

Seeing stars

BY TRUDY SIMPSON

For Dr. Maggie Aderin, science is life-and life is fun.

In just a few moments in her company, the bubbly woman can help you fall in love with science. Working in a profession typically seen as the stomping ground of pasty-faced, socially handicapped geeks trapped in a laboratory; Dr. Aderin is nothing like that stereotype and is anxious to bridge the gap between scientists and ordinary folk.

"Science is for everyone, and even if you don't want to be a rocket scientist, it is good to have an awareness of science so we can have an understanding of all the things that affect our lives today like climate change and the MMR vaccine," she told The Voice last week.

Dismissed

Not bad for a dyslexic little girl who was dismissed by some teachers when as a six-year-old, she declared she was going to study science. "I was not considered very bright at all because I had dyslexia and when I first told my teachers, they sort of looked at me and shook their heads and said I should consider something else. But I received encouragement at home. My father always said if you work hard, you can achieve so much so I pushed myself. Although I suffered from dyslexia, I was quite logical and I really loved science because I loved being hands on. And when people realised I was good at science, I got lots of extra tuition and extra encouragement which helped with the dyslexia," she said. That encouragement meant that she steadily improved and eventually secured a place at Imperial College, London, where in her first year, she was one of only two black people and one of 10 women in her class of 200.

"That didn't seem daunting. [Being black], can make you stand out but I think you can use it to your advantage. There were not many barriers. They were pleased I was interested in Science."

Missions

Years later, the little girl who loved reading about the celestial stars is a force to be reckoned with.

Armed with her laptop and photographs of 'missions' she has been on with the European Space Agency (ESA) and US-based National Aeronautics and Space Administration (NASA), Dr. Aderin speaks with inspirational passion.

Dr. Aderin, who holds a Bachelors degree in Physics and a PhD in Mechanical Engineering, has built telescopes, has helped create instruments to test missile warning systems and detect landmines as well as satellites that monitor climate change. For her PhD project, for example, she developed an instrument for the oil industry, which is still used today to test engine oils and additives. She has also created scientific instrumentation, including hand-held land mine detectors for the Ministry of Defence and spent six years at University College London leading a team of 17 scientists making a multi-million pound spectrograph (instrument to study deep space) for the Gemini observatory in Chile. Dr. Aderin also continues to work as a senior project manager for Astrium Limited in Portsmouth, has a Science and Society fellowship from the Science and Technology Facilities Council (STFC) and is completing a climate monitoring system for a ESA satellite due for launch in 2008. She is also working on a subsystem for the James Webb Space Telescope (JWST), which is the replacement for the famous Hubble Space Telescope.

"As a scientist, I travel all over the world," she said.

Good life

"Scientists have a good life. But kids do not know that and this is so sad. They think you are stuck in a lab somewhere but that is not true. With this job, I am sometimes more like Lara Croft (video game heroine from Tomb Raider) and James Bond, hanging out the back of an aircraft," she said, laughing.

"There was fear that not enough young people are going into science so I decided to do something. I want them to know that while the work is hard, the pay is good and it can be fun," she said. Dr. Aderin talks with children through a programme run by her company, Science Innovation Limited (SIL), which has the primary goal of getting the public to engage with science, particularly girls and ethnic minorities.

Taste of space

The 'Tours of the Universe' show gives school children a taste of space while on a virtual 'journey' from Earth to deep space.

Now, Dr. Aderin is bringing her passion for Science to Television, participating in two of the BBC's upcoming six part science series - The Cosmos: A Beginner's Guide. In the programmes, starting on BBC Two at 7:30 p.m. on August 7, Dr. Aderin, Adam Hart-Davis and Janet Sumner will visit places where the exploration of the universe is being pushed to new limits. The programme, funded by the Open University, will seek answers to big questions about the Universe such as how was it made? Are we alone? What's the furthest thing we can see? Is there another earth somewhere and where is the most exciting place to explore? You can see Dr. Aderin in Seeing the Universe on August 21 and Violent Universe on September 4.

For more information, see <http://www.open2.net/cosmos/index.html>

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