Meet the changemakers

A celebration of women entrepreneurs

THE ROYAL SOCIETY

Contents

Sir Adrian Smith
President of the Royal Society

"A scientific community that is as diverse and inclusive as possible can only improve what it is able to achieve."

It is only 80 years since the first women were elected Fellows of the Royal Society, but I think, if Dr Marjory Stephenson FRS and Dame Kathleen Lonsdale FRS were alive today and looking at the stories in these pages they would be very proud.

We have come a long way but there is still plenty more to do. Women account for less than one in five undergraduates in engineering and technology courses and are similarly underrepresented in computing courses. That is why we have chosen to celebrate the success of the women in these stories. They have taken great science and innovation and are applying it for the good of humanity. They can hopefully be the role models that will inspire future generations.

These entrepreneurs represent the full 'pipeline' of innovation from seed stage spin outs to growing companies and from those still in academia to those working for global tech giants. They represent the complex web of interactions that drive a thriving culture of innovation that, in turn, drives job creation, productivity and economic growth.

I am proud that they all have links to the Royal Society, whether as Fellows, members of the UK Young Academy or as the recipients of our funding schemes such as our Industry Fellowships, Entrepreneurs in Residence or our University Research Fellowships.

A scientific community that is as diverse and inclusive as possible can only improve what it is able to achieve. That really matters because innovation is the heart of the economy. The UK's tech sector is thriving, employing over 1.7 million people and contributing £150 billion to the economy and our life sciences sector continues to be a world leader, delivering new treatments and innovations. The people in these pages are the people behind those statistics. Taking knowledge and using it to improve lives.

Professor Janet Hemingway CBE FMedSci FRS

Fellow of the Royal Society (elected 2011)

Dr Janet Hemingway is the Founding Director of iiCON and Professor of Tropical Medicine at the Liverpool School of Tropical Medicine. At iiCON Janet runs a consortium of industry, academia and NHS, driving new infectious disease therapeutics through to market faster than they otherwise would. Starting with £18.6 million four years ago from UK Research and Innovation (UKRI), Janet now manages a £260 million portfolio working with over 1000 companies, of which two thirds are based in the UK.

While studying genetics at the University of Sheffield, it was a lecture on malaria that galvanised Janet's career in tropical medicine. She was inspired to study the molecular biology of mosquitoes and better understand transmission of disease and the development of resistance towards insecticides. This motivation was further cemented after seeing the drastic impact that mosquito-transmitted diseases had on populations in Africa.

At the time, mosquitoes were becoming resistant to insecticides and compounds, such as Dichlorodiphenyltichloroethane (DDT). Since 70% of malaria control is due to killing the insects before they manage to transmit the disease, Janet foresaw the broader issue of resistance and developed a solution based on knowledge of mosquito molecular biology. However, the greater challenges were unlocking industry investment, influencing regulatory frameworks and ensuring responsible management of insecticides.

By overseeing the pipeline of new products going to market Janet ensured that each product had a new mode of action and a different metabolic pathway, thus inhibiting the development of resistance in the mosquitoes. Janet and her team then embedded these insecticides onto bed nets with a slow-release formulation, maximising the impact on reducing disease transmission.

Being a woman in science and innovation meant that Janet often felt the 'glass ceiling' that she needed to break to be taken seriously. Despite this, she ascribes her ability to make an impact on her forthright attitude or, in her words in "being pretty good at kicking doors down", an attitude that has led her to work with organisations such as the Bill and Melinda Gates Foundation.

Looking back, Janet hopes that people will say that she made a difference and that her work catalysed the development of effective insecticides which meant that, across the world, hundreds of thousands of children are alive today.


“If a door wasn’t
open, I became
pretty good at
kicking it down.”

