



Mayana Zatz  
Brazil

“ ...Women are more intuitive,  
which [...] is an important  
characteristic for science ”

Interview by Lucia Mendonça Previato\*



Dr. Mayana Zatz, after receiving the 2008 Mexico Science Prize for Science and Technology

Mayana Zatz was born in Israel and is a naturalized Brazilian, having lived in Brazil since the age of 7. Full Professor of Genetics, Director of the Human Genome Research Center, Institute of Biosciences, University of São Paulo.

#### Study area

Human and Medical Genetics. Neuromuscular disorders and stem cells - with the aim of

developing cell therapy and as a tool to investigate gene expression that causes genetic diseases.

#### Results and achievements in science of which you are most proud:

Identification of new genes responsible for neuromuscular disorders, and more recently, results of pre-clinical research with stem cells in animal models

## Honors and Prizes received

- Dr. Honoris Causa, University National Autonomous of Mexico (UNAM), Mexico, 2011
- G. Conte Award for social work in support of dystrophy, Mediterranean Society of Biology, Italy, 2011
- Mexico Prize of Science and Technology, 2008
- Bertha Lutz Prize, Federal Senate, March 11, 2008
- Scopus Award, Editora Elsevier-Capes for Scientific Production, 2007
- Order of Ipiranga, Grand Cross Award, Government of the State of São Paulo, 2006
- “Making a Difference” Award, Category: Science and Life, O GLOBO Newspaper, 2006
- Hospital Award 2005, Personality of the Year in the Area of Health
- TWAS (The Academy of Sciences for the Developing World) Prize in Basic Medical Sciences, 2004
- UNESCO-L'OREAL Award “Women in Science”, Best women scientist in Latin America in 2001
- Medal of Scientific and Technological Merit from the State of São Paulo (2000) for participation in the XYLELLA GENOME Project.
- Grand Cross of the National Order of Scientific Merit for contributions in the areas of science and technology (July 21st, 2000) Brazil



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- Highly Cited Brazilian Articles of the 1990s, ISI WEB OF SCIENCE, Prize offered to the authors of the 27 most cited Brazilian papers in the decade of 1990, March 2000
- Muscular Dystrophy Association Award (1986) for the paper: Growth hormone deficiency and Duchenne muscular dystrophy

## What made you decide to enter a Scientific, Engineering or Mathematics career?

Since I was a child I have liked science. As a young girl, I wanted to become a doctor in order to “heal” sick people. But later I fell in love with genetics and decided that that was what I wanted to study. I never imagined at the time, that this would be the “science of the future”.



Mayana and her children: "Her best work is in genetic engineering."

### Why is it important for a woman to be in the world of science?

I believe women can offer important contributions to science. They are more intuitive, which I personally believe to be a characteristic important for science. I also think women have a different way of thinking than men, and therefore the two sexes complement each other. In my opinion, dealing with a specific problem from different angles can be very constructive.

### Who or what is your inspiration to do science?

Since I was a child I loved to read biographies of famous scientists such as Pasteur or Madame Curie. But today, the scientist I admire the most in the whole world is the Italian Rita Levy Montalcini, the 1986 Nobel Prize winner in Medicine for her discovery of the nerve growth factor. Rita died December 30, 2012 at the age of 103.

### Which were the main barriers you experienced, and how did you overcome them?

I have never felt discriminated in Brazil for being a woman in a scientific career, in contrast with the United States, where I did my post-doctorate. There, I had to work very hard to show that even though I was a woman and a South American, I could also think. In Brazil, currently the main barriers are the difficulties in importing materials or research animals, and the excess of bureaucracy. We lose a lot of time when starting up a research project, or putting an idea into practice. This is quite a drawback in such a competitive world.

### Do you have a family?

I only have an older sister, who has two daughters and three grandchildren. My parents, who have both passed away, were very special. I owe A LOT to them. Besides encouraging us

to study hard, my parents had extremely strict ethical principles and were a great example to me. My father taught me to never be envious and to fight for what I wanted and what I believed in. I have a son and a daughter, both

adults and wonderful people. They are my best work of “genetic engineering”. I was married for 30 years, but slowly our interests drew apart and I ended up getting a divorce. Presently my ex-husband and I are close friends.

Mayana with her student at the Center for Human Genome Research



Her most significant achievements and results are the identification of new genes responsible for neuromuscular disorders, and more recently, results of pre-clinical research with stem cells in animal models





Mayana with her students in the laboratory

### What do you like to do in your free time?

Reading (although presently I read scientific papers almost exclusively), going to the movies, to the theatre, to restaurants with my children and friends, traveling and getting to know new places. I also like to jog every morning before I go to work. Besides making me feel well physically, it is during these moments that I think the best. I have solved several problems during my morning jog.

### What would be your advice to other scientific women?

To fight for what they believe, to question, not to be afraid of getting a no as an answer, not

to give up on an idea before testing it. And not to relinquish motherhood for the sake of a scientific career. To be a mother is a fabulous experience and even though for a few years life will be more difficult due to maternity, it is possible to reconcile a career with being a mother. ■

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