

2021

Annual Fellows' Meeting

7 December 2021

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All parts of the programme will be held online.

Session 1	14.30	Annual General Meeting
	15.00	Review 2020/21: Providing a voice for science in a health crisis A series of short talks will highlight the impact of the Academy's work during the COVID19 pandemic.
	15.30	Looking to the future An update on development of the Academy's 10-year vision and strategy.
	16.00	Foulkes Foundation-Academy of Medical Sciences Medal 2021 <i>Harnessing the power of whole genome sequencing for clinical purposes</i> Professor Serena Nik-Zainal, Cancer Research UK Advanced Clinician Scientist and Honorary Consultant in Clinical Genetics, University of Cambridge.
	16.30	Break The meeting connection will remain open for participants wishing to connect informally during the break between sessions.
Session 2	17:00	The 2021 Jean Shanks Lecture <i>Vaccine development in a pandemic</i> Professor Dame Sarah Gilbert FMedSci Professor of Vaccinology, Jenner Institute, University of Oxford
	18:00	Close

Agenda for the 2021 Annual General Meeting

Academy of Medical Sciences RC000905

1. President's welcome
2. Minutes

Resolution 1

Approval of the minutes of the Annual General Meeting on 3 December 2020

3. Honorary Fellows

Resolution 2

Proposal to elect as Honorary Fellows of the Academy

- Dame Kate Bingham
- Dr June Raine
- Dr Soumya Swaminathan

4. Next Vice-President (International)
5. Council election 2021
6. Fellowship election report 2020-21
7. Treasurer's report

Resolution 3

Adoption of the [audited accounts for 2020-21](#)

Resolution 4

Appointment of auditors for 2021-22

Resolution 5

Approval of Fellowship subscription rates 2022-23

8. Any other business
9. Review of the Year

Next year's Annual Fellows' Meeting will take place on 6 December 2022.

Minutes of the 2020 Annual General Meeting

Held on Thursday 3 December 2020 via Zoom.

Present:

Professor Sir Robert Lechler PMedSci, President
Professor Dame Anne Johnson FMedSci, President-elect
Professor Ed Bullmore FMedSci, Treasurer
Professor Paul Stewart FMedSci, Vice President (Clinical)
Professor Philippa Saunders FMedSci, Registrar
Professor Michael Malim FRS FMedSci, Vice President (Non-clinical)

Some 122 Fellows of the Academy

In attendance:

Mr Simon Denegri, Executive Director
Dr Susie Candy, Director of Biomedical Grants and Policy
Mr Nick Hillier, Director of Communications
Dr Rachel Quinn, Director of Medical Science Policy
Mr Aled Bath, Director of Finance and Resources

Staff of the Academy

1. President's Welcome

The President welcomed Fellows and guests to the Academy's first virtual Annual General Meeting (AGM).

2. Minutes

Resolution 1

The minutes of the meeting held on Tuesday 3 December 2019 were approved. Fellows voted by raising their hand on camera in confirmation of their approval.

3. Honorary Fellows

The following individuals were proposed for Honorary Fellowship of the Academy:

- Sir Bruce Keogh
- Professor Dame Ottoline Leyser
- Professor Lucio Luzzetto

Resolution 2

Fellows approved the proposal that these individuals would be invited to receive Honorary Fellowship of the Academy.

Fellows voted for each Honorary Fellow individually for clarity. It was highlighted that the Honorary Fellows would be welcomed personally at a suitable event in 2021.

4. Council election 2020

The following retiring Ordinary Council members were warmly thanked for their service and were acknowledged as valued members of Council:

- Professor Hilary Critchley
- Professor Dame Jessica Corner
- Professor Julie Williams

It was noted that the Academy's first electronic Council election took place in 2020, with nine candidates competing for three places in the election.

A record number of 532 votes had been cast, representing 40% of the Fellowship. Voting was conducted online. The election was administered and monitored independently by Civica Election services.

The following Fellows were announced as the new members of Council for 2021:

- Professor Mandy MacLean
- Professor Neena Modi
- Professor Eleanor Riley

5. Fellowship election report

2020 Fellowship election

Professor Philippa Saunders and Russell Crandon were thanked by the President for their contribution to the Fellowship election. It was noted that 50 Fellows had been elected in April 2020, and in November 2020 the total number of Fellows was 1326.

