



Dionicia Gamboa

Interview by
Claudia Cisneros*

I wouldn't change my career for the world, despite all the difficulties and obstacles it involves, because of the satisfaction it's given me up to now

Dr. Gamboa with members of the teams she leads, at her university laboratory



Dionicia Gamboa surrounded by her colleagues and thesis director, Dr. Jean-Claude Dujardin (second from left) during the preparation of her doctoral dissertation in Belgium. Credit: Dionicia Gamboa.

*A CNN International journalist, she has worked for channels affiliated to Tele-mundo and Fox. In Peru, she contributed to Panorama, América Televisión, Primera Edición and 24 horas. She is currently a producer for Japan's Fuji TV and writes for La República newspaper.



Dr. Gamboa with the people who inspired her career: her parents and sister. Photo: Dionicia Gamboa.

Malaria is a disease that affects South America, particularly the Peruvian jungle region, and often means that entire families have to stop working when they contract the disease. Instead of undertaking the seven-day course of treatment, many only get as far as three; as soon as they start to feel better they want to return to work, since they have many children to support. Malaria, then, is more than just a parasite and a vector: it is a social problem. What I, Dionicia Gamboa, do is research the disease, thanks to a scholarship awarded by the Belgian Technical Cooperation through the Antwerp Institute of Tropical Medicine and the Alexander von Humboldt Institute of Tropical Medicine at the Cayetano Heredia University, Peru (UPCH).

From a very young age I wanted to be a doctor or a nurse; I knew I was captivated by science. I enjoyed healing chickens and guinea pigs. Perhaps it was the chemistry or maths classes at school, or the field trips I loved going on, or the beautiful books on animals and plants my father brought back for me from his many trips; the point is I decided to study biology. My father had barely been able to finish primary school and my mother was a primary and secondary school teacher, so I was the first real professional in the family.

Each step in my career has been difficult. When I finished school and had to start university, my only choice in Chiclayo was the public university, but in the 90s there was a problem with terrorism and university activities were often suspended. You would study for two or three months and then there would be strikes. Back then I wanted to study at the best university for medicine: the Cayetano Heredia University in Lima. The first time I applied I didn't get in, but I prepared better

and was accepted the second time round. I ended up leaning towards research in a country with significant obstacles to a career in science and in a male-dominated field. I did my master's degree in biochemistry in my native Peru, and a doctorate in cellular and molecular biology in Antwerp, Belgium, where I specialized in leishmaniasis research.

When I returned to Peru, I decided to undertake research on malaria. But doing research here is far from easy. Switching from the laboratory to the field changes your perspective: from working with molecules in a laboratory, you come to understand that a disease is not only the sample you work with and the experiments you do, but that there's a backstory, a person, a family and their problems. I began designing projects, the university hired me as a teacher, and, thanks to foreign sources of funding, the Faculty of Science at UPCH gave me a laboratory with just two tables. I worked hard to equip the lab. In the beginning we were a team of just 4 or 5; now there are 20 of us in Lima and 30 in Iquitos. Our multidisciplinary group now has various publications in indexed journals.

Without timely treatment, a person infected with the malaria strain can die. Yet some patients are asymptomatic and we need certain tools to identify them. The aim of my laboratory is to develop diagnostic methods that are sensitive enough to detect low parasitemias but simple enough to use in the field. This would save a lot of lives.

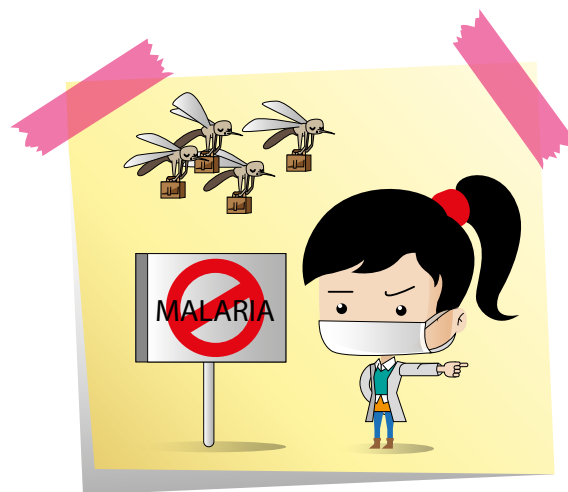
As Principal Investigator, I interact with other national and foreign researchers, and the majority of them are men. Although being a woman in science has changed somewhat, there is still the assumption that we women are assistants or secretaries. I have dealt with some male doctors who think they're the boss. But you have to let them know you're at the same level, that your opinions, suggestions and ideas count. Fortunately, some doctors now call me to ask what they should do in certain cases.

I want young women who are thinking of working in science to understand that being a researcher in Peru, pursuing a scientific career, isn't at all easy, whether you're a man or a woman. In fact a career in research isn't even recognized by the state. I have to complete my teaching hours and write projects to cover the time I devote to research; it's difficult, but not impossible. But I wouldn't change my career for the world, despite all the difficulties and obstacles it involves, because of the satisfaction it's given me up to now. I want to carry on researching and contributing to the well-being of my country. How far do I want to go with that? As far as the Nobel Prize.



Dionicia received recognition as one of the world's most important young scientists from the Elsevier Foundation, through The World Academy of Sciences in 2013. Photo: Elsevier Foundation.

Dionicia won the "Women Scientists in Life Sciences" L'Oréal Prize with her doctoral dissertation. *Glamour* magazine in Spanish chose her as one of the continent's outstanding young female researchers. In 2013, she won the "Early Career Women Scientists" prize for the whole Latin American region, promoted by The World Academy of Sciences and the Elsevier Foundation.



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