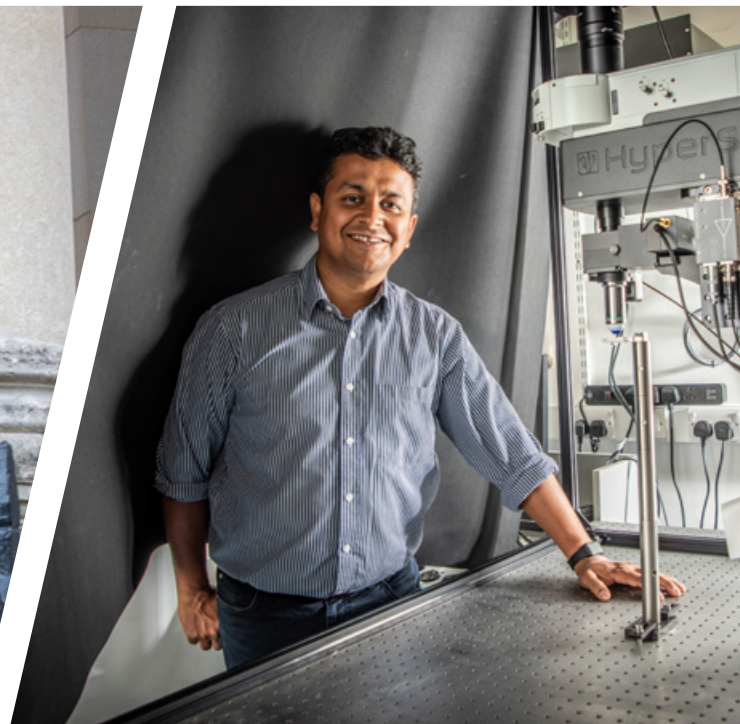




Vice-Chancellor's Fellowship Scheme impact report



Foreword

The University of Bristol is committed to fostering the best possible research culture and environment to enable everyone in our community to flourish and reach their full potential. We also want to inspire and support world-leading research of the very highest quality and make a positive impact in everything we do. To achieve these overriding ambitions, we must cultivate disciplinary strengths and interdisciplinary excellence, and maintain a diverse and inclusive research environment that attracts, develops, nurtures, and retains the greatest talent.

The Vice-Chancellor's Fellowship scheme launched in 2016 and represents a flagship initiative supporting our university to achieve these most important of aims.

Designed for early- and mid-career researchers, the scheme works to boost research and leadership capacity for our sector and provide a supportive environment to enable future research leaders to thrive. In the years since we launched the scheme, it's been fantastic to see the Fellowship cohorts develop through residential sessions, one-to-one mentoring, and a development programme, tailored to their individual career stages. This has covered areas such as research impact and innovation, public engagement, writing and teaching experience.

This investment in talent is a key aspect of our institutional strategy, enhancing our capability and capacity across a range of strategically important areas, including multidisciplinary activities and pedagogy. The impressive achievements across the scheme's cohorts speak to the model's success in aiding the University's goal to be internationally recognised for the quality and significance of our research.

As for the Fellow's themselves, they played a key part of our institutional Research Excellence Framework (REF) 2021 submission and each is clearly on their way to becoming an academic leader of the future – inspiring students and peers alike, fulfilling the role of ambassadors for



Professor Hugh Brady
Vice-Chancellor
and President



Professor Phil Taylor
Pro Vice-Chancellor for
Research and Enterprise

their fields and institution, and engaging and collaborating across disciplinary boundaries within and beyond the University.

In the following report, we showcase some of our Fellows and their remarkable achievements to date.

We are most grateful for the generous support shown to the Fellowships by the University's community of friends and alumni. Thanks to their philanthropic donations, our Fellows have been able to apply their considerable research skills to help society tackle some of the most pressing global challenges of our age.

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Dr Pierangelo Gobbo
2018-19 cohort

School of Chemistry

“ The Fellowship has allowed me to pursue my own independent research, which for an early career scientist is a huge deal ”

The Vice Chancellor's Fellowship scheme is very important for Bristol because it helps the University to attract the best of the best. There are many research fellowships nationally so researchers can choose where to go, but having this scheme here makes Bristol much more competitive.

The beauty of the scheme is that it's so research focused. Along with the award itself, you get career development courses, workshops on writing a grant application, or an article, all of which help you to hone your skills towards the goal of becoming an excellent academic.