Fellowship statistics were provided by the President with a breakdown of gender, ethnicity and geographic spread and areas for improvement were identified. While the President commented that there was still a disproportionate number of Fellows in London, Oxford and Cambridge - the valuable work of the Regional Champions in promoting nominations from all corners of the UK was highlighted and the Fellowship was encouraged to consider nominating individuals from their local areas.

2021 Fellowship election

There were 57 'lapsed' candidates after the 2020 election. 297 existing eligible candidates enter the 2021 election. 87 new nominations had been received by September 2020.

A total of 384 candidates will be reviewed for the 2021 election. Up to 50 new Fellows will be elected in April 2021.

The Chairs and Members of Sectional Committees were thanked for their contributions to the Fellowship election and the timetable for the 2020/2021 was announced. The President highlighted the number of candidates and number of elected Fellows allocated to each Sectional Committee.

The President recorded with sadness the names of 11 Fellows who had died since the last AGM. Deceased Fellows are recorded on the Academy website.

6. Treasurer's report

The Treasurer presented the audited Annual Report and Accounts for the year ending 31 March 2020.

Another year of sustained growth was reported with the Academy's portfolio of activities continuing to expand and total income increasing to almost £17 million – an increase of 18% from 2018/19. Expenditure on charitable activities had increased to a total of £16 million, which represents an increase of 29% from 2018/19. Staff employment was flagged to have doubled over the past five years from 23 staff in 2014-15 to 50 by March 2020 with the management of growth continuing to be an important aspect of the Academy's financial planning.

Total income had been £16.65m of which income received for charitable activities had been £14.4 million, an increase of 26% from the previous year. This increase had principally been due to increased funding of grant schemes – the well established Springboard scheme and a new Professorship scheme designed to attract and retain emerging talent from across the globe to the UK.

It was noted that 88% of the Academy's income received is for specific projects, and is therefore counted as restricted income. A summary of sources of income showed that 60% of the Academy's funding was from central Government (up from 40% in the previous period). Wellcome was recorded as the other major funder, accounting for 20% of income received.

A review of total expenditure reported that 95% of the Academy's expenditure was on charitable activity with spending under the strategic objective of Developing Talented Researchers accounting for approximately 75% of total spend on charitable activities. The Treasurer also highlighted the trend for increased expenditure on work under the objective of Influencing Research and Policy as well as on Engaging Patients, Public & Professionals.

Total funds at the end of financial year were £12 million with Restricted and Endowment funds accounting for £6.6 million, Designated Funds (Building and Development) accounted for £4.17 million and the General Fund was at £1.34 million – with the surplus of £187k generated for the year bringing this Fund comfortably within the target range of between £1.25 million and £1.55 million.

A breakdown of the underlying assets showed that buildings and contents accounted for £5.5 million of this total with investment funds (managed by Sarasins and Partners) of £3.3 million and net current assets of £3.4 million.

Overall the Treasurer highlighted a strong financial position - but noted that the effect of COVID, in particular its implications on activity of the trading subsidiary would likely present a challenging situation for the 2020-21 financial period.

It was recommended to raise Fellows subscriptions for 2021/22 by 2%, bringing Clinical subscriptions to £367 and Non-Clinical subscriptions to £218 for the next year. Subscriptions would be due on 1 April 2021 and the Treasurer encouraged Fellows to

contact the Finance team to update any changes of bank details for direct debit payments.

Resolution 3

The audited Report and Financial Statements for the year ending 31 March 2020 were adopted.

Resolution 4

The re-appointment of auditors PKF Littlejohn for 2020/21 was approved.

Resolution 5

The Treasurer's recommendation that Fellows' subscription rates for 2021/22 should be uplifted by 2% was agreed and the new rates approved.

7. Next Academy President

Sir Robert Lechler officially introduced and welcomed the next Academy President, Professor Dame Anne Johnson DBE FMedSci, Professor of Infectious Disease Epidemiology, University College London. Sir Robert Lechler's term of office as Academy President would end after this AGM.

8. Any other business

There were no further items of business.

Sir Robert closed the meeting by acknowledging the Academy's support from the Department of Health and Social Care; the Department of Business, Energy & Industrial Strategy (BEIS) and the Academy's Helix Group. Fellows were encouraged to join the Helix Group, with a view to seeing participation of Fellows in this group reach 20%.

