



The Photographer

Robert Taylor has specialised in artistic portraiture for eighteen years, and has pictures in collections, including those of the National Portrait Gallery and the Victoria and Albert Museum.

“My main photographic preoccupations are portraiture and bodies. I feed my fascination with people by not only photographing them, but also interviewing them whenever I can about all sorts of personal and worldly subjects, including their experience of the photographic process and the results. There’s lots of revelation, liberation, and fun.

I came to photography via the RAF, the Bar and educational publishing. Whilst photography remains my main interest, I enjoy distractions such as the co-production of a Channel 4 documentary about black divas and their queer fans (broadcast September 1996), and the occasional photography related TV appearance.”

The Collection

For Scientific Discovery and SET Innovation

Professor Carol Robinson
Department of Chemistry
University of Cambridge

Determined

“ I was advised to abandon what was considered to be a brave but maybe too ambitious project in favour of a safer one. I am so glad I didn't listen but instead pursued what I thought would be really interesting ”



For Scientific Discovery and SET Innovation

Professor Frances Ashcroft FRS

Department of Physiology, Anatomy and Genetics
University of Oxford

Passionate

“Find something that you are passionate about and stick with it. Never give up and remember that most people are happy to help.”



For Science Communication

Dr Averil MacDonald
Physics Department
University of Reading

Inspirational

“If you’re doing something that’s really ‘you’ then it’s more like a hobby than work and you achieve so much more.”



For Science Communication

Dr Sima Adhya

Technical Product Manager, QAT
QinetiQ

Committed

“ I wanted answers to the big questions like “Was there a beginning?” and “How did we get here?” Though still I don’t have the answers, I have learnt lots of exciting things along the way. ”



For Leadership

Professor Julia King CBE FREng
Vice Chancellor
Aston University

Dynamic

“Don't be afraid of change, it is exciting and renewing. Don't assume that what you study at University is what you must end up doing.”



For Leadership

Professor Ijeoma Uchegbu
School of Pharmacy
University of London

Pioneering

“What can be better than having lived a life, in which you know that you have made a difference in the world.”





Professor Carol Robinson FRS

Nominated by Tennie Videler, University of Cambridge

Carol has not just broken new ground in her field of scientific research; she has developed an entire new area of research. While doing that, she has maintained a very warm human side and has not succumbed to pressure to become as masculine as the world in which she has become successful.

Professor Carol Robinson has achieved her goals through intelligence and determination rather than privilege. She left school with little formal qualification and gained both A-levels and her degree studying part-time while working as a mass spectrometry (MS) technician in industry.

After her PhD, which she completed in two years, Carol took eight years out to raise her three children. Her family has remained paramount to her. During her time on a career break there were many innovations in the field of mass spectrometry but this did not faze her on her return, rather, she immediately realised their potential.

She returned to science as a technician for the chemistry MS service at Oxford University, but soon negotiated research time on the mass spectrometer to indulge in her own “eccentric research”. Based on this, she then built her own research group, soon becoming a professor. She has since become the first female professor in chemistry at Cambridge University and became a fellow of the Royal Society at the age of 46.

Carol is a great supporter of the many female members of her research group, encouraging them to fulfill their ambitions and giving advice and guidance along the way. She is very positive about providing the flexibility necessary to raise a family for the parents in her group.

Carol's inspiration

After leaving school at 16 I became a laboratory technician at Pfizer. I used to keep notebooks on my findings. These were discovered by my supervisor who after reading them thought that I would be wasted in my role as a technician for the rest of my life. He encouraged me to go to college to gain further qualifications. I owe him a great deal. Without his interest and advice I could still be the technician in the lab!

Proudest achievement

I am always surprised/delighted when I receive any award but perhaps the most meaningful for me was to be awarded a Royal Society University Research Fellowship. After an 8 year career break I didn't expect to be given such an opportunity. I was, and probably still am, the oldest URF they have ever appointed.

Reasons for women to be involved in SET

Because it is fun! I really enjoy my job and think that it is a great privilege to be able to do something that you enjoy as much as a hobby.

Advice to women getting involved in SET

Follow your passion and instincts - I remember when I started back in research I was advised to abandon what was considered to be a brave but maybe too ambitious project in favour of a safer project carried out in many other laboratories around the world. Many scientists did not believe that it would be possible to achieve any meaningful results. I am so glad that I didn't listen but instead pursued what I thought would be really interesting.