Getting a Vice-Chancellor's Fellowship has allowed me to pursue my own independent research, which for an early career scientist is a huge deal, because it means you no longer have a supervisor. I was already a post-doctoral researcher in the School of Chemistry and, so far, I have been their only Vice-Chancellor's Fellow. I'm very thankful to the School because they have given me lab space and office space, and the opportunity to take up what is effectively a lecturer level position but focussed on research.

The start-up fund that came with the Fellowship meant that I could travel to conferences, establish my own network of collaborators internationally and, crucially, apply for grants. It led to me winning an EPSRC New Investigator Award in 2020, which is worth almost £400,000. This has been a game changer for me because it meant I could hire a post-doc – an excellent young researcher from France. Recently we successfully applied for an EU Marie Curie Fellowship. Because he's now funded, I can hire a second post-doc, so my research group is therefore growing rapidly.



My research explores a fundamental scientific question which aims to explore the gap between biology and chemistry: how can life emerge from non-living molecules? To better understand this, scientists have been trying to construct protocells, which are cell-like entities created from scratch using a combination of molecules, materials, and chemical reactions. We have been trying to take the next step: to make adaptive and autonomous biomaterials using protocells as building blocks, which are capable of emulating living tissues; and this year we made a huge breakthrough, with our paper featuring on the cover of *Advanced Materials* – one of the biggest international journals in our field.

The paper was my first as a principal investigator, and the EPSRC Award was my big grant. Looking back, neither of these would have been possible without me getting the Vice-Chancellor's Fellowship – everything cascaded from that moment.

Dr Sarah Daw

2017-18 cohort

Department of English

I was delighted when I found out I had got a Vice-Chancellor's Fellowship at Bristol. I saw it as a great opportunity not only to work with specific people but also to join an institution that had huge strengths, not only in my field of environmental humanities but also more broadly in climate science. The activities of the Cabot Institute were very much on my radar so I was really excited to join a university with big research strengths in this area.

My research explores the intersection of literature and environmentalism – how writers describe and engage with nature – and I also work on the history of the environmental movement. Professor Ralph Pite in the Department of English was instrumental in bringing me to Bristol. When I saw the Fellowships advertised, I contacted him and this helped me to develop a research link. He sponsored my application for the Fellowship in the first instance, and we've continued to work together.

Before beginning my Fellowship, I had not had much time during my academic journey to pause and reflect, going from finishing my PhD to finishing my first book. Having an away day so early on in the Fellowship allowed me to step back from the headlong pursuit of opportunities and to forge a path ahead that I'd really thought about.

The support network has been great from the start and we definitely formed an identity as a cohort. Although we were all early career researchers, we were at different stages: I had recently finished my PhD so found it helpful to meet people who were more advanced in terms of their research. Some of the group had a similar environmental focus to their work but in different disciplines and with different experiences, so the programme helped us develop some of those connections and also reflect on our own work. Overall, the training and support helped me to develop my identity as a researcher and also to grow my profile.

The funding from the Fellowship allowed me to do lots of archival research, including in the US. I also felt able to take my Fellowship in directions that suited me: for example, I set up and taught a Special Subject Unit based on my own research, which helped me to shape the ideas for my new project that I'm excited to be starting as part of my new three-year Marie Curie Global Fellowship from September.



“ The training and support helped me to develop my identity as a researcher ”

Dr Colin Nolden

2017-18 cohort

Bristol Law School

I had job interviews in seven countries. Out of all the jobs that I applied for, the Vice-Chancellor's Fellowship was the one which granted me, as an early career researcher, the most liberty to choose my research topic and the people I would work with. Overall, I think it's very rare to have such academic freedom at that level in a research career, and I've really enjoyed that. It has been challenging at times, but it has also been very rewarding. I've recommended the scheme to lots of people.

As an early career researcher developing a research portfolio, you have to be able to balance so many different requirements. At the start of the Fellowship programme, there were lots of opportunities to build these necessary skills, in writing grant applications, progressing as an academic and managing people in academia.

My focus as a social science researcher is on energy. Other UK universities have a much larger cohort of researchers with similar interests to me, and big research centres, so at first it was challenging to be one of the few people in my research field, especially within a big university like Bristol. On the positive side, there was an understanding early on that these Fellowships were quite prestigious, so I think our cohort was given quite a lot of time by senior members of the University. This definitely helped me to gain recognition as an expert or 'go to person'

in my field, which led to my representing the Cabot Institute at an all-parliamentary climate change group meeting, for example.