9. Review of the year

Sir Robert Lechler introduced a review of the Academy's performance during 2020, noting that despite the challenges of BREXIT and the pandemic, the Academy had made huge progress:

- Highlighted the continued growth experienced by the Academy, which effectively illustrates the desire to invest in the Academy's work, and also the Academy's trajectory of growing influence on policy. Particular reference was made to the Winter Report which had been commissioned by the Government earlier in the year to inform preparation for the winter ahead. Also highlighted work to optimise the interface between Academia and the NHS, where a series of recommendations are directed at both NHS organisations and the university sector more widely. Noted the Academy's intention to progress work on implementing these recommendations as the pandemic subsides.
- Commended the sustained focus of the Academy in career support, flagging new cohorts of the SUSTAIN and FLIER schemes as well the AMS Professorship

scheme. Reported on a successful bid for funding which had been invited by Wellcome, which reflects the high esteem in which the Academy careers programme is held and which will provide £15 million over the next few years.

- Commended the Academy's continued focus on increasing public engagement led by the Director of Communications, Nick Hillier. Highlighted as an example the Planet DIVOC comic project produced with, and for young people to promote wider understanding of the pandemic among younger generations.
- Commended the continuing focus on international work in this period and the energy exerted to maintain relationships with European partners and FEAM – with these partners highly supportive of maintaining strong links with the Academy despite Brexit. Also highlighted Academy support for LMI countries in the context of the pandemic through provision of workshops and other activities.

The President reflected on an unprecedented moment of history, affording immense opportunities for biomedical research but counter-balanced by a set of unprecedented challenges, discussing both in further detail:

The opportunities:

- development of curative therapies enabled by gene editing, regenerative medicine and the ability to manipulate the immune system
- the increased possibility of personalised preventative medicine to target intervention in those most likely to benefit and the use of technology to reinforce healthy choices
- deployment of emerging digital technology and AI to transform the model of healthcare delivery.

The challenges ahead:

- economic downturn
- stress on NHS
- impact of Brexit on European relationships and the UK's international reputation

The President closed his talk with a series of reflections on learnings that could be taken from the pandemic highlighting:

- the value of collaboration to address challenges and the need for academic groups both national and international and industry to put energy into supporting collaborative work to address scientific challenges
- that gaps in our knowledge have been exposed. Need for further research into the link between age and severe disease and the exploration of potential links between ethnicity and manifestation of disease.
- the need to address the scandal of health inequality
- the need for a fresh approach for population health, citing the disinvestment in public health of recent years
- that action is needed to create a more robust and resilient healthcare system for the UK which has only survived during the recent pandemic by displacing its routine work.

The Executive Director, Simon Denegri welcomed Fellows, grant awardees and partner organisations to the Academy's Annual Meeting and provided an overview of how Academy staff have responded to the challenges presented during the pandemic. Observing that organisations with a strong value set are best placed to weather challenge he provided an overview of how the Academy's values (Collaboration, Striving for Excellence, Integrity, Evidence-based and Inclusivity) and their associated behaviours (Agility, Kindness and Resilience) had been demonstrated to be at the forefront of Academy work over the year.

The Executive Director reported that that the Academy had been at the centre of intense media interest over the year with requests for coverage on multiple platforms including BBC, Sky News, BBC Radio, the Today Programme, and Channel 4. The Communications team were commended for their success and professionalism. The Executive Director also attributed the Academy's success in handling this unprecedented media interest to the **excellence** of the Academy's Fellows as communicators, including both the current President and the President-elect - who had been untiring in their response to media approach - and also the Academy's community of early career researchers. He thanked all for helping the Academy respond to the intense level of media interest this year. Due to their efforts the Academy had been able to fulfil its vital charitable purposes by 'putting good science and expertise into the public domain to help people make better sense of what is happening around them in an extraordinarily turbulent *time*' (*Fiona Fox FMedSci, Chief Executive Science Media Centre*). The Academy had provided clarity and **integrity** at a critical time when the public had been faced with an abundance of poor information and had contributed to public discussion with the authority afforded by its independence.