Advice to prospective SET employers

I now have a research group in the chemistry department at Cambridge in which the women outnumber the men 2:1. When I first started it was quite difficult for me to recruit women but I now find that I have women from Australia, China, Israel, Holland, Belgium, Italy, Croatia and Ukraine. They have enriched my research bringing different talents and skills. If you are only selecting from one demographic, this opportunity would be lost.

Feelings about the photo session

A little apprehensive, but when I saw how great the photos were from last year I was persuaded to give it a go.



Professor Frances Ashcroft

Nominated by Dr Heidi de Wet, University of Oxford

Frances is an inspirational leader. She is also strongly committed to training the next generation of scientists. Many excellent young scientists who have worked in her group now run their own laboratories and several have become high-profile young scientists in their own right.

Professor Frances Ashcroft has consistently made outstanding contributions to the understanding of how glucose stimulates insulin secretion and how this process is impaired by disease. She has been both pioneer and world leader in her field for over 20 years. For example, the scientific knowledge generated by her work has led directly to a new therapy for patients born with a rare form of monogenic diabetes, with spectacular results (these patients have been able to swap insulin injections for tablets). Her identification of a novel gene (Nnt) necessary for insulin secretion has opened an exciting new avenue for diabetes research.

The esteem in which Frances is held by the research community is illustrated by a string of distinctions. She holds one of the Royal Society's 15 Research Professorships. These were instituted in 1922 but, until 2001 (when she was appointed) only two had ever been awarded to women. She was made a Fellow of the Royal Society in 1989.

Frances's scientific achievements are even more impressive when set against the fact that she has also made significant contributions to the public understanding of science. She wrote a best-selling science book for the general reader, 'Life at the Extremes - the Science of Survival', and is acknowledged as an inspirational speaker at science festivals, museums and schools.

Frances's inspiration

Falling through a hedge into a green lane of wild orchids as a child. I instantly fell in love with natural history and from there it was a small step to the more experimental sciences.

Proudest achievement

Discovering one small - but crucially important - step in the pathway by which glucose stimulates insulin secretion from the pancreas.

Reason for women to be involved in SET

It is enormously rewarding. There is nothing more exciting than discovering something new!

Advice to women getting involved in SET

Find something that you are passionate about and stick with it. Never give up and remember that most people are happy to help.

Advice to prospective SET employers

Try to develop a flexible family-friendly career structure. Many young women enter science but few reach senior positions, partly perhaps because of the difficulties of combining a career with a family. This leads to the loss of many excellent, highly skilled (and expensively trained) female scientists.

Feelings about the photo session

An unexpected hedonistic delight.



Dr Averil MacDonald

Nominated by Professor Rod Eason,
University of Southampton

Averil's talk 'Fantastic Plastic' is the most successful lecture ever for GCSE students, 45,000 students having already seen it and that number is still growing.

Nothing is for free, it is said, but the tens of thousands of school pupils who have paid nothing to be excited by Averil's talks about science, or the hundreds of schools which have received her free teaching resources or her brochures and posters highlighting career opportunities in science, perhaps think differently. Not having a budget for such things, Averil raised the money herself – over £300,000 in five years.

Who would have thought of spreading the word about science through coffee mornings? Averil did, and developed what must be the most novel science communication project ever: 'Science with Coffee and HobNobs'. Mums and Grandmas talk about science over coffee and biscuits.

Her leadership in science communication was recognised by the Institute of Physics and the Royal Society of Chemistry. They commissioned her to write the booklet 'Outreach', which advises university academic staff how to communicate science.

Alongside her day job as a lecturer at the University of Reading, Averil has managed to write numerous magazine and newspaper articles, 17 school textbooks, and to appear many times on TV and radio.

Through all this, and more, she has demonstrated that it is possible to have both a high achieving career and a family, and thus fulfil an inspirational role for future generations of women in SET.

Averil's inspiration

My mathematics teacher pointed out that, as a female, I'd never have any trouble getting a job with science qualifications. So it was more pragmatism than inspiration! After that I discovered a love of performing and communicating science while teaching, and my career break gave me the chance to try new things – and here I am.

Proudest achievement

Two daughters – and this award, of course!

Reason for women to be involved in SET

The best reason to get involved is because you want to, not because someone says you should. One of the best things about being a woman in science is seeing the look of surprise on people's faces when I tell them – or perhaps that is one of the worst things!

