

# WARNING: live

## Building the mind and breaking the mould

Neuroscientist Susan Greenfield is one of the most famous figures in her field. *MS* meets the first lady of science to talk about everything from medicine and the mind, to miniskirts and men



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SUSAN Greenfield is a professor of pharmacology at Oxford and a leading researcher into the neurochemistry of Alzheimer's Disease. She is also a star in the media and lecture circuit and a 'people's peer' appointed by Tony Blair to live in the House of Lords. She has spun out 4 different biotech companies from her research and she is a best selling science writer. And to top it off, she also happens to be director of the Royal Institution, one of science's great historical showcases.

Baroness Greenfield has been showered with honorary degrees for her contribution to the public understanding of science. She was awarded the Royal Society's Faraday medal and last year the French gave her the Legion d'Honneur. However, despite her many achievements, Greenfield has faced criticism for breaking the mould of the typical scientist. The stuffy world of neuroscience has found it difficult to watch a female scientist shine in the media and become a bona fide celebrity. To add insult to injury, Greenfield has a penchant for designer clothes and she is often photographed in

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miniskirts, leaving traditionalists to question whatever happened to the white coat.

**How did you become interested in neuroscience?**

When I started at Oxford, I studied classics originally and I got very interested in the philosophy of the mind (what makes us individual? What is consciousness?) But I soon

became disenchanted with philosophy as it was lots of linguistics and dissecting sentences in a rather anal way. At that time the fledgling subject of Psychology was being introduced, so I switched to straight psychology. Through this I became fascinated by the physical brain and the mechanics behind the behaviour.

**Your research into brain diseases means that you work closely with many doctors. What do you think makes a good doctor?**

The person I use as a role model for a good doctor is my friend Henry Marsh who is a consultant neurosurgeon. Henry has a huge amount of compassion and respect for patients, particularly since in the past he has been on the receiving end of bad news. Years ago, Henry was told that his 3-month-old son had a brain tumour. The child was saved by Great Ormond Street and Henry chose to go into neurosurgery because he was so impressed with the care his son received. The experience has made him far less *gung ho* than some surgeons might be and as a result he is amazing with patients.

**What do you think about the current lack of interest amongst medical students towards psychiatry?**

The WHO says that depression is going to be one of the biggest diseases (even bigger than HIV) in the 21st century. One in four people are going to suffer from the condition. We are living in a world that is becoming increasingly uncertain, not only in terms of security and environmental issues, but also in terms of our own identity and what we do with the leisure time we have. We're going to need as many psychiatrists as possible to help people who are disturbed, worried and frightened. I also believe that a lot of the mechanistic aspects of medicine will soon be replaced by robotics and databases so there will be an increasing need for professionals who can really engage with the mind. For me it's a huge priority because if



**Girl power: trendy scientist Susan Greenfield has the brains, the looks, and no Y chromosome in sight**

you're not happy, what's the point of anything else? I see treating unhappiness as one of the most important things in medicine - as important as pain management.

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**You're a woman who has made it in a man's world. What advice would you give to girls wanting careers in male-dominated fields such as surgery?**

Each generation thinks the problem has been solved and it never has. I think that women still have hugely challenging and complex lives ahead of them in medicine, more so than men. If you want to make it in a speciality that has a strong male competitive element, the path

you have to steer is to not become an honorary man, but you must retain a strong sense of identity and be able to fight your corner. I don't think that's easy, but as long as you are passionate about what you do, you'll do brilliantly - you'll work your butt off and as a result you'll probably be better than the men. When I'm on a flight and I hear the pilot's a woman, I always know we're in very safe hands because she must have been bloody good to have gotten where she is.

**Do you consciously break the mould of the typical scientist by wearing glamorous clothes?**

I think in life you just have to be yourself. The most important person you have to square up to every morning is yourself after all, and I care a great deal about personal integrity. I wear what I want to wear. If I was an advertising executive, would wearing short skirts be an issue?

**Why are you so passionate about bringing mainstream science to the general public?**

Just as you can go to see a good play or read a good book without having a degree in English

literature, you shouldn't need to be a professional scientist to understand the essence of a scientific finding. We are living in a world that is dominated by science and technology, and therefore I believe we need a scientifically literate society. If you don't know what a gene is, how can you debate GM foods? The Royal Institution is there to empower people and allow them to make up their own minds. I don't want people to leave an event at the RI like zombies, all programmed into thinking the same thing. I want them to leave discussing, debating, but above all *thinking* - just as they would after a really good play or film.

**You are keen on forging discussion between people of different disciplines (scientists, politicians, philosophers, medics). Why do you think it is so important to draw these different mindsets together?**

I have a portfolio career which means that I get to work with lots of different types of people. I think it is crucial that we don't compartmentalise our activities and that we communicate with one another. The more we can join things up and see things as a whole, the more we will progress. What saddens me a lot is when there are TV adverts for revision aids for kids, adver-

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tising "bite-sized, digestible chunks of revision". It should be the opposite. We should be learning to join things up, not chopping them into chunks.

**Leonardo Da Vinci was famous for joining things up. Why do you think he was so special?**

Da Vinci was the master of lat-

eral thinking; joining things up that would not previously have been linked. For me that's the essence of creativity - to be able to see how things fit together. Indeed, Da Vinci's ability to think laterally is an important lesson for medics who need to be able to see the big picture and treat the whole person.

**TimeOut magazine recently voted you one of the most influential people in London. How do you feel about that?**

Of course, it's fun and flattering, but you have to take these polls in the spirit in which they're done. I remember once being voted 14th most inspirational woman in the world by *Harpers and Queen* magazine but then Dolly Parton came ninth.

**You have met many famous people over the years. Who has really blown you away?**

I shook Bob Dylan's hand once and was totally starstruck. He just looked at me as though I was completely mad. I was also hugely impressed by Queen Rania of Jordan. She comes across as extremely well-balanced and considerate in what she says, as well as being warm and very beautiful.

**What would you describe as your greatest strength and your worst weakness?**

I have a lot of energy and I can survive on relatively little sleep if I have to. However, I can get very impatient and I tend to finish off people's sentences for them.

**What's your favourite...**

**Film?** *Women in Love* - Ken Russell

**Book?** *The Leopard* by Giuseppe Tomasi di Lampedusa

**Hero?** Nelson Mandela

**Quality in a man?** Sense of humour is probably the most important thing. Also, to be kind and to think about other people.