I've worked on a variety of projects during my Fellowship. Two years ago, I was part of the Riding Sunbeams project that succeeded in powering trains directly with solar energy, which was very exciting. Last year I won an ESRC Impact Accelerator Award to examine the impact of community energy organisations' work to alleviate fuel poverty. At the moment, I'm collaborating with colleagues in Bristol and researchers in Brazil on a project which looks at how communities in the Amazon rainforest engage with energy provision, and I've also won an EPSRC grant, working with researchers at Oxford, Edinburgh and Leeds, to assess the leverage UK cities have in delivering their net zero carbon ambitions.

Engaging with interesting people is one of the best things about my job. Because I'm one of the few people working in this area at Bristol, it has enabled me to establish collaborations with a much wider range of researchers than I would have been able to do at other universities. I've collaborated with engineers, computer scientists, anthropologists, historians, and people in management and business studies. Being a Vice Chancellor's Fellow has helped me to start those conversations, which have led to some interesting opportunities.



“ It’s very rare to have such academic freedom at this level in a research career, and I’ve really enjoyed that. ”



Dr Rebecca Richmond
2018-19 cohort

Population Health Sciences Institute,
Bristol Medical School

I see Bristol as the best place for doing the sort of work that I do. After my PhD, I was a senior research associate in Population Health Sciences. That contract was coming to an end when my line manager told me about the Vice-Chancellor's Fellowship opportunity. I had applied for other junior fellowships schemes nationally, but I got the impression that funders viewed relocating – effectively breaking the ties with the institution that nurtured you – as a step towards independence. I could see where they were coming from, but I had developed in this great department here at Bristol that was itself growing – I didn't want to be anywhere else. The Vice-Chancellor's Fellowship appealed to me because it allowed me to gain independence and elevate my academic profile, while staying in Bristol and staying affiliated with a great group. I feel very fortunate in that respect.

There is a certain prestige element to the Fellowship. You find that being able to say you're a Vice-Chancellor's Fellow really eases you into conversation with senior members of staff, which is good because it gives you exposure with some of the big names within the University.

Early on in the Fellowship, our cohort went on a retreat. Everyone was from different disciplines and had had very different academic journeys, but we found a lot of common ground and it was a really impartial forum for talking about our experiences and the challenges that we faced. It felt like mentorship because it was very open and honest, which is something that I've really valued since. Two or three of us still meet up or chat over email about various things, and if somebody had a successful grant

“ I see Bristol as the best place for doing the sort of work that I do. ”

application, for example, they would offer to share it, which has been useful. It's also led to a new collaboration with one of the other Vice-Chancellor's Fellows in cellular and molecular medicine, as we share a common interest in breast cancer research.

My research investigates relationships between health behaviours such as smoking, heavy drinking, being overweight, and whether there is a causal link between those health behaviours and the risk of certain chronic diseases. I use big data from large scale studies to tease apart these kinds of relationships, and then establishing the mechanism to disease by looking at epigenetics and changes in gene expression, for example. In 2018 I had a paper published in the British Medical Journal about causal relationships between sleep traits and breast cancer, finding that 'morning people' have a lower breast cancer risk. It led to a day of fame doing media interviews, which was an amazing experience and probably one of the highlights of my Fellowship. The attention it received made me realise that people are really interested in what I do, so I feel added responsibility to do some good research!

Dr Malu Villela Garcia

2017-18 cohort

School of Management

“ Having the flexibility and autonomy to engage with different groups and experiment with different types of collaborations was perhaps the most valuable contribution the Fellowship made to my career ”

I saw the Vice-Chancellor's Fellowship as an opportunity to explore my research interests and provide the freedom to experiment with other ways of doing research and being an academic. Overall, it has been a privilege, but not without its challenges.

My mentor, Professor Glenn Morgan, was very supportive in this process but also trusted me to find my own way of approaching my journey. I also appreciated the support from my school and the Inclusive Economy Initiative led by Professor Martin Parker, the Academic Staff Development team and my peers on the Fellowship, some of whom became good friends after the Fellowship ended.

Tackling social, economic and environmental inequalities is an urgent priority and local economies can play a significant role in how wealth is sourced and distributed for the many, not just the few. Choosing Bristol as my case study enabled me to get immersed in this multifaceted city and learn from its own communities about the struggles and barriers they face. I see connecting with the different movements inside and outside academia which are pushing forward the topics I'm involved with – bolder and more radical ways of developing local economies which have inclusion, sustainability and democratic governance and organising at their core – as a way of promoting real change through academic work. I was

