The Academy of Medical Sciences

Impact Report

Changing the future of healthcare with science

How your support is helping to improve health for everyone

We are the independent, expert voice of biomedical and health research in the UK. The Academy of Medical Sciences' vision is 'Good health for all supported by the best research and evidence'. Our mission is to help create an open and progressive research sector to improve the health of people everywhere.

Your support is helping us to make medical science work for everyone.

We gratefully acknowledge members of our Helix Group of donors

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

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For more information on the Helix Group please visit www.acmedsci.ac.uk/supportus

Front cover photo - Academy awardees presenting at the Helix Donor Reception 2022: Dr Snehal Pinto Pereira, SUSTAIN; Professor Vincent Dion, AMS Professorship Scheme; Professor Alison Pilnick, FLIER

Driving change at a time of crisis

In response to the many health challenges faced by peoples across the world, the Academy of Medical Sciences (AMS) is able to draw on our Fellowship and global network of leading experts to identify where we can add most value – be it running impactful research programmes, supporting researchers on the frontline, facilitating collaborations to solve key challenges, influencing policy decisions, ensuring patient involvement in healthcare provision, or developing leadership for the future.

Your support gives us the independence, agility and flexibility to respond where the need is greatest and ensure we are leading the way in tackling the key challenges facing the health of our society. During 2021, we continued to provide critical advice to government, building on work that was launched at pace in 2020 in response to the COVID-19 pandemic; our policy work also included key projects around climate change, health inequalities and mental health; we continued to fund research grants and expanded our careers support for early and mid-career researchers; and we engaged with our largest cohort of patients as we continued our advocacy for patient participation. Key achievements from the year across these areas are highlighted in this report. During the year, we also developed our new ten-year strategy to bring together our vision and mission with key objectives and goals to tackle the major healthcare challenges we face. Your support is at the heart of achieving these goals and we look forward to sharing our progress with you.

OUR VALUES



Our heartfelt thanks

Without your support, our ability to be independent, to champion science and to help improve lives will be limited. Whilst support from government underpins much of our work, donations from individuals, including our Fellows, companies, trusts and foundations allow us to be truly independent, agile and responsive so we can help create an open, progressive and diverse medical research community that is able to tackle some of the most pressing health issues both at home and on the global stage.

We are immensely grateful to all our supporters but would like to highlight the contribution of some of our most long-standing and committed benefactors. Our heartfelt thanks go to: Sir Colin Dollery's family, Foulkes Foundation, Dennis and Mireille Gillings Foundation, Yusuf and Farida Hamied Foundation, Jean Shanks Foundation, Daniel Turnberg Memorial Fund, Wellcome Trust, Lord Leonard and Lady Estelle Wolfson Foundation, Wolfson Family Charitable Trust, our Fellows, Helix Group members and members of the FORUM.

We would also like to thank our government funders: the Department of Business, Energy and Industrial Strategy (BEIS), Department of Health and Social Care and the National Institute of Health Research, and those that have joined our consortia to fund our grants schemes as well as our career development programmes, including: the Health Foundation, the British Heart Foundation, Versus Arthritis, the Medical Research Council, Diabetes UK, British Thoracic Society, the Association of Physicians of Great Britain and Northern Ireland, Royal Society and Royal Academy of Engineering.

A year of impact in numbers



Grants

Over £9m of funding was awarded to 113 new grantees during the 2021 financial year

For every **£1** awarded in Starter Grant funding approximately **£13** has been leveraged in further support

In Round 7 of our **Springboard** programme, which supports newly independent biomedical researchers launching their research careers, **49 awards** were made to researchers across **32** institutions worth **£4.85m** in total across the length and breadth of the UK

Policy



More than **2200 attendees** took part in our Policy-led events, of which **84%** were run in partnership with organisations



Careers

PILLAR

Our latest report, 'A healthy future: tackling climate change and health together', has been downloaded nearly **6000** times and cited as a key source in **NHS Scotland's** new climate emergency and sustainability strategy



We engaged with **Government** and policymakers at the most senior levels including regular meetings with Ministers, the Government Chief Scientist and others.



