THE WORLD NEEDS SCIENCE AND SCIENCE NEEDS WOMEN

Celebrating the 2015 European Laureate of the "L'Oréal-UNESCO For Women In Science" awards, Professor Dame Carol Robinson.



Professor Dame Carol Robinson Professor of Chemistry, University of Oxford

Over the past decade, the percentage of women among scientific researchers has increased by 12% but gender parity is far from being reached: women account for only 30% of the world's researchers. The current situation indicates that well into the third millennium, a discrepancy exists between what we believe is the right gender balance and what we are prepared do about changing it.

All photos L'Oréal-UNESCO For Women In Science 2015 I like to think that the barriers are reducing all the time but unfortunately evidence does not support this. There are still relatively few women who remain in science, despite a good take up at the undergraduate level. More programmes exist to address this but there is a lot more we can do to reach gender equality in science.

Science is still perceived as a man's world and it really should not be. A career in science is both rewarding and exciting. Women should not be put off by perceptions. One of the main issues is the lack of role models with whom women can identify. When I was young there were very few – Dorothy Hodgkin or Marie Curie. Nowadays, we are seeing more women and programmes like the L'Oréal-UNESCO For Women In Science Awards are helping to put women scientists on the world

stage and to celebrate their successes. I was delighted when I learnt that I was to receive the award as the European Laureate for 2015. It is a great honour and I hope it has a very positive effect on young women considering a career in science. I hope that it gives young women something to aspire to.

I also would like to think that my unusual career path might inspire others into the world of science. I knew that when I left school I wanted to stay in

... senior women can make a difference ...

science so I became a technician at Pfizer, aged 16, working on a mass spectrometer. I was very fortunate that one of my colleagues told me I should have gone to university and that it wasn't too late. I didn't believe him, but he encouraged me to study part-time for a degree while continuing my 'day job' at Pfizer. When I finished my degree I was delighted to be accepted to do a PhD at Cambridge University. This was beyond my wildest dreams.

Finishing my PhD I then took another unconventional path by having an 8-year career break to begin raising my children. I loved this time and didn't return to science until my late thirties, initially at quite a low level. I was grateful for the chance to prove myself. By my mid-forties I was appointed as a Research

Professor at the University of Oxford. I think in the mid 1990s, when I obtained my first grant, I felt I had started my career in science.

Nowadays the grant funding situation is much tougher. Student numbers have increased dramatically in the last 10 years which brings its own





From left to right: Prof. Dame Carol Robinson – University of Oxford, UNITED KINGDOM; Prof. Thaisa Storchi Bergmann – Federal University of Rio Grande Do Sul, Porto Alegre BRASIL; Irina Bokova – Director General UNESCO; Jean-Paul Agon – Chairman & Chief Executive Office, L'ORÉAL; Prof. Molly S. Shoichet – University of Toronto, CANADA; Prof. Rajaâ Cherkaoui El Moursli - Mohammed V- Agdal University, Rabat, MOROCCO; Prof. Yi Xie – University of Science & Technology of China, Hefei, CHINA.

pressures in terms of space and resources. Similarly the number of academics has increased and in a tougher funding climate I have seen this cause some young scientists to leave research. If I were the Minister for Universities and Science, I would try to ensure that universities were properly funded. There are moves to put research into institutes and to leave universities to focus on teaching – I think this would be a big mistake. Many of the great innovations in science were discovered in universities.

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In my career I benefited enormously from good mentoring and I feel this is an important part of getting women to stay, and progress, in science. I would never have applied for my Royal Society Chair without a lot of persuasion. Encouraging women to apply for senior academic positions and sitting on electoral boards is one way in which senior women can make a difference. The work-life balance also plays a major role. The long hours culture is in conflict with family life, and life in general and in my opinion this is the biggest perceived obstacle for women entering science and academia but I am a strong advocate of how flexible a career in science can be. Commitment is the important thing. Balancing family and career was my biggest challenge. Initially, I resolved this by giving up my scientific career for eight years; later I managed to find the right balance between the two things that mattered most to me.

Finally I would like to stress the positives of careers in research: to work on something that becomes your hobby, flexible hours, international friendships, mentoring students and postdoctoral researchers - the list is long. Don't think of it as being stuck in the lab all day. The opportunities to present your research, to interact at conferences and to carry out collaborations across the world are tremendously exciting. It is also very rewarding working with bright young students, watching them develop and take up their own careers. It really is a great career choice.

The L'Oréal-UNESCO For Women In Science International Programme was founded seventeen years ago by L'Oréal and UNESCO on the premise that 'the world needs science and science needs women'. The awards programme is designed to promote and highlight the critical importance of ensuring greater participation of women in science, by awarding promising female scientists with fellowships to help them further their research. There are three distinct schemes:

- 1.0 The International Laureate Programme: The founding awards provide five leading female scientists, one from each continent, every year with a prestigious laureate of €100,000 in recognition of their ground-breaking achievements and contributions to scientific progress. These women are at the cutting edge of their research fields. The international structure of the programme ensures that the laureates are distributed among women who are working under a wide variety of conditions. 87 laureates have been given since this programme's creation.
- 2.0 The International Fellowships Rising Talents. These fellowships help young women scientists from around the world take up research positions in other countries, allowing them to pursue their research in some of the world's most prestigious laboratories. There are 15 fellowships given out each year to support 'the faces of science for tomorrow'.
- 3.0 The National Fellowships, such as the UK & Ireland programme, are run in over 46 countries around the world. Each National Fellowship helps women scientists at a critical point in their career to continue to pursue their research with flexible financial aid.

Since its creation in1998 the L'Oréal-UNESCO For Women in Science programme has supported 2,250 women in 110 countries