Dr Abigail Sellen FREng FRS

Fellow of the Royal Society (elected 2021)

Abigail Sellen is Lab Director at Microsoft Research Cambridge in the UK, with a research team in Nairobi, Kenya. She has had a distinguished career in both US and UK corporate IT labs and academic institutions. Her graduate studies combined a fascination with understanding and modelling human behaviour with mathematics, resulting in a PhD in Cognitive Science. However, it was an internship at Apple in the late 1980s that changed her career trajectory to what is still her current focus - the psychology of how to design computer experiences for users, in the field known as Human-Computer Interaction.

Much of Abigail's early work explored the design of video conferencing technologies, a topic with which the world would become so familiar during the COVID-19 pandemic. But over the years she has studied and designed many kinds of technologies, including input devices, healthcare systems, workflow systems, search, early mobile devices, and human-centric artificial intelligence (AI). Putting humans at the centre of the user experience has not always been accepted and understood in computer science. But now, in the age of AI, Abigail claims that putting human values and aspirations first has never been more critical. It is no longer important to just consider how we interact with AI systems, but how we live with them.

Although she has always had strong interactions with academia throughout her career, industrial research held much more appeal. Being able to work with interdisciplinary teams that include creatives, such as designers, as well as engineers, computer scientists and domain experts has been key to driving scientific progress. Abigail also regards working with people with complementary skills as being essential in delivering impact on society at large.

Abigail regarded it as a huge honour when she was elected as a Fellow of the Royal Society, especially as a scientist working in industry. Industrial research can be deeply technical, foundational and future-facing so having the Royal Society recognise its value sends an important signal. Since her induction, she has met many diverse and inspiring scientists and has greatly valued her involvement in various Royal Society workshops, contributing to reports such as *Science in the age of AI* which was published in 2024.

"With the pace of change in today's AI technologies, it has never been more important for social scientists to work hand-in-hand with computer scientists."

Professor Millicent Stone

Entrepreneur in Residence (awarded 2024)

Professor Millicent Stone is a practising clinician and entrepreneur who is driven by her personal motivation to enable people to live longer, healthier lives. This motivation led Millie to found iOWNA, a digital healthcare company, where she is the CEO. iOWNA is an online trusted clinical information platform that allows healthcare professionals to share important information easily with their patients and get relevant information back from their patients to drive decision making around their diagnosis and treatment. As a trusted platform, Millie aims for iOWNA to address the growing issues of misinformation, disinformation and information gaps for patients with chronic diseases.

Set up in 2019, Millie quickly realised that for iOWNA to become successful she would need skills beyond her medical degrees. This led her to learn the language of business and undertake a Masters of Entrepreneurship at the University of Cambridge. This deepened her understanding of the intersection between healthcare and innovation. She remains a practising part-time clinician in London, allowing her to stay in touch with key healthcare stakeholders, especially patients, to understand their needs to continue to grow iOWNA.

Before establishing iOWNA, Millie was diverted from her original ambition to become a world-leading researcher in ankylosing spondylitis by a phone call informing her that her daughter had been diagnosed with cancer. This changed the entire trajectory of her career. From that point, Millie's only priority was to be the world's number one mother and it was an experience she said that changed how she thought about the world. She discovered she wanted to become a changemaker and innovate in a way that positively impacted the lives of many.

Many years later, and with a healthy daughter, Millie's entrepreneurial journey continues. Working with her daughter, she is blending their combined love of creativity and design with their shared experiences in hospitals to develop and patent a sustainable, practical and innovative new hospital gown that will allow patients to feel good about themselves whilst enabling clinicians to examine them without them losing their dignity.

Sharing her knowledge and experience brings great joy to Millie and she is embracing her passion by mentoring and supporting up-and-coming entrepreneurs in her role as Visiting Professor of Innovation and Entrepreneurship at University of Bath. Building on this, Millie is working to establish a National Society for Innovation and Entrepreneurship to promote innovation with sustainable impact.

"What makes me get up in the morning is my love for starting off with a blank sheet of paper and building something from nothing with the hope that it might change our world for the better."