Our FORUM network brought together 45 members linking industry, academia, healthcare and the wider sector for cross-sector policy discussion, hosting 12 events with 99 speakers and 1356 attendees

Communications







We involved **63** people with lived experience of various health conditions, such as patient representatives, carers and public contributors, in **nine** different Academy projects

Fellows

50 new Fellows were elected, bringing our total Fellowship to 1362, providing a wealth of expertise in support of our work



350 Fellows attended

our President's virtual regional tour from across the UK, including the devolved nations, as part of gathering evidence for our new strategy



Pillar, our online community for AMS

grant awardees and programme participants, reached **over 400** users

Nearly **1500 mentees** have benefitted from the AMS Mentoring programme, with 154 early career researchers being paired with Academy Fellows this year

45 women participated in media training as part of our **SUSTAIN** programme supporting women in research careers

Funding sources

Total income for the Academy in 2021/22 was £17.7 million and total expenditure was £14.2 million. Expenditure on charitable activities was lower than income due to the timing of expenditure falling outside of the financial year, the terms of the Academy's grant schemes requiring funding to be received in advance of award rounds, and challenges recruiting staff to fill vacant positions.

The majority of income was in support of the Academy's activities to develop talented researchers. A consortium of funders contributed almost **£13.4 million** towards our grants schemes that specifically address pinch points in academic careers, and our career development programmes including our flagship Future Leaders in Innovation, Enterprise and Research (FLIER) leadership programme, our acclaimed mentoring programme, our **SUSTAIN** programme, which supports female researchers, and **INSPIRE**, which promotes careers in research to undergraduates.

A total value of over £9 million was awarded in research grants with 113 new awardees receiving grants in the year.

Philanthropic donations are vital for our income and sustainability for the future. Donations, particularly those that are not restricted to a particular area of the Academy's work, allow us the flexibility to respond to the most pressing issues as they develop and maintain our truly independent voice.

Without this, our ability to champion science to help improve lives would inevitably be limited. Unrestricted income for the year was **£1.4 million** composed of donations to the Academy and income generated by the hire of space at our headquarters at 41 Portland Place, London.

EXPENDITURE 2021-22 £



SOURCES OF INCOME 2021-22 £

www.acmedsci.ac.uk

Helping us make a real difference

Your support is giving us the independence, flexibility and agility to make biomedical science work for everyone. From investing in our work to support the next generation of researchers and research leaders, to influencing policy decisions to create a more diverse and sustainable research sector to improve health, your generosity is helping to change the face of healthcare.

YOUR IMPACT ON DEVELOPING THE NEXT GENERATION OF TALENTED RESEARCHERS AND LEADERS

Dr Abbe Crawford Clinician in Neurology and Neurosurgery (Research Track), Royal Veterinary College



As a beneficiary of one of our Starter Grants for Clinical Lecturers, Dr Abbe Crawford has used her research funding to focus on translating basic science into clinical treatments for both human and veterinary medicine, with a particular focus on brain disorders, most recently centring on the brain changes associated with Duchenne muscular dystrophy (DMD). Abbe has also benefitted from our mentoring scheme and participated in SUSTAIN, our programme to support women in research.

"I joined the [Academy's] mentoring scheme at the beginning of my [Starter] Grant, through which I now have an excellent mentor. I was then able to participate in the SUSTAIN course, during which I gained a second highly distinguished, and yet very different, mentor from the Academy Fellowship. I have found it invaluable to have such open discussions with extremely successful researchers outside my institution; they have been very generous with their time, offering completely unbiased advice that I am already acting on and that I know will impact my career going forwards. The SUSTAIN course was outstanding; every session was informative, innovative and inspiring. I am certain I will use many aspects of the knowledge I gained in this course as I endeavour to develop my research career. It was a privilege to be part of a cohort of talented, driven female researchers and my co-coaching group have been a particular pillar of support, friendship, enthusiasm, and honesty."

Thanks to our partnership with funders and donors, we have supported **618 Clinical Lecturers** with Starter Grants providing over **£17.5 million** through 27 rounds of funding; our mentoring programme has now reached nearly **1500 pairings**; and our **SUSTAIN** programme has supported **136** women as they develop their independent research careers.





National Centre for Creative Health to champion access to creative opportunities for all and ensure that the voices of those with lived experience remain at the heart of the arts, health and wellbeing movement. His FLIER project is also growing into a platform to invite those working in biomedical technologies to focus on key areas of engagement, communication and responsible innovation (reach-biotech.org).

"As a biomedical engineer with a passion for the arts, I would like to bring ideas from the arts and humanities into the design of medical technologies for patient benefit. I'd like to see a shift in our focus from a medical problem we are trying to solve to the individual who is experiencing that problem. FLIER has allowed me to frame my ideas, ambitions and curiosities into a vision and provided skills and practical tools for implementing it, including invaluable coaching and peer support. Now I find myself mapping my ideas and how they can be positioned in the broader health sector, being more ambitious, but at the same time more realistic about the possibilities."