Advice to women getting involved in SET

Work out what your real skills are and what really motivates you. If you're doing something that's really 'you' then it's more like a hobby than work and you achieve so much more.

Advice to prospective SET employers

Allow people to work as flexibly as they want – you'll get far more out of them than you are paying for. Working and being present on site are not the same thing.

Feelings about the photo session

I wouldn't want to be a photographic model for a living, but that's probably more a reflection of my wanting to be in control.



Dr Sima Adhya

Nominated by Dr Alison Hodge MBE, QinetiQ

Space scientist, Sima Adhya is full of charisma and has a talent for communicating her unsurpassed enthusiasm for her science to both peers and non-specialists alike.

Sima's passion for science and maths stemmed from school and just continues to grow and grow. In 2005 she completed her PhD in the field of Satellite Geodesy and Astrodynamics. Her work was in collaboration with NASA's Jet Propulsion Laboratories with her models now being used to aid the understanding of climate change.

In just two years in her current role at QinetiQ, Sima's passion and enthusiasm continues to make a significant impact. She has been involved in providing imaginative solutions to technical problems in the space industry and continues to contribute to projects, both in commercial and academic environments. She has published 8 papers in the open technical literature, winning a prize for the Best Paper at the International Institute of Navigation conference in September 2004 for her research work and an Amelia Earhart Fellowship Award in 2002.

When she is not working on her science she is communicating about it to audiences of all ages across the UK, Asia and Africa. She presents to schoolchildren, regularly appears on BBC Asian Network and appears in local and national TV and press. She was a runner-up in Fame Lab, received a BA Science Media Fellowship and is a SET schools ambassador.

In recognition of her hard work, enthusiasm and commitment Sima continues to receive accolades, notably a Management Today's "35 Under 35" Award and an Asian Jewel Award - Healthcare and Education category.

Sima's inspiration

I thought science was a rather romantic pursuit. I wanted answers to the big questions like "Was there a beginning?", and "How did we get here?". Though still I don't have the answers, I have learnt lots of exciting and useful things along the way.

Proudest achievement

The techniques I developed have now been incorporated in NASA's routine orbit determination software.

Reasons for women to be involved in SET

Science and technology underpin how our society works and scientists will play a key role in guiding the future of our planet.

Advice to women getting involved in SET

Do what you enjoy and work really hard at it. We can probably all achieve more than we think we can, so aim high. Also, banish the mystique and find what people really do in jobs by asking them. Know about the companies involved in the areas that interest you. Write emails, ask questions in lectures, go to careers fairs, visit websites and suggest yourself for work experience.

Advice to prospective SET employers

Promote science and scientific careers to young women in particular whilst they are still in school.

Feelings about the photo session

I felt quite relaxed in front of the camera and it was fun experimenting with different backdrops and poses.



Julia King

Nominated by Peter Saraga, Imperial College, London

Julia King has gained distinction in both technical and business leadership through a remarkable career.

During her research career at Nottingham and Cambridge, Julia created a major group and published over 140 papers on fatigue and fracture in structural materials. She acquired an international reputation for her work and was awarded the Grunfeld Medal of the Institute of Materials for achievement by a researcher under 40, and a Japan Society for Promotion of Science Fellowship.

In 1994 Julia joined Rolls Royce plc as the Head of Materials running a team of 250 engineers and scientists. Promotion soon followed and she was appointed to the role of Director for Advanced Engineering and then on to Managing Director of Rolls Royce Fan Systems – a £180million p.a. turnover business with 14 000 employees and 5 factories. Whilst at Rolls-Royce, Julia was elected to the Fellowship of the Royal Academy of Engineering and received a CBE for ‘services to materials engineering’.

Julia’s success and achievements continued when she moved to the Institute of Physics (IOP). She led and delivered the faculty’s research strategy and was responsible for a 60% increase in the faculty’s research income. A strong advocate of initiatives to support women in SET, Julia was also instrumental in initiating a diversity programme at the IOP, which supported the participation of women and under represented groups. She has also held speaker platforms at key events – namely the AAAS annual meeting in 2005.

Despite all this, Julia still finds time to speak at school prize days and mentor young women engineers. She is passionate that other women should be able to have the same opportunities and experiences.