The Executive Director paid tribute to the professionalism of staff across the organisation, particularly acknowledging the policy team for their delivery of covid-related policy work in record time, without sacrificing any of its usual high quality, content or relinquishing on the commitment to **striving for excellence** and using an **evidence based** approach - on which this work must necessarily be based. The **inclusive** approach to policy work was also highlighted, with the Executive Director flagging the breadth of expertise among those involved in projects over the year, and the inclusion of perspectives from early career researchers as well as patients, carers and the public.

Simon Denegri congratulated staff for their **agility** in transitioning the majority of AMS activity to virtual platforms smoothly and rapidly, such that the Academy established a reputation for this successful transition and its advice was solicited by a number of organisations seeking to replicate this successful approach. A benefit of the move to virtual platforms had been a significant extension in international reach. The Executive Director reported that conversion to a fully virtual format had seen the International Health Lecture involve 400 participants across 66 countries in 2020 and he highlighted the intention to extend this model of event delivery into the 'new normal' to promote accessibility and reach.

The key role of the Careers and Grants teams in supporting the **resilience** of early career researchers was commended. Comparisons of web traffic between 2019 and 2020 had demonstrated large increases in online activity during early mornings and late evenings as well as at weekends – this 'out of hours' working indicative of the pressures

faced by those in the biomedical community. The Academy's response in establishing an online COVID resource signposting space for researchers as well as online careers support events and a PILLAR week of activity to compensate for the cancelled Winter Meeting had been well received and appreciated at this critical time, with hugely supportive feedback received by the Academy.

The Executive Director went on to explain that the set of values articulated for the Academy had been formulated by staff themselves during the summer and had been demonstrated very effectively over the last six month period, including by staff from the Finance team, who had produced accounts electronically and undergone a first predominantly virtual audit. The Facilities team were recognised for their commitment and hard work throughout the year, visiting Portland Place regularly, even during the peak of lockdown, in order to keep the building in order and prepare for its eventual reopening to staff.

Commitment to the health and wellbeing of Academy staff had been of critical importance this year - with the HR team and Senior Leadership Team showing real initiative and proactivity in ensuring the wellbeing of staff. Initiatives had included the establishment of a Wellbeing Team; increased HR support including the provision of resources and equipment for home working and to support more agile future working as well as the organisation of regular online social opportunities and activities for staff to connect.

The Executive Director closed by thanking the President for his contributions and support during the year and also paid tribute to the Academy's staff - providing a visual montage of the current team. Simon was in turn commended by Sir Robert for all his efforts and congratulated for his remarkable leadership in this challenging first year as the Academy's Executive Director.

Following talks from the President and Executive Director, a series of short talks illustrated the range of COVID-related work which had dominated the year. The speakers were Dr Rachel Quinn & Professor Guy Thwaites; Dr Virginia Newcombe; Nick Hillier and Mandy Rudczenko, and Professor Paul Stewart, all of whom reporting their first-hand experience of involvement in Academy activity either through policy work, public engagement or in demonstrating how they have directed benefited from the career support provided by the Academy.

A video recording of this part of the event is available on the [Academy's YouTube channel](#).

Date of next meeting:

The 2021 Annual General Meeting will take place on Tuesday 7 December 2021.

Biographical information for proposed Honorary Fellows

Dame Kate Bingham

Managing Partner, SV Health Investors and former Chair, UK Vaccine Taskforce.

Graduating from Christ Church, Oxford with a 1st in Biochemistry and an MBA from Harvard Business School, Kate Bingham worked in business development for Vertex Pharmaceuticals and strategy consultant firm Monitor Company before joining Schroder Ventures in 1991 (now SV Health Investments). She became a managing partner specialising in biotechnology, and has served on the boards of companies in the UK, US, Ireland, Sweden and Germany, including Autifony Therapeutics, Bicycle Therapeutics (named for their specialism in bicyclic peptides), Mestag Therapeutics, Pulmocide, Sitryx, and Zarodex Therapeutics.

Kate co-leads SV's biotech franchise which has a long history of building high value, successful new companies developing transformational new medicines and bringing drugs from discovery to market. In her 30 years at SV, Kate's biotech investments have resulted in the launch of six drugs for the treatment of patients with inflammatory and autoimmune disease and cancer.