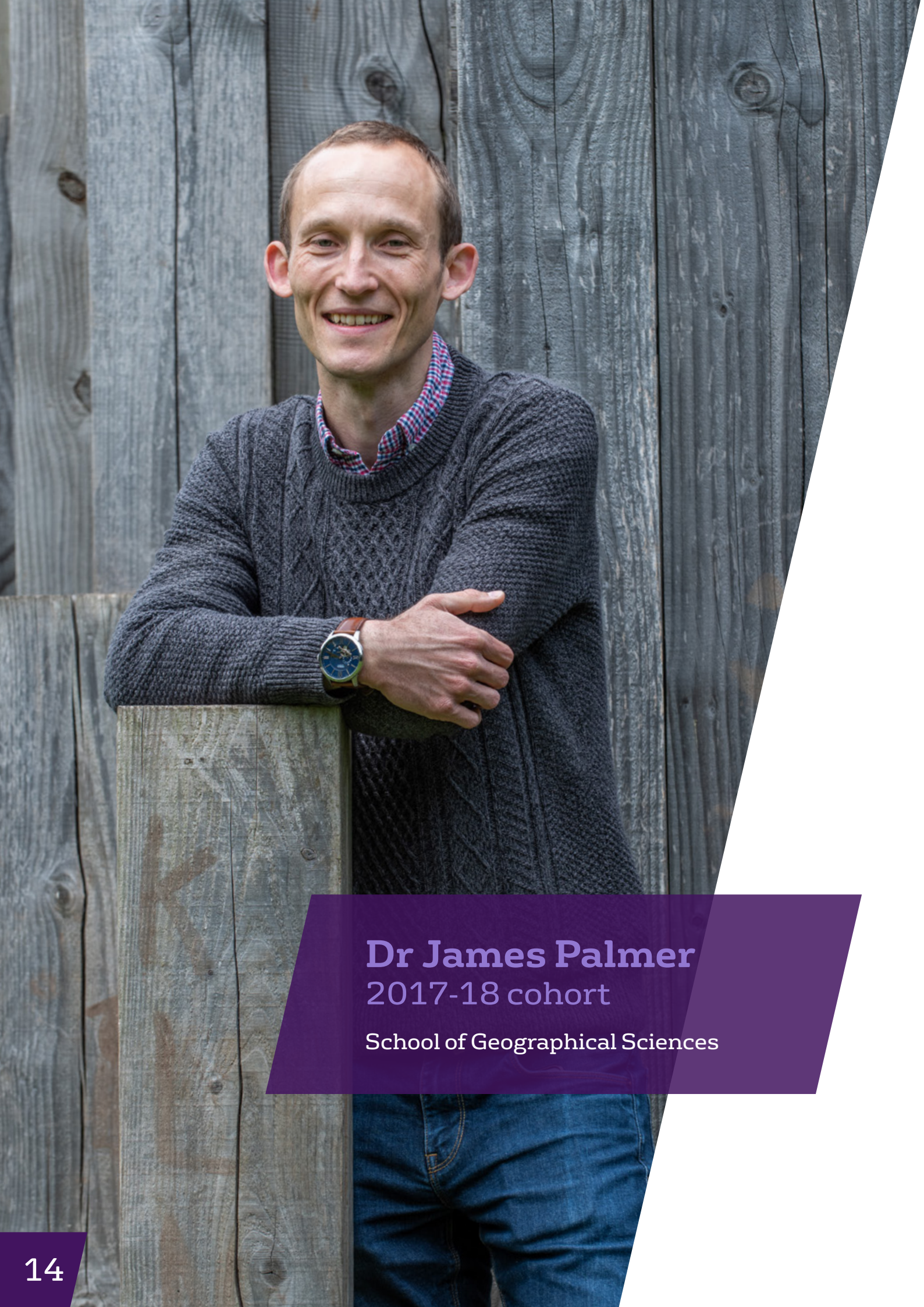


pleased to see my work contribute to Bristol being awarded a share of £33 million from Local Access in 2020, to support social enterprises tackling inequality.

Forging these connections with communities was the most satisfying experience of the whole Fellowship, but co-production and public engagement alongside more traditional academic work is not easy to manage. Building relationships demands time, attention and care, and while there are mutual benefits, it can't be done in a transactional way. Research can be a lonely journey and opening up to new forms of doing it pushes our boundaries and leads us to face our own vulnerabilities and fears.

We learn about the topics we are doing research about, but mostly we learn about ourselves.

Having the flexibility and autonomy to engage with different groups and experiment with different types of collaborations – with successes and failures – was perhaps the most valuable contribution the Fellowship made to my career. It provided the building blocks to secure an AXA Fellowship – the only UK-based researcher to be awarded in 2021 – which now gives me the opportunity to extend my research on inclusive, sustainable and democratic economies to other parts of the UK.



