

ANNEX III

DR. ANA MARÍA GÓMEZ - PERSONAL INTERVIEW

1. Dr. Gómez, why did you study Pharmacy?

I wanted to contribute to people's health. I did not feel like being in first row like medical doctors, but instead I wanted to help discovering new drugs.

2. Your postdoctoral research was done at Maryland Biotechnology Institute at Baltimore, USA. Do you recommend scientific stays abroad?

I think it is really a must for researchers. Science does not have nationality and working in a different system help to open the mind to different, and sometimes more efficacious, ways of working in science. Moreover, going to an English-speaking country help to improve our language skills, what is a handicap in Spain, because it is the scientific language.

3. What suggestions would you give to beginning scientists?

I will say that it is a vocational job. So if you really want to work in science, work rigorously and hard, and take all opportunities to learn. It is one of the most amazing jobs so we can get paid for doing what we enjoy.

4. As a researcher, you try to achieve a better understanding of the heart failure syndrome, the major cause of morbidity and mortality in developed countries. In which main project areas are you working nowadays?

I am working mainly in two different aspects of heart failure and sudden cardiac death. One is to better understand the signals that initiate heart maladaptation to stress, which usually starts with cardiac hypertrophy but decompensates towards heart failure. And the second is the mechanisms of sudden cardiac death depending on intracellular calcium deregulation. As a model we have mice expressing a mutation found in a family with 3 cases of infant or juvenile sudden death.

5. Do you consider your work analyzing Ca²⁺ handling involvement in the genesis of heart failure and arrhythmia may help to find new therapeutic targets?

Only if we know the mechanisms of disease we can design new therapies. So far there is no cure for these disease, what show that we are not completely understood the mechanisms of the pathology. I hope that by identification of new targets, maybe intracellular Ca²⁺ handling, we may improve human health.

6. Cardiovascular disease is estimated to cost the EU economy almost EUR 110 million a year, and they are also one of the leading causes of long term sickness and loss to the labour market. Despite this overall burden, research into cardiovascular disease is fragmented and few countries have specific programs dedicated to this field of research. How do you think this situation can change?

It is very difficult, but we need to keep the hope. Cardiovascular disease is the leading cause of death in the world and heart failure when diagnosed has worse prognostic than several cancers.

Yet the public opinion does not consider it as a big problem. So far cardiac Research has not been adequately supported in Spain. For example, when I finished my Ph.D., end of 1994, I was checking for CSIC open job positions, and only about 10 years later there was ONE position for cardiovascular area. I do not know later, but one position in 10 years is not much. At that time I already had a permanent position in France since about 7 years. It is true that there was an effort by creating the national center for cardiovascular research in Madrid, although it still need to be reinforced in the cardiac basic research. I hope that Spain will promote cardiac research by opening research positions in this area. Most other countries that I know support basic cardiac research.

7. You currently work as Director of Research at Inserm, in close collaboration with with other scientists across the world using complementary techniques to analyze the same problems. Is direct relationship among professionals from different backgrounds simple, or do they speak different languages?

Science does not have frontiers. We all speak English, only the systems are different among countries. The way Science is administered, with more or less administrative burden is different among countries. But Science is the same. That is why it is very important to travel and work for some time in other laboratories of other country, so we can understand each other, not only from the language point of view, but also in the way of working.

8. Recruiting and retaining females in science and engineering positions continues to challenge many European Higher Education Institutions. How could be have a great work-life balance?

I think the work-life balance needs to be attained in men and women equally. Thinking that combining work and personal life may be an issue only for a woman, is a sign of discrimination. It is not a challenge for the institutions to find females because there are many good female professionals. In fact, there are more females with Ph.D. in biomedical sciences. So institutions should not have any problem finding good professionals of either sex, because there are enough women candidates for positions. They just need to give the same opportunities to women than to men.

9. Regarding the research mobility, what measures may encourage expatriate scientists to move back to Europe?

Permanent jobs and good level of funding.

10. In addition to sustained funding, what are the main research challenges in coming years?

Maybe one challenge is to continue encouraging basic science. For this, the importance of science and knowledge generation should get to the general population. We are changing to a view of science like business. Institutions ask us to be productive, doing patents and finding something that can be sold. Main discoveries have been made searching for knowledge and not for money. Other threat is that the system encourages competition forgetting that we are all working for the same cause. The fact that we are constantly evaluated and compete for very limited funding does not help. Under these conditions, scientists avoid risky projects that could lead to more important discoveries, but have the risk of not having publications for some time.