Kate Bingham played an active role in setting up the Dementia Discovery Fund (DDF) and serves on the DDF Investment Committee. In May 2020 she was appointed Chair of the UK Vaccine Taskforce - reporting to the Prime Minister - to lead UK efforts to find and manufacture a COVID-19 vaccine on a six month engagement from which she stepped down as Chair in December 2020. On 8 December 2020 the UK started COVID-19 vaccinations - the first Western country to do so. She was awarded a DBE in the Queen's Birthday Honours in June 2021 for services to the procurement, manufacture and distribution of COVID-19 vaccines.

Dame Kate is a Trustee of the Francis Crick Institute and she won a Lifetime Achievement Award, presented by the BioIndustry Association UK in 2017.

Dr June Raine

Chief Executive, Medicines and Healthcare products Regulatory Agency (MHRA).

June Raine's civil service career spans 35 years. After qualifying in medicine at Oxford University, she undertook postgraduate research leading to an MSc in pharmacology. After general medical posts, in 1985 she joined the Medicines Division at the Department of Health before that function moved to the newly formed MHRA in 2003.

In 2006, she was appointed as the Agency's Director of Vigilance and Risk Management. In 2019 she was appointed as Interim Chief Executive of MHRA and came to wider public prominence in December 2020, when the MHRA was the first regulator to approve an mRNA vaccine for use in humans, and the first Western regulator to approve a COVID-19 vaccine (Pfizer and BioNTech). In early 2021, her interim appointment as CEO of MHRA was made permanent in recognition of her crucial role in the rapid authorisation of COVID vaccines.

Previous roles have included chairing the European Pharmacovigilance Risk Assessment Committee on behalf of the European Medicines Agency for six years.

June Raine received her CBE in the 2009 Birthday Honours list.

Dr Soumya Swaminathan

Chief Scientist, World Health Organization

Dr Soumya Swaminathan was appointed WHO's first Chief Scientist in March 2019.

A paediatrician from India and a globally recognised researcher on tuberculosis and HIV, she has 30 years of experience in clinical care and research and has worked throughout her career to translate research into impactful programmes. Dr Swaminathan was Secretary to the Government of India for Health Research and Director General of the Indian Council of Medical Research from 2015 . In this position, she focused on bringing science and evidence into health policy-making, building research capacity in Indian medical schools and forging south-south partnerships in health sciences. She was appointed as Deputy Director-General of the World Health Organization in 2017.

Previous roles have included service from 2009 to 2011 as Coordinator of the UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases in Geneva and until 2013, she directed the National Institute for Research in Tuberculosis (NIRT) in Chennai.

Dr Swaminathan received her academic training in India, the UK and the US, and has published more than 350 peer-reviewed publications and book chapters. She is an elected Foreign Fellow of the US National Academy of Medicine and a Fellow of all three science academies in India.

The WHO science division's role is to ensure that WHO stays ahead of the curve and leverages advances in science and technology for public health and clinical care, as well as ensuring that the norms, standards and guidelines produced by WHO are scientifically excellent, relevant and timely. Dr Swaminathan's vision is to ensure that WHO is at the cutting edge of science and is able to translate new knowledge into meaningful impact on population health worldwide.

The Foulkes Foundation Academy of Medical Sciences Medal 2021

The Foulkes Foundation Academy of Medical Sciences prize is awarded biennially to a rising star within biomedical research for contributing important and significant impacts to the field before, or in, their first independent position.

"I am delighted to present the 2021 Foulkes Foundation Academy of Medical Sciences Medal to Professor Serena Nik-Zainal, a ground-breaking scientist in the field of personalised medicine for cancer patients. Serena has pushed her research from fundamental concepts all the way through to life-saving implications for patients, and I am excited to see where her work leads next." **Mrs Maureen Foulkes-Hajdu, Executive Chairman of the Foulkes Foundation**

"The Medal recognises the significant work of young, innovative biomedical researchers. This year's winner, Professor Nik-Zainal, has made exceptional contributions to cancer research, putting together a cross-disciplinary team who work to ensure their research can deliver direct benefits for patients. The tools Serena has created – and shown the effectiveness of in patients – have profound implications for the future of cancer diagnostics and treatment. I am inspired by her drive to enable equitable access to genomic data, whilst communicating this clearly to the public." **Professor Dame Anne Johnson PMedSci, President, Academy of Medical Sciences**

