**Tell me about the work you do at University of Leicester and your current roles.**
I am part of a world-leading group called Leicester Biotechnology Group (LBG) that is in the Department of Chemistry in the College of Science and Engineering at the University of Leicester. My work/duties are a mixture of teaching, research and a number of administrative roles.

***Teaching:*** I run a number of undergraduate (UG) modules in a variety of teaching scenarios including lecturing, problem classes, tutorials and project supervision. I supervise BSc, MChem and PhD students. I am also active in curriculum development and PBL resources that have been adopted by the Royal Society of Chemistry through their Learn Chemistry website. My teaching and learning support in higher education has been formally recognised having recently been appointed a Fellow of The Higher Education Academy (HEA). This is predominantly research-led teaching.

***Research:*** I lead research activity in the computational design of nanoparticles bases on a technique called Molecular Imprinting. I am internationally recognised as one of the main academic contributors, making a significant contribution to the field with over 50 publications in high-ranking journals, 30+ conference proceedings, two book chapters, plenary/invited speaker on numerous international conferences and co-chairing sessions. My current work involves applications of "nanoparticles and polymers" in drug discovery, detection of toxins and environmental pollutants and the computational design of polymers for clinical applications. I have worked with industry on funded projects with world leading multinationals in Pharma, SMEs, Charities, EU and UK Funders and academics around the world building partnerships for mutually beneficial collaborations.

***Business and Entrepreneurship:*** Several of my patents have been developed with my academic colleagues in Leicester Biotechnology Group, and have recently been exploited to form a spin-out company MIP Diagnostics (2015), I am a founder member focussing on nanoparticles for diagnostics and therapeutic applications. I am also actively involved in international activities for the University (predominantly China).

***Careers Tutor:*** Responsible for implementation of employability across the entire undergraduate chemistry programme. This is in the form of continuous personal and professional development (including CV, embedding skills, interview preparation, 1 on 1 mentoring, industrial placements and job applications).

***Plagiarism Officer:*** To ensure students comply with University Senate Regulations on student discipline related to plagiarism and collusion in the Department of Chemistry and responsible for cases where plagiarism is suspected and handing out of penalties.

***Administrative:*** I am also the Departmental Ethics, Equality and Diversity Officers and Departmental Exam Invigilation Organiser. I am a member on a number of committees such as Leadership and Enterprise and Admissions in addition to UCAS, Open days and Outreach activities.

**What inspired you to pursue a career in science and academia?**
I had great teachers at college and university that acted as roles models. I always had a fascination in science from an early age and loved Star Trek and Dr Who and any science fiction on TV. I had great teachers, Mr Carter at O level and Dr Cook at A Level, who were a real inspiration to me. The fact that I got on so well with them was the main reason I focussed on Chemistry and not the other sciences. I enjoyed Chemistry and wanted to know how the world worked. I was always good at Maths but the experimental part of Chemistry was what I wanted to do. It seemed very much like cooking. Taking ingredients and putting them together to create a product that was unrecognisable from the ingredients used to make it. This is why I went on to do a BSc in Chemistry followed by a PhD. When doing my A levels Dr Cook was the only teacher at Hill Road Sixth Form College that had a PhD and that intrigued me a lot, I think this was the early catalyst for thinking about what to do at University and beyond. I went on to do a post-doc but did not consider industry and sort of fell into academia, which I thoroughly enjoy.

**What challenges did you face and how did you overcome them?**
I had been given careers advice at 16 not to pursue an academic career and focus on working in my father's Indian restaurant. I went to a school in Cambridge that had very few people from any ethnic background. Out of 1200 students, the number of ethnic students was probably in the 10's. I wasn't sure what to make of this as I was in the top set for everything. My parents had already instilled this ethos of hard work in education so I ignored this and continued to work hard. There was some racism by students that was obvious as it was in your face and probably by staff that I was too young to realise at the time.

In an academic environment there are always challenges of publishing your work and generating income and on a few occasions have faced redundancy. I am part of a fantastic group with colleagues where we have built a group that helps with this vulnerability. I have worked with my colleagues for nearly 20 years and we are much stronger as a real research group and NOT a bunch of individuals that happen to fall under a scientific umbrella or virtual theme. These are my friends and my extended family.

**What are the 3 most important things you've learnt throughout your career?**

- If you find like-minded colleagues who you can work with respect and no pretentiousness then this is gold. I have known my colleagues Sergey and Elena particularly for nearly 20 years and we trust each other completely. This creates great friendships and rubs off on all our students (we create a really nice atmosphere in the group for students to flourish) and this results in great research output.

- Never dilute or compromise your scientific integrity. Don't let anyone tell you that you are not good enough or that your research is worthless.

- Never become institutionalised as this can lead to conformity and apathy and a defeatist attitude.

**Who has been your biggest inspiration/role model to date?**
In terms of Chemistry, it has been Dr Cook who still lives in Cambridge. I bumped into him last month while shopping and I told him that. The other person would be my PhD supervisor Professor Vaughan Griffiths. He took me on to do a PhD after my supervisor passed away in year one of my PhD. He got me through when it was a distinct possibility I may have to submit as an MPhil, but he helped me with my studies and employment and gave me all the technical skills needed for my academic career.

**In your view, what more can be done to address the STEM skills shortage we face in the UK?**
We need more outreach activities and go to schools and colleges like what we do at Leicester. We need to inspire children at a very early age and have positive role models. Look at what Tim Peak has done recently! We also need to get ethnic minorities more interested in STEM and overcome some cultural barriers to education. We also need to address the lack of women in science and top science related jobs. ATHENA SWAN (established by Equality Challenge Unit for recognising advancement of gender equality) helps with this. This can only be done through using staff and students who can disseminate STEM subjects in a meaningful and stimulating way, but it needs to be sustained and building relationships with local schools and colleges is a start. Putting on roadshows and workshops is also a way forward. I work in nanotechnology, which is a buzzword right now but do kids really understand what that is and how that can be applied? One big issue is that there is a perception in Chemistry perhaps that all chemists wear lab coats and are in the lab all day!

**What advice would you give to anyone interested in pursuing a career in science and academia?**
Choose a subject area that you really like. Science is a very rewarding area intellectually and if you are working on Applied Science maybe you will develop something that will benefit mankind. For example doing Chemistry not only gives you the technical skills, but also gives you excellent transferable skills that you can use every day. You also need to balance that scientific area that you like with what career opportunities are available at the end of your studies. Academic life is rewarding. You get to work with many people from different backgrounds on diverse research projects, nurture talent and travel worldwide like I have which has been such a highlight.