its third edition. Paradoxically, that book came out during the pandemic and the website came out in November 2019. I don't really like clichés, but "God's timing is perfect". The book and the website were ready for the pandemic.



Book: Become immune-literate and take control of your health

Madrid, Spain



You currently enjoy extensive coverage and your knowledge is helping more and more people. How has the process unfolded during the pandemic?

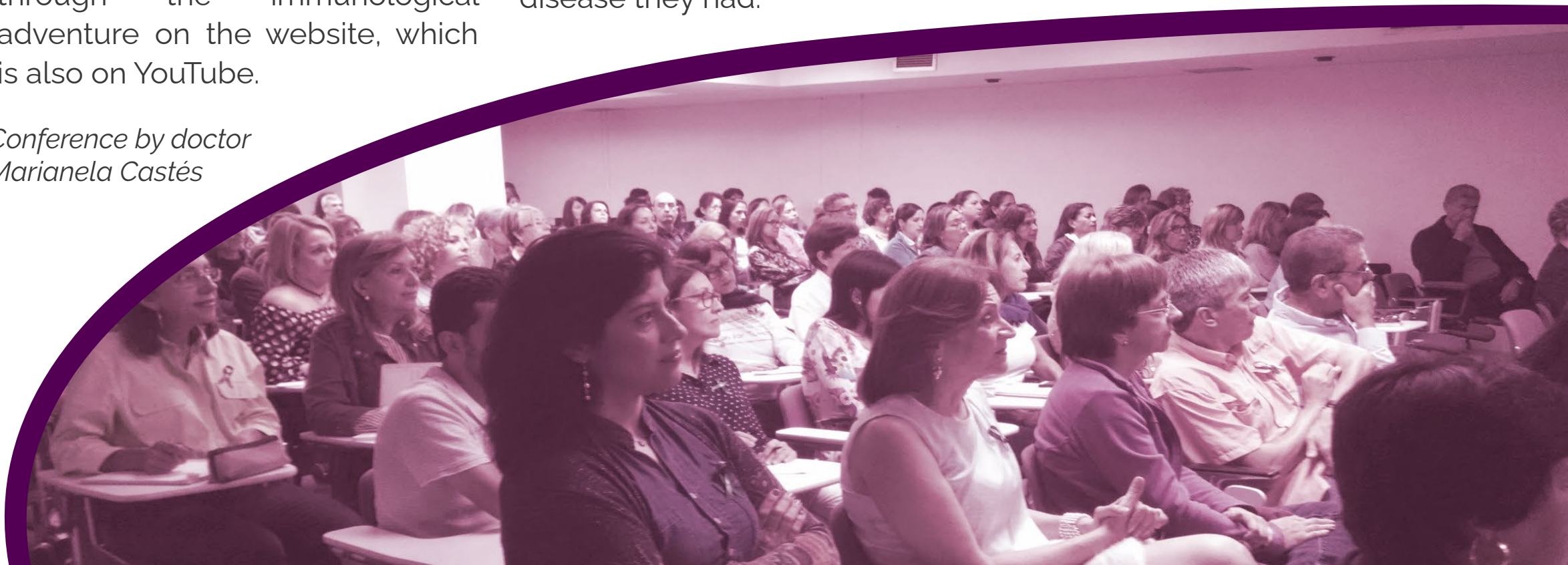
The first course began on January 21, 2020 and the people who took it had completed it when the WHO was about to declare the pandemic, but the persons who enrolled in the second course found themselves in the middle of the pandemic. You can't imagine how hard I have worked this past year. When the pandemic appeared, I told myself: this is the realm of PNI because it affects every mental and psychological aspect of people. The population is afraid, they're in a panic; their lives have been altered; they feel vulnerable, insecure; every aspect of their everyday lives —work, social relations, school and college— has been altered. This was definitely the territory of PNI, an issue I raised during the first interview with Cesar Miguel

Rondon [renown Venezuelan journalist] almost a week after the pandemic began and from then on, I tried to encourage people to deal with it through webinars, live radio and TV shows, and other information channels. It was intense, but I think we helped people somewhat by offering free guided imagination courses through the immunological adventure on the website, which is also on YouTube.