Professor Serena Nik-Zainal

"Seeing the people that have used our algorithm and benefited from treatments they wouldn't have known they needed; that's what makes me want to keep pushing to take my work through further clinical trials and hopefully one day into general use. Showing that fundamental science really can improve the diagnosis and treatment of cancer by personalising it is incredible. What inspires me daily is the human impact of my work and seeing the lives that have been saved." **Professor Serena Nik-Zainal**



Professor Serena Nik-Zainal is Cancer Research UK Advanced Clinician Scientist and Honorary Consultant in Clinical Genetics at the University of Cambridge, Cambridge.

Her research holds the key to personalised and more effective treatments for cancer patients, by identifying the 'fingerprints' of cancer tumours in the pattern of mutations they contain.

After qualifying in medicine from the University of Cambridge in 2000, she undertook a PhD at the Wellcome Sanger Institute in 2009 exploring breast cancer using whole genome sequencing. During

her PhD, Professor Nik-Zainal and her colleagues discovered and characterised the specific pattern of genetic mutations that occurs within different tumours, called mutational signatures. This opened up an entirely new field of study which allowed for the causes of cancers, such as tobacco smoke or UV light, to be identified from a tumour's DNA.

Over the last few years Professor Nik-Zainal has pioneered research into the clinical applications of mutational signatures. She led the development of an algorithm that can detect specific breast cancers through their mutational signature, picking up those that are missed by conventional screening methods. She has recently demonstrated the algorithm's potential in predicting the most effective treatment for these patients, by taking it through a Phase II clinical trial in collaboration with colleagues and industry.

In April this year, Professor Nik-Zainal led the development of her second pioneering algorithm, which is used to spot the patients who may respond well to certain drugs that allow their own immune systems to attack their cancer. This algorithm has been trained to find the mutational signature that occurs in these specific cancers, meaning that the patients can quickly receive the correct, most effective treatment.

A champion of data sharing, Professor Serena Nik-Zainal is also leading a project to develop the necessary tools and infrastructure that will allow for large-scale, national clinical application of mutational signature research. With the 100,000 Genome Project sequencing the genomes from people all over the country, Professor Nik-Zainal is applying her algorithms to cancers the project picks up, learning about their causes by examining their mutational signatures. This knowledge will lead to more targeted therapies for patients with various cancers, saving people from unnecessary treatments and their toxic side effects.

Professor Nik-Zainal's fascination with the social impact of diseases led her to study genetics, where whole families are often impacted. An important part of her work is getting to know people and working out what makes them tick; be that the staff in her team or the patients that she sees in the clinics she runs. This passion for seeing the big picture is the real driver behind her work, taking the fundamental research through to the development of algorithms, showing their effectiveness in trials, and finally through to the real impacts in treatment for people with cancer.

Vaccine development in a pandemic

In 2014 there was a large outbreak of Ebola virus disease in West Africa, chiefly in Guinea, Sierra Leone, and Liberia, but with cases spreading to other countries. The virus was first identified in 1976 and there had been multiple small outbreaks, but vaccine development had proceeded slowly and no candidate vaccines had progressed further than phase I trials. In a belated response to the 2014 outbreak two new candidate vaccines entered rapid clinical development with encouraging early results, but efficacy trials were slow to start. Ebola is only one of many known viruses with the potential to cause outbreaks, and with the support of the WHO in identifying a list of priority pathogens, and the formation of the Coalition for Epidemic Preparedness (CEPI) to provide funding, vaccine development was initiated with the aim of having vaccines available in readiness for future disease outbreaks.

The last pathogen to be added to the list was 'Disease X', to represent a disease caused by a previously unknown pathogen, which would require rapid response. In the first days of 2020, it was clear that this pathogen was SARS-CoV-2, and a very rapid response was needed. Vaccine developers found ourselves attempting to put into place plans that were at an early stage of development, had not been funded and had not therefore been tested. Rather than working to produce a vaccine which could then be deployed in the 'outbreak area' we found ourselves attempting to develop a vaccine against a novel pathogen that was causing a pandemic whilst we ourselves were in the grip of that pandemic with every aspect of our work affected. This lecture will cover how that was achieved.