Wenmiao Yu
UK Young Academy Member

Wenmiao is a co-founder and Director of Business Development at Quantum Dice, a seed stage spin-out from the University of Oxford that utilises quantum mechanics to enhance stochastic computing and cyber security through high-quality random number generation.

While studying chemistry at the University of Oxford, Wenmiao took several professional development courses that piqued her interest in technology translation. Through these industrial experiences Wenmiao became interested in the commercialisation of research and in understanding the process of taking a product from the research stage through to market.

In her final year of study, Wenmiao undertook a four-week intensive entrepreneurship programme where she formed a group with students from other disciplines with whom she would later go on to found Quantum Dice. Sharing an interest in the market potential for a self-certifying quantum random number generator, Wenmiao and her group began their entrepreneurial journey. Having undertaken theoretical studies in quantum mechanics, she did market research looking at how the cybersecurity market and quantum technology could grow over the next 5 to 10 years.

As a result, Quantum Dice, leveraging the fundamentally statistical principles of quantum mechanics, works to solve one of the longest-standing problems in computing: generating trusted reliable randomness to be used as encryption keys in cybersecurity, and to seed Monte-Carlo simulations.

When data is in transit from point to point, it needs to be encrypted. All encryption relies on a source of random numbers to create encryption keys. However, existing solutions are slow classical random number generators or based on pseudo-random number generators which repeat after a certain amount of time. As a result, the predictability of these solutions creates a vulnerability.

Quantum Dice is currently a seed stage company that employs around 20 people. While working on a spin out has been a steep learning curve for Wenmiao, she admits that it is an experience she has enjoyed. While initially lacking trust in her own instincts and often deferring to someone more senior or with more experience for decisions, Wenmiao soon learnt that she could not outsource her decision-making. She had to apply her own critical thinking skills and have confidence in her own ability to make decisions on behalf of the company.

"We started as and still operate as an international team. We've learned how to communicate with each other and how to accept differences – looking back I think that has contributed greatly to the successes we have had."

Dr Katie Illsley-Wilkins

Short Industry Fellow (awarded 2021)

Dr Katie Illsley-Wilkins is the current Acting Chief Scientific Officer at Vertical Future, an engineering company specialising in the development of vertical farms. Prior to this Katie specialised in plant science where she undertook a PhD at the University of Birmingham that examined the molecular mechanisms that inhibit inbreeding in poppies. This work led her to several other academic positions including at the University of Cambridge where her work focused on plant responses to ozone stress and allowed her to explore controlled environmental systems. This academic work laid the foundation for Katie's transition into industry and her current position at Vertical Future.

Understanding the importance of translating research into real-world application, Katie was encouraged to apply for a Royal Society short Industry Fellowship. While working with Vertical Future during her short Industry Fellowship, Katie's work focused on integrating hyperspectral imaging into Vertical Future's R&D facility. This tool allows the collection of valuable insights into crop health and quality, allowing the tailoring of environmental factors to improve yield, quality, and energy efficiencies to benefit both growers and consumers of vertically grown crops.

Following the fellowship, Vertical Futures offered Katie a position, completing what she considers a natural progression from academia into industry. Katie understood the value of translating science, and whilst she had never previously worked in industry, she was eager to experience how her research and science could make real world impact. She now spends her days working in a multidisciplinary team of plant scientists, engineers, and software developers, designing and innovating vertical farming systems for highly automated food and pharmaceutical production as well as growth of trees to address carbon capture.

Katie understands the importance of showcasing post academic career opportunities and actively engages in encouraging students to explore industry opportunities. While she admits that it often feels uncomfortable introducing herself to new people, she has found it to be an essential element in developing collaborations and establishing key networks.

> "Moving into a commercial setting, I have more of an influence on what's actually happening on the ground and how we develop our systems, and I really like that opportunity."