Thanks to our donors and partners, our unique **FLIER** programme is developing life sciences leaders of the future who can create collaborations across academia, industry, the NHS and government to drive innovation. To date, **35 participants** have completed the two-year, immersive, cross-sector programme and a third cohort of 19 participants start the **FLIER** programme in 2022.

Dr Christian Kieling (lead applicant), Universidade Federal do Rio Grande do Sul, Professor Helen Fisher (co-applicant), King's College London



This year has seen the work of two of our international grant awardees come to fruition. Dr Christian Kieling and Professor Helen Fisher were awarded a Global Challenges Research Fund (GCRF) Networking Grant in 2018 to facilitate collaboration and international networking in support of their efforts to develop a global interdisciplinary network for the early identification of adolescents at risk of depression. Through the grant and resulting networks they have formed they have succeeded in establishing the IDEA (Identifying Depression Early in Adolescence) global consortium.

"This GCRF Networking Grant and the fantastic international collaborations stemming from it have been essential to establishing the IDEA global consortium."

Dr Christian Kieling

The impacts of Christian and Helen's research collaboration include **24 shared publications**, **£1.2 million** in further funding, **14** additional international collaborators, and support for more than **20** Brazilian researchers.

YOUR IMPACT ON INFLUENCING FUTURE POLICY COVID-19: preparing for the future

The COVID-19 pandemic became the focus of much of the Academy's work during 2020, which continued into 2021, and during the year we became the 'go to' source of information on COVID-related matters for Government, the media and industry.

At the request of the Government Chief Scientific Adviser, a year on from the publication of our report 'Preparing for a challenging winter 2020/21' (July 2020), the Academy published a rapid review into 'COVID-19: Preparing for the future'¹ (July 2021). This review identified key challenges that were likely to put additional pressures on the health and social care system over the autumn and winter and outlined a series of options to mitigate their impact. Replicating and building further on our work to increase public dialogue around the pandemic, which saw 30 patients and carers from around the UK feed into the main report, we assembled a group of 13 patients and carers in 2021 who met regularly and helped write the review. During the year, we then undertook 12 teaching and briefing sessions with representatives from the Cabinet Office, Government departments and the devolved Governments to share our learning from the report and wider impacts of the pandemic.

Underpinning this work, the Academy held numerous workshops and symposia (in person and virtual) during the year that fed into the wider discourse around tackling the challenges of the pandemic and its impact on our future health. Our 2021 FORUM Sir Colin Dollery Lecture (November 2021) reflected on the UK's scientific contributions to tackling



the pandemic and what the pandemic has done to change research going forward. We also launched our COVID-19 Careers Support Space for biomedical and health researchers to provide resources and advice to help support their careers during the pandemic.

"It is for times like this that the Academy was created - and we will be needed more than ever in the coming years if biomedical and wider health research is to deliver effectively in responding to post-pandemic opportunities and challenges."

Professor Dame Anne Johnson, AMS President



This independent report which I commissioned from @acmedsci sets out recommendations to prepare for the challenges ahead this winter. The report makes a

valuable contribution to the scientific debate and it should help inform our continued response. -PV acmedsci.ac.uk/file-download/...

10:08 AM · Jul 15, 2021 · Twitter for iPhone

222 Retweets 94 Quote Tweets 548 Likes

Thanks to the generous support of funders and partners, our work on COVID-19 has provided expert advice to inform discussions on the impact of the pandemic on our lives, future health and the research sector, both in the UK and beyond.

¹ https://acmedsci.ac.uk/file-download/38576298

Climate & Health: the benefits of acting now

In autumn 2021 we launched our report showing that actions to tackle future climate change also deliver significant health benefits now. Partnering with the Royal Society, our report 'A healthy future: tackling climate change and health together'² was developed by a multidisciplinary working group of 11 experts. The report quantifies the health benefits of net zero policies in the UK, across various sectors, including healthcare, energy, built environment, and employment, and it sets out a series of recommendations to policy makers and funders on addressing the health benefits from action on climate change. Following on from this work, we delivered a joint event at the COP26 Summit in Glasgow in October 2021, presenting our work alongside global partners to help put health at the centre of climate action. As a result of this, we were asked to be involved in preparing a policy brief on climate change and health for COP27, calling for greater engagement on these issues, aiming to raise awareness of key approaches and solutions at a global level, and shape conversations during the Summit.