Professor Dame Sarah Gilbert DBE FMedSci



Professor Dame Sarah Gilbert DBE is the Said Professor of Vaccinology in the Nuffield Department of Medicine at the University of Oxford. She completed her undergraduate studies at the University of East Anglia and her doctoral degree at the University of Hull.

Following four years as a research scientist at the biopharmaceutical company Delta Biotechnology she joined Oxford University in 1994 and became part of the Jenner

Institute (within NDM) when it was founded in 2005. Her chief research interest is the development of viral-vectored vaccines that work by inducing strong and protective T and B cell responses. She works on vaccines for many different emerging pathogens, including influenza, Nipah, MERS, Lassa, Crimean-Congo haemorrhagic fever, and in 2020, initiated the SARS-CoV-2 vaccine project. Working with colleagues in the Jenner Institute research labs, the Clinical Biomanufacturing Facility and Centre for Clinical Vaccinology and Tropical Medicine, all situated on the Old Road Campus in Oxford, she is able to take novel vaccines from design to clinical development, with a particular interest in the rapid transfer of vaccines into manufacturing and first in human trials.

She is the Oxford Project Leader for ChAdOx1 nCoV-19, a vaccine against the novel coronavirus, SARS-CoV-2 which is now in use in many countries around the world. She has been recognised for her ground-breaking work in vaccine development, notably receiving the Albert Medal from the Royal Society of Arts and being elected as a Fellow of the Academy of Medical Sciences in 2021, as well as being named as one of Bloomberg's 50 Most Influential people in 2020. In 2021 she became a Dame Commander of the Most Excellent Order of the British Empire (DBE), for *Services to Science and Public Health*.

History of the Jean Shanks Lecture

Dr Jean Shanks was for many years the director of one of the UK's most successful independent pathology laboratories. She established the Jean Shanks Foundation, which has been a generous benefactor to medical science. Dr Shanks died in 2000 and her trustees endowed an annual lecture at the Academy in her memory. Awardees are chosen on the basis of their outstanding contributions to medical science.

Previous Jean Shanks Lecture speakers have included:

2020: Professor Irene Higginson FMedSci

2019: Professor Sarah Tabrizi FMedSci and Professor Gillian Bates FRS FMedSci

2018: Professor Janet Rossant FRS

2017: Professor Emmanuelle Charpentier

2016: Professor Uta Frith Hon DBE FRS FBA FMedSci

2015: Professor Jeffery Errington FRS FMedSci

A full list of previous lecture speakers can be viewed on the Academy website at: <https://acmedsci.ac.uk/about/ourwork/promoting-excellence/shanks>.

Donate today to protect the Academy's future and the future of medical science



As President of the Academy of Medical Sciences over the last year, I've seen first-hand the huge impact that your donations can have. The pandemic has been a defining moment for the Academy and our Fellows, researchers and staff have risen to the challenge by contributing hugely to the UK and global response. The Academy has and continues to fight for science and provide extensive help and support to our communities, in spite of the financial and wider challenges of the COVID-19 pandemic.

Philanthropic donations, including the unrestricted funding provided through the Helix Group, allows us to support areas with the most need, at a time when the medical science landscape is under exceptional pressure. The Helix Group includes the Academy's most esteemed individual supporters who donate £250 or more each year to the Academy. Please do consider joining. Helix Group members are publicly recognised on a commemorative board in our Fellow's room and on our website. Members also receive regular communications and an invitation to the prestigious annual Helix Reception, which we are now planning for early 2022.

As you may have seen, we have recently launched our Christmas fundraising campaign in line with Giving Tuesday, a national day where charities reach out to their supporters. Please keep an eye out for further communications regarding this and donate where you can.

Please visit the [Academy's Charities Aid Foundation webpage](#) to donate today. To amend your existing donation or discuss how you can further help and get involved, please contact Rosie our Fundraising Officer who would be delighted to speak with you: Rosanna.Tabor@acmedsci.ac.uk.

We are so grateful to our supporters at this hugely challenging time.

Any gift, large or small, will make a huge difference to the Academy.

Best wishes
Professor Dame Anne Johnson

We gratefully acknowledge our existing Helix donors

Our Helix Group brings together donors who give £250 or more each year to support us to deliver independent policy advice and provide crucial support for early career researchers.

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