SIMPLY
STAINLESS

Dr Nicole Robb

Dorothy Hodgkin Fellow (awarded 2017)

Dr Nicole Robb is an Associate Professor at the University of Warwick Medical School. With a background in microbiology and influenza biology Nicole wanted to try something more interdisciplinary and so completed a postdoc in biophysics. Through engaging with interdisciplinary research Nicole's career led to her to become the Scientific Co-Founder of Pictura Bio, a medical device spin-out from the University of Oxford.

Nicole has long been fascinated by viruses, how they work and finding novel ways to detect and stop them. She was awarded her Dorothy Hodgkin Fellowship to work in this area. At the onset of the COVID-19 pandemic the need for diagnostics became clear and Nicole and her collaborators identified a new way of diagnosing viruses that works as well as a lab-based test but gives results much faster.

The technique coats all viruses in a sample with fluorescent molecules on their surfaces, allowing optical imaging on a microscope. Different types of viruses, for example coronaviruses and influenza viruses, have distinct features when labelled, and can be differentiated from each other. Humans would find it difficult to make this distinction, however using machine learning algorithms trained to recognise specific pathogens different classes of viruses can be distinguished reliably and very quickly.

The aim of Pictura Bio is to take this process from the academic environment to the clinic, via the development of a small, portable, user-friendly medical device for use in surgeries and hospitals. Patient swabs are inserted into the device and viruses in the samples are identified within a minute. While this does not replace information based on the nucleic acid sequences of the viruses, it aims to guide medical decisions far earlier than other types of tests and is sufficiently sophisticated to distinguish between different strains of viruses.

Nicole was inspired by working with scientists and mentors who had experience of translating science and commercialisation and plans to continue generating real world impact from her research. Providing advice to others contemplating translation of their research she says: "Don't be afraid, just go for it, as even if it does not succeed you will learn so much from the journey."

> "For me, translation gives a greater purpose to doing science, and it has made my science better."

Professor Meiling Zhu
Industry Fellow (awarded 2021)

Meiling Zhu is currently Professor and Chair of Mechanical Engineering and Head of Energy Harvesting Research at the University of Exeter. Meiling is also the director of the spinout Encortec Limited, a company that makes devices which harvest energy from surroundings to power sensors and provide essential monitoring services.

The sensors can transmit real time data wirelessly for monitoring the condition of machines and critical assets. Beyond this they provide key data for predictive and preventative maintenance, with the potential to significantly reduce labour and material costs for organisations requiring these activities to operate.

The idea for Encortec came from Meiling's academic research on how to harvest, optimise and use ambient energy. The key issue was to harvest sufficient energy to be of use to industry, and Meiling found working with industry helped refine the product profile to meet their needs. With over 120 thousand kilometres of railways in Europe alone Meiling saw potential for a successful product that could be fitted to railways and harvest energy.

Despite no previous industry experience Meiling was driven down the commercialisation route by her desire to have an impact and do something different from achieving academic recognition

The Royal Society Industry Fellowship gave Meiling the time to form Encortec where she was able to divide her time equally between academia and industry. Meiling took full advantage of the management and business training offered by the Society which she strongly recommends to up-and-coming entrepreneurs.

Meiling's career is an example of the international nature of science. With a career spanning China, Hong Kong and Germany, she also held posts at the University of Leeds and the University of Cranfield before moving to Exeter. Meiling attributes her success to her forward-thinking and enthusiastic nature and to working hard. In academia failure is common, but for Meiling failure is the starting journey of success, if you can move on and learn from your failure.

"Even though I had no experience and was apprehensive, I felt I had to do something to bring my research to life."

Dr Gita Khalili Moghaddam
Industry Fellow (awarded 2024)

Leveraging artificial intelligence (AI) to push the boundaries of diagnostics has led Gita Khalili Moghaddam to establish several spinout companies, including GlycoVue. Whilst currently in the prototype phase, Gita's spinout companies aim to improve existing diagnostic methods that can take weeks to provide answers.