Following publication of the report, we also joined the UK Health Alliance on Climate Change to advocate for balanced responses to the climate and ecological crisis, promote the health benefits, and empower members and health professionals to make changes to respond to the crisis. As part of this group, we have been working to influence the consideration of net zero in the NHS Long Term Plan.



"Our report gives many 'win-win' examples of actions that would have a positive impact on health and the climate. Sectors including transport, food, building and energy should take health into account when implementing climate actions to capitalise on these double benefits. Many of the measures, such as improved public transport access and energy efficient housing, could also help decrease health inequalities."

Professor Sir Andy Haines FMedSci, co-Chair of the report Professor of Public Health and Primary Care, London School of Hygiene and Tropical Medicine

The generous support of our donors and partners enabled this work to be undertaken at this critical time, with immediate impact – the report generated **125 pieces** of media coverage, received **2000 views** on social media in the **first 24 hours** of launch, got over **42,000 impressions** in response to our first tweet, and has been downloaded over **8000 times**.

² https://acmedsci.ac.uk/file-download/12677226

AN ACADEMY FOR THE FUTURE

A snapshot of the year ahead



Covid work

COVID-19 will continue to be a focus for us, responding to the COVID-19 Inquiry and working with our Expert Advisory Group and Patient and Carer Reference Group to provide further information aimed at coping with the impact of the pandemic and building resilience in the health and care system to tackle future health crises and challenges.



Equity, diversity and inclusion

We will be launching our first three-year **Equity**, **diversity and inclusion** (EDI) Strategy in January 2023, followed by a diversity report in the spring. This supports our strategic priority to foster a research community that is trusted, open, diverse, collaborative and inclusive.



Cross-Sector Programme

Our new **Cross-Sector Programme** will promote health innovation by supporting greater crossdisciplinary collaboration between researchers by establishing regional hubs and funding for flexible secondments. The first hub is being developed with Life Sciences Hub Wales and will launch in summer 2022.

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Projects

We are currently scoping projects on 'Child and parental health' and 'Artificial intelligence in health', which will lead to reports and policy recommendations on these key areas that provide challenges and opportunities for our future healthcare.



International

We are planning for a set of global health workshops to enable us to work with other national academies to bring together researchers at various career stages and associated stakeholders to consider how scientific evidence can help address key global health challenges and build in-country capacity for tailored, local, impactful scientific research and policy.

Making medical science work for everyone



The Academy of Medical Sciences



Policy

The Academy is joining the Government Office for Science's new Knowledge Mobiliser Network to improve the flow and diversity of knowledge and expertise into Government policymaking.

Plan B/Horizon

Due to the ongoing uncertainty around the UK's association to Horizon Europe, we will be continuing our crucial work with the Government and the other National Academies to promote our ongoing association with Horizon Europe (Plan A), as well as devise a UK domestic alternative (Plan B) to ensure funding for UK research and innovation continues.

Research sustainability report

Our review into the long-term sustainability of health research (launched September 2021), will involve extensive evidence gathering from experts as well as the public and we anticipate the final report will be published in early 2023.



SUSTAIN

This year we had a successful evaluation of the **SUSTAIN** programme which supports women in research and, given the continuing demand for the programme and agreed support from our funders, we will be aiming to increase our delivery to two cohorts a year for the next three years.

25

25th Anniversary

'25 and Up: An Academy for the Next Generation' is our opportunity to celebrate our 25th anniversary during 2023, aligning with our strategic priority to support the next generation of our talented researchers to reach their full potential. **"**The launch of our new strategy in 2022 is a time to renew our commitment to Fellows, researchers we support, partner organisations, patients and the public to ensure that biomedical and health research is able to reach its potential in making the biggest difference to health in the future. This is a deeply uncertain time for science and society – from the pandemic and climate change to the continuing uncertainty over the UK's association to Horizon Europe and the terrible conflict in Ukraine ravaging humanity. The work of researchers will be fundamental to addressing each of these challenges – often in the face



Simon Denegri Executive Director

of seemingly insurmountable obstacles of their own – as has already been shown. Our activities for the coming year come out of the aims and objectives of the new strategy and will take forward our strategic priorities. Specific projects include those highlighted here and we look forward to sharing more of our activities in the future.⁹⁹

Strategic priorities 2022-2032

Improve lives

We will influence policy and practice to improve the lives of patients, the public and communities.

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Strengthen research

We will support UK biomedical and health research to strengthen its global competitiveness and reputation.

Support researchers

We will support the next generation of researchers to reach their full potential.



Work globally

We will work with our partners to increase the Academy's impact on global health.

Build resources

We will build our resources to ensure our longterm independence and effectiveness.





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