Julia's inspiration

As I grew up, new 'fundamental' particles were being discovered weekly it seemed, and science seemed to be changing before our eyes. Exciting engineering developments were under way – nuclear power and Concorde. Science seemed to hold the key to both an interesting career and to health and wealth for the world.

Proudest achievement

The success of my students and research students.

Reasons for women to be involved in SET

For women – it offers exciting careers that are increasingly well paid, and women are still lagging behind on the pay stakes! For the country – we are missing half of the talent in science and engineering and if we are to address the problems of climate change we need all of it!

Advice to women getting involved in SET

Do something you enjoy and which is challenging. Don't be afraid of change, it is exciting and renewing. Don't assume that what you study at University is what you must end up doing.

Advice to prospective SET employers

Try and make sure that your recruitment information gets across the message that science and engineering is interesting, stretching, challenging and fun. Show engineers enjoying themselves, celebrating after a successful engine test or first flight in teams that people will want to be part of.

Feelings about the photo session

I enjoyed the session, it was very friendly and cheerful.



Professor Ijeoma Uchegbu

Nominated by Mrs Nke Eze, GlaxoSmithKline

Youthful, trendy and down-to-earth, Ijeoma is an inspirational role model to women, ethnic minorities and people from disadvantaged communities.

Professor Ijeoma Uchegbu holds a Chair in Pharmaceutical Nanoscience at the London School of Pharmacy, and is also the current Chair of the Academy of Pharmaceutical Sciences of Great Britain. She has invented technologies that have enabled medicines to work better and more effectively, and with her collaborators has also invented a cancer gene medicine. Her work is well documented in over seventy peer reviewed papers, book chapters and patents. Over the past few years Ijeoma's work has attracted funding in the region of £2M.

Being the first woman to be appointed in a senior leadership role in pharmacy/pharmaceutical sciences, Ijeoma has broken new ground. She has set the standard by being the first person of African heritage to be appointed to a Chair in pharmacy and also for being the first woman of colour to be appointed to a Chair in SET.

Happily married and a mother to four daughters, Ijeoma's meteoric rise shatters the myth that a successful career for women in SET is incompatible with family life.

During her spare time, she gives back to society by delivering motivational talks to inner city school children. Next year she will spearhead a day of celebration of science for 100 school children in the borough of Lambeth, a joint collaboration between the Academy of Pharmaceutical Sciences and the Royal Pharmaceutical Society.

Ijeoma's inspiration

I actually decided to do a science course at university because with science I felt that you got absolute answers and not responses coloured by ideology, personal history or entrenched opinions. This was important for me, when starting out, as I really wanted to know when I was actually right!

Proudest achievement

Balancing the needs of my four children and husband with a very stimulating and enjoyable career in science.

Reasons for women to be involved in SET

A career in science, engineering or technology gives a person the opportunity to change the world in very small or, if you are lucky, in very profound ways. What can be better than having lived a life in which you know that you have made a difference to the world?

Advice to women getting involved in SET

Do what excites you and what makes you happy, as then it will not be work but pure pleasure.

Advice to prospective SET employers

Productivity in areas which rely on creativity to be successful requires the best brains in a diverse workforce, which is reflective of society, as the creative process needs a variety of minds in order to deliver benefits for the society that they serve.

Feelings about the photo session

It was an hour of pampering indulgence, oodles of fun and most enjoyable way to spend a Saturday morning.

The exhibition on tour

To date, the Women of Outstanding Achievement Photographic Exhibition in SET has been on display at the following locations:

The British Library · The Royal Society · Yorkshire Craft Centre, Bradford · Institute of Electrical Engineers · Cheltenham Science Festival · Scottish Resource Centre for Women in SET · IBM Headquarters, South Bank, London · BA Festival of Science · The Royal Society – 2nd UK-Korea Women in Science Forum Dinner · Wales Resource Centre for Women in SET, as part of National Science, Engineering and Technology Week.

Future vision

It is intended that the Photographic Exhibition will continue to reach a wide range of audiences including women in SET themselves, employers, education bodies, policy makers and the general public, helping to make women in SET visible and thus contribute towards a change in culture.

The UKRC envisages that the collection will continue to provide a focus as an inspiration to all and will be displayed in Art Galleries as well as at science events, exhibitions and functions.

A permanent home

The UKRC is interested in hearing from any organisation willing to offer the exhibition and the ongoing collections a permanent home. It is anticipated that the collection will have a permanent home for 6 months of the year and will be on tour for the remaining 6 months.