An outcome of her PhD at the University of Cambridge, GlycoVue uses a platform sensor technology that combines optical technology with artificial intelligence. The technology requires that a small polymer is engineered to respond to a specific biomarker that causes the complex to swell on contact. The increase in size is, however, undetectable to the naked eye. To solve this, holographic gratings embedded within the polymer respond to specific volume changes by emitting certain colours under illumination. These colour changes are then quantified in real time by an AI algorithm contained in a wearable device. This allows people with diabetes to monitor and manage their condition in real time.

Currently a Royal Society Industry Fellow, Gita splits her time between being a Principal Investigator at the University of Cambridge and undertaking her Industry Fellowship. The focus of her fellowship is to utilise similar artificial intelligence technologies to those used in GlycoVue to improve diagnostic pathways for tuberculosis. A recent breakthrough saw Gita and her team identify new image biomarkers which will work to identify Tuberculosis with greater accuracy.

Upon receiving the Industry Fellowship Gita spoke of how affirming it felt to be recognised both scientifically and in terms of translational impact. Despite having a strong academic focus early on in her career Gita considers herself an impact-driven person and as a result translating her research into real-world impact became a very exciting prospect.

"Translation has become a really important thing for me. I've learned that as soon as I come up with an idea, I need to build an ecosystem around my solutions and bring different stakeholders onboard to develop and refine a product."

Professor Natalia Ares

University Research Fellowship (awarded 2019)

Since 2021 Natalia has been an Associate Professor in the Department of Engineering Science at the University of Oxford. This followed a degree in physics from the University of Buenos Aires, a PhD at CEA Grenoble in France, a Marie Curie Fellowship and a Royal Society University Research Fellowship at the University of Oxford. Natalia now runs a group of around 15 researchers with a focus on developing semiconductor devices for quantum technologies. She is also the co-founder and Chief Scientist of spinout QuantrolOx.

To build quantum computers or other quantum technologies requires semiconductor components with optimised parameters. These parameters need to be controlled correctly to maintain the desired quantum behaviours. However, optimising these parameters in nanoscale devices is time consuming and unpredictable. Furthermore, to emulate the commercial scalability seen in the classical semiconductor industry such components need to be made reliably at a much faster rate than is currently available.

Inspired by an encounter with a professor, Natalia saw a way to use machine learning to 'tune' and characterise devices autonomously. Machine learning algorithms can take decisions on which measurements to make and which parameters to use, and optimise these for each device. This provides the required level of scalability as well as ensuring desired quantum behaviours are maintained.

Once this method became more widely known, Natalia found that many academic groups and companies were interested in what she and her team had developed. Acknowledging that the level of demand required a commercial approach, Natalia and her colleagues decided to spin out the company QuantrolOx. Development of quantum technologies has the potential to impact on a wide range of fields, from material design to drug design and communications. Natalia is excited by this potential and is currently working with a broader team to help build and develop these technologies.

The Royal Society fellowship has opened doors to further support and provides a sense of security from the network that association provided.


"If we build a quantum computer then we will revolutionise computing because it's not a matter of having a faster computer. It's a completely different way to compute."

Dr Caroline Barelle

Entrepreneur in Residence (awarded 2021)

Dr Caroline Barelle is the founder and CEO of Elasmogen, a 10-person biotechnology company located in Aberdeen. Elasmogen is a therapeutic biologics company, developing molecules which have the same attributes as natural antibodies, the human body's defence mechanism against disease. These molecules, known as soloMERS®, will be used to target autoimmune diseases and cancer.

Caroline's early career was through the academic route, undertaking a degree followed by a PhD and then postdoctoral positions. Having always been driven by the need to translate fundamental science into impact she took the 'brave leap' into industry and stepped away from academia to start Elasmogen in 2016. She notes there were very few women role models at the time, and no one to say that industry was an option. Caroline considers working in industry as a fantastic way to realise good research and translate that into real world impact.