*Conference by doctor
Marianela Castés*

I created one guided imagination course against Covid-19 in April, 2020, which has been used by more than 20,000 people, especially in Venezuela. People highly valued both the basic and advanced courses and gave amazing testimonies. Touching people's lives is a privilege and a blessing in my life that I am grateful for. People say they participated in the course at first in despair, that life was dark for them, that they didn't know the potential they had, and that it was extraordinary that upon discovering their immune system, they realized they were the directors of it regardless of any disease they had.

This is now my moment, here I am and this is what I'm doing. As for the theme of the Covid-19 vaccine, it has been my task as part of immuno-literacy, to talk about vaccines by providing truthful and scientific information to make sure people understand that what one is saying is based on science. The PNI has never been alternative medicine; we follow the treatments with whatever there is, and if there is the possibility of a vaccine that is proving to be effective to avoid serious disease, hospitalization and death, we must use it, just like the other options.



Which virtues of doctor Jacinto Convit can you single out? What do you think are his greatest achievements?



Doctor Convit was seen by people as a distant and cold person, perhaps because of his Catalan origin or because sometimes people are introverted too, so he seemed distant and cold, but I did not see him that way. Of course, when one went to talk to him about a subject, one talked to him and that was it, there was no room to talk about other things, such as personal issues. However, I had a very personal experience one of the many years that I worked at the Instituto de Biomedicina.

It was an extremely powerful personal experience, which I have told you about, and ten months later it triggered a very stressful event that I endured with a lot of bitterness, suffering, sadness, etc. I had fibroids in my uterus that ultimately led to surgery, and that's when I really became familiar with PNI. While I was in the clinic, I told myself: "These fibroids were not here a year ago; I was perfectly well. How did these three fibroids grow precisely in the year that I suffered so much? Impossible, there must be a connection".

It became very clear to me that the three fibroids were the result of my suffering, so when I left the clinic I began to investigate as a good scientist what could explain what had happened, and that is how I discovered PNI. It was a personal experience.

During that stressful event —and of course the people at the Institute knew what I was going through— I decided to go and tell doctor Convit about it personally. I did not want him to know by other means because I knew he was going to find out anyway, and I preferred to tell him myself. I told him what I was going through and that I was probably going to be a little disoriented; that I was experiencing what I was experiencing. I remember that it made a great impression on me that doctor Convit stood up from his chair and hugged me. Whenever I remember that it makes me want to cry. He did not say much, he just stood up and hugged me, and said, "Take all the time you need, I am sorry for what is happening to you".

I told myself: "This person is not cold and distant, he looks cold and distant but he is not like that". It was a personal experience with him that surpasses any of the other events that I experienced with doctor Convit and I have never told anyone before.

Doctor Convit has undoubtedly helped me to live the third act of my life in a better way, because nobody knew about this and neither he nor I mentioned it, but there came a moment when he wanted to set up several laboratories in the Instituto de Biomedicina, capable of producing monoclonal antibodies. I remember he gathered his small group together to tell us about the project. I don't know exactly how old he was then but evidently he was more than 80 years old. I admired his spirit telling us about the project: "We are going to do this in the first stage and this in the second stage and probably in three or four years, this should be done..." and I thought, "Look at doctor Convit's