Caroline has embraced the transition to becoming the 'conductor of the orchestra' and thrives on developing people and passing on her knowledge and experience through outreach and mentoring programmes. She acknowledges that being a CEO can be a lonely role as well as an emotional rollercoaster. There are often expectations that as the CEO you are the 'Oracle of Commercial Savviness'. By mentoring and supporting other CEOs, many of whom are women, Caroline has been able to pass on these experiences and develop the support networks she feels are essential for up-and-coming leaders.

Significantly many of these come, as Caroline herself did, from the university postdoctoral community and she believes that universities should ensure support is available to entrepreneurs and that the risk they are taking to set up a company is acknowledged, something she believes would be popular with the investors as well.

Caroline was delighted to be awarded her Entrepreneur in Residence (EiR) with Queens University Belfast in 2021. While the placement is now finished, the relationships and networks established during her residency are still maintained

Looking to the future Caroline identifies three key barriers facing early start-ups: access to sustainable amounts of capital, competition, and geographical access to talent.

She observes that, in our society today, women still have a lot more commitments from a personal and professional perspective, which makes support networks even more important – they are empowering, collegiate, and supportive and she feels they have been a key factor to her success.


“Diversity is key to success in our world, diversity of thought and experience.”

Dr Chiara Board
UK Young Academy member

After the award of a PhD from the Department of Chemical Engineering in synthetic biology at Imperial College London, Chiara Board went on to found and become the CEO of P.Happi®, a biotech start up in women's health. The company developed and manufactures a topical microbiome serum called P.Happi® that helps women who suffer from recurrent intimate health discomfort due to dryness, urinary tract infections (UTI) and other conditions associated with dysbiosis such as bacterial vaginosis (BV) and thrush.

The motivation for the company came from Chiara's own experience with recurrent UTIs; the lack of innovation and education in the space, and the dependence on long term use of antibiotics for treatment which disrupts the natural microbiome and exacerbates antibiotic resistance.

The company's technology depends on using a natural 'predator' bacterium, called Bdellovibrio bacteriovorus, which attacks and eliminates the causal pathogens, such as E.coli, which are Gram-negative, while supporting the normal natural microbiome, such as Lactobacillus, which are Gram-positive. While the characteristics of these predators have been known in academic circles for decades, their use for women's intimate health is pioneering. The Bdellovibrio bacteria are made in a stable dormant formulation, which is activated upon application, and by their nature do not colonise the skin once their food source is eliminated.

However, when it came to translating the science into a commercial product, Chiara, as a solo female founder, faced two main challenges: developing a novel approach meant that the product did not easily fit in any pre-existing category so she had to develop the entire manufacturing process from scratch, and negotiation of funding required support by Innovate UK and several rounds with both US and UK venture capital companies since the women's intimate health sector is not seen as attractive an investment opportunity as others.

After five years Chiara and her team have their first product on the market called P.Happi® and this will be launching in a major retailer from 5 March 2025 in a few selected stores and on Boots.com. With supporting data from trials and increasing interest from national and international partners Chiara and her team are currently seeking to scale up manufacturing.

Chiara is a member of the UK Young Academy (UKYA). She values her membership of the UKYA and is inspired to be part of a group of like-minded individuals, all of whom are committed to collaborating to make a difference in the world.

"As a PhD student, you learn to embrace uncertainty, push boundaries, stay persistent, and self-motivate — all essential skills that prepare you for the challenges of starting your own business."

Dame Angela Strank DBE FREng FRS

Fellow of the Royal Society (elected 2018)

Dame Angela Strank is a geologist by profession with wide experience in executive management and board director roles. Notably, Angela worked for bp plc for 39 years, ultimately becoming a member of bp's Executive Committee. Angela currently serves as a Non-Executive Board director of Rolls-Royce Holdings plc, of SSE plc, and of Mondi plc. Angela is also a member of Rio Tinto's Innovation Advisory Committee.

Angela's career was born from an interest in natural history, but growing up she was uncertain how she could forge a career in this world. Despite wanting to be an explorer in the oil and gas industry, at the time, women were not allowed to work offshore. This societal paradigm that certain professions, such as engineering and geoscience, or becoming a pilot or a high court judge, were not suitable for women, was something Angela challenged from a young age. When asked as a young schoolgirl to write about three things she disliked, 'unfair discrimination against women' was one of her answers.

Despite this, Angela had a strong desire to work in the oil and gas industry and explore the world, whilst working with different people and cultures. While studying at the University of Manchester, Angela undertook a PhD in micropaleontology, a discipline that she identified as a specialist skill that was needed in the oil and gas industry, and which could be done onshore. Micropaleontology enabled explorers to identify the layer of rock they were drilling through by the analysis of rock cuttings churned up by the drill. By examining these samples and identifying the minute microfossils, it was possible to determine the age of the rocks being explored.

Completing her PhD led Angela to be offered a position at bp. She worked in many parts of the world including the Netherlands, Canada, Norway, the USA, China, Africa and the Middle East, allowing her to build up the skills and experience that saw her identified as a future leader in the company.

Holding various titles over the years, Angela worked across a broad cross section of roles in technology, commercial, business development, oil and finance and digital business. Her experience culminated in her being appointed to bp's Executive Committee as Chief Scientist, and in 2017 being honoured with a Damehood for services to the oil and gas industry and for pioneering careers for women in STEM.

Angela's association with the Royal Society has given her access to networks and scientific insights outside of her energy industry career.


“If you see a paradigm that makes no sense to you and feels wrong, do your best in a respectful way to try and change it.”

Dame Molly Stevens DBE FREng FRS

Fellow of the Royal Society (elected 2020)

Dame Molly Stevens is the John Black Professor of Bionanoscience at the University of Oxford where she works with both the Department of Physiology, Anatomy and Genetics and the Department of Engineering Science. Molly's area of research focuses on the interface between materials and biological environments at the nanometre scale. Exploring the interface between living and non-living matter gives her the opportunity to translate this research into new technologies and solutions that have real-world impact.

Molly believes the best research and innovation happen through collaboration and in working as part of a team. She and her team investigate how nanomaterials interact biochemically and biophysically and apply the results to developing new healthcare technologies, such as SPARTA™. This tool uses laser trapping to analyse nanoparticles individually, providing physiochemical information, which is key to understanding drug loading, stability and protein interactions. These insights have far-reaching implications for drug development and assist in designing smarter, safer, and more effective drugs.

Molly considers her election as a Fellow of the Royal Society as not only a personal honour but as a major credit to her team and their creative and diligent work on the science. Through her association with the Royal Society, Molly has been able to connect with individuals who have enriched her career through collaboration and mentorship. Beyond this she has also enjoyed the opportunity to engage with and support early-career scientists and be part of a community that looks to push innovation forward.

Molly is eager to continue translating this work into real-world impact. She is determined to develop novel healthcare technologies that can move from the laboratory to people who need them most in resource-limited regions across the globe. Collaborating with scientists, clinicians, industry stakeholders and global partners, Molly's goal is to democratize healthcare technology. However, beyond all this, Molly realises the importance of supporting others and believes that if she can support young people to achieve their full potential, this will be just as important as any of her research breakthroughs.


“It’s important to me that my work has a real, tangible impact – where people have genuinely benefited from the science and that hopefully that science has made the world better and fairer.”

The Royal Society

The Royal Society is a self-governing Fellowship of many of the world's most distinguished scientists drawn from all areas of science, engineering, and medicine. The Society's fundamental purpose, reflected in its founding Charters of the 1660s, is to recognise, promote, and support excellence in science and to encourage the development and use of science for the benefit of humanity.

The Society's strategic priorities are:

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- Influencing
- Research system and culture
- Science and society
- Corporate and governance

For further information

The Royal Society
6 – 9 Carlton House Terrace
London SW1Y 5AG

T +44 20 7451 2500
W royalsociety.org

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