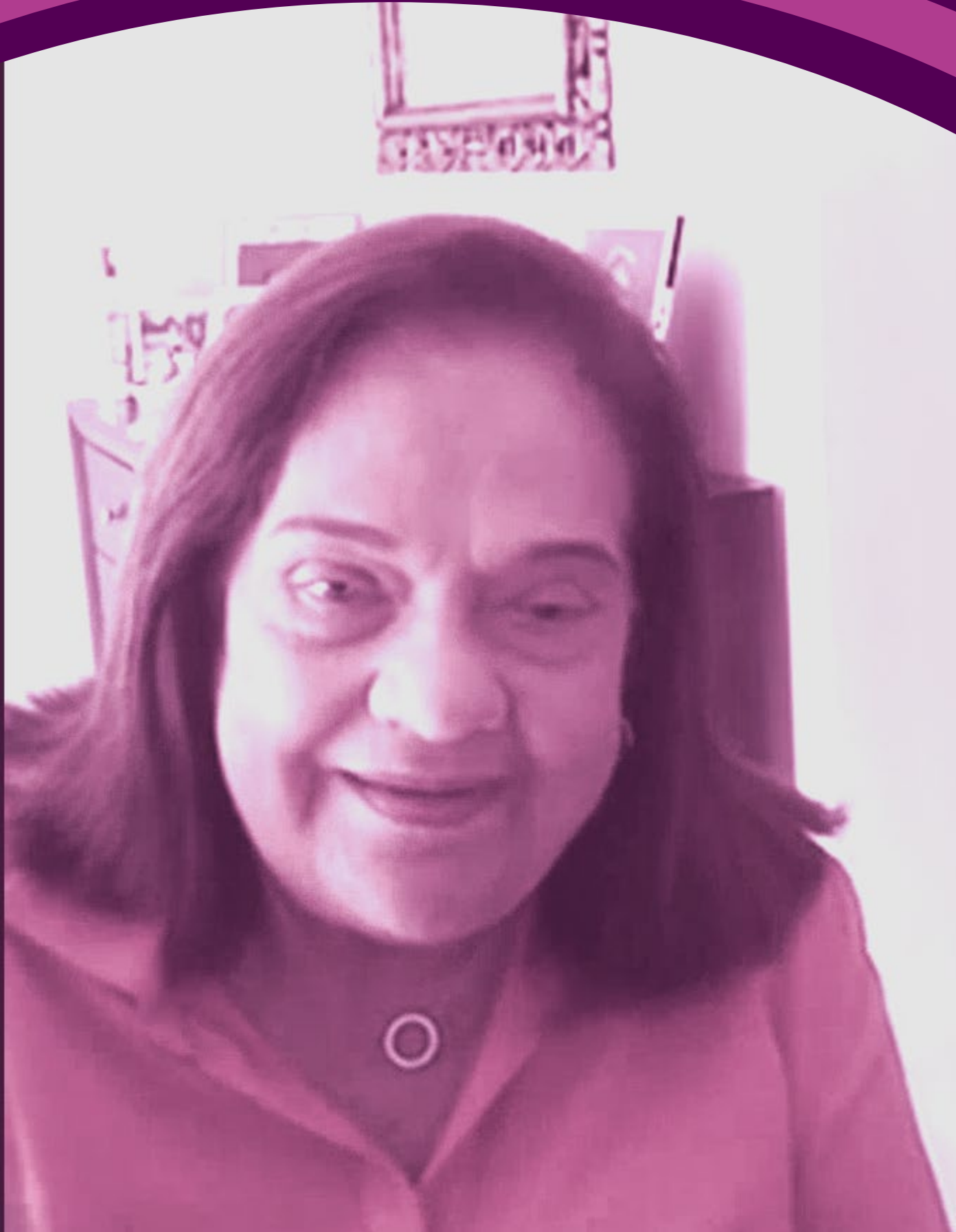


Students at the International course in leprosy, Caracas, Venezuela

"I believe doctor Convit was a very special person who left a mark in the world with his work"

spirited attitude, at his age he's probably not going to live to see this". I was ashamed to have those thoughts but then I said to myself: "Look how he talks with such spirit"; it was pure PNI because today PNI has come to demonstrate exactly that. What you need in life are objectives, new goals, and challenges, and he set the example. At that time I didn't know much about PNI but I was impressed to hear him talk about the project with so much passion, and thought that maybe he was not going to see it because he was 80 years old, but of course he saw it once and again. That left a deep imprint on my mind and decided that I want to be like him when I reach that age. I want to have that passion and spirit.

I believe doctor Convit was a very special person who left a mark in the world with his work. One of his main achievements was to remove the stigma of a disease like leprosy, which was so vilified. Another was the creation of the Instituto de Biomedicina, where so many researchers were trained and where we were also able to make our small contributions. This was an incredible trained generation that produced extraordinary people who are leaving their mark in the world, another proof of doctor Convit's generosity, of the freedom and also respect for the research of others, allowing people to grow in their own experiences and supporting them.



**Online interview with
doctor Marianela
Castés conducted by
Jeismar Carballo, PhD.,
Project Coordinator at
Jacinto Convit World
Organization, Inc.**

*(From left to right, Marianela Castés
and Jeismar Carballo. July 2021)*



Official translation by

*Marie-José Alsina
Certified Public Translator
English/Spanish*

Design by

*Gabriel Méndez
Marketing Manager
Jacinto Convit World
Organization, Inc.*