Dr James Palmer
2017-18 cohort

School of Geographical Sciences

I was running a Master's programme at the University of Oxford. Although it was rewarding, I spent most of my time either teaching or doing administration, so the prospect of a scheme that was explicitly intended to provide space and time for thinking deeply about what direction I wanted my research to go in – not just in terms of the next paper, but over the next five to 10 years – really appealed to me.

What feels unique about the Vice-Chancellor's Fellowship scheme is that it cuts across disciplinary boundaries. My cohort was roughly 50:50 science and humanities/social sciences – having that group as an alternative centre of gravity was great because it meant I wasn't just part of a community in the School of Geographical Sciences but connected to others across the wider university as well. The bespoke nature of the programme was also a strong point. So much thought had gone into designing workshops and events to help build a shared sense of identity among the VC Fellows within the University. There were 12 of us in the first cohort, and we had so many nice opportunities to meet up as a group – I think the academic staff development team did a brilliant job.

The wider culture in Bristol encourages people at an early career level to really interact across disciplinary boundaries. It inspired me to get involved in a University-wide mentoring programme, which has been a real highlight. You meet up every couple of months with someone who you have been paired with and have open and honest discussions about the things you think are going well, and things you're worried about. It's great to be able to share some advice that might be helpful.

“What feels unique about the Vice-Chancellor's Fellowship scheme is that it cuts across disciplinary boundaries.”

The Cabot Institute especially has given me lots of valuable opportunities to interact with people in different disciplines who are interested in the same empirical processes and problems as me, around energy and climate change. My research focuses particularly on bioenergy – I've worked with colleagues to run participatory workshops for policymakers, industry groups, NGO's and citizens to generate discussion around the role that bioenergy should play in future responses to climate change. But I also try to argue that we need to go beyond questions of sustainability and efficiency, to rethink societal relationships with energy use more broadly.

I've had three great years to focus on my research, get a few papers published and make the next step, career wise. Halfway through my first year, a permanent lecturer position in environmental governance came up. I applied because that kind of opportunity might not come up again. I was fortunate to be offered it and my department generously said I could finish my Fellowship before starting the lectureship full time. So, the Fellowship definitely served its core purpose for me.

Dr Nikolai Bode

2017-18 cohort

Department of Engineering Mathematics

The University's approach to engineering is one of the things that really attracted me to Bristol and made me want to stay. My department, Engineering Mathematics, is very interdisciplinary – there's never been a question of conforming and I've had no pressure to follow a particular route; instead, I have the freedom to explore and connect with others, which is something I find really liberating.

I use mathematical and computer models to try and understand social behaviour, both in animals and in humans. Increasingly I'm focusing on how people interact, and how we can understand, explain and even predict aspects of these interactions. I was already on a Levenhulme research fellowship and really wanted to stay in Bristol when it finished, so the Vice-Chancellor's Fellowship was an opportunity for me to continue my research here, on a project of my choosing.

One of the great things about the Vice-Chancellor's Fellowship scheme is that it gives you a lot more time and space for your research, along with the ability to take it in new directions. For example, it has brought a digital health aspect to my own research, where I have been working with colleagues

in public health science and computer sciences on a study examining air quality and transport movements in the area around Bristol Royal Infirmary and Bristol Royal Hospital for Children. The air quality monitors and sensors we've installed will give us data 24/7 for the next two years, which we can use to develop a better understanding of how changes in traffic change the extent to which people are exposed to potentially harmful pollution. I'm also looking at ways to track pedestrian traffic city-wide, as we don't have the kind of real time information than we have for vehicle traffic. If we could generate this level of data, it could radically change how we think about planning, safety and commerce across the city.

Being a Vice-Chancellor's Fellow has been quite a different experience to my previous fellowship because I have really got to know my peers in very different disciplines. It has definitely been helpful to share experiences, and really enjoyable as well – they're a nice group of people. Looking back at my Fellowship, I find it really difficult to pinpoint just one highlight – I think it has been the holistic experience. I'm in a great working environment doing interesting research, and it has been really enriching to interact with the other Fellows.



“ Looking back at my Fellowship, I find it really difficult to pinpoint just one highlight – I think it has been the holistic experience. ”



Dr Shamik Dasgupta
2019-20 cohort

School of Physiology, Pharmacology
and Neuroscience

Professor Matt Jones from the School of Physiology, Pharmacology & Neuroscience – who I knew already through working as a post-doc researcher at Oxford – recommended I apply for the Vice-Chancellor’s Fellowship because it was a great opportunity to start my own lab here at the University of Bristol.

I feel that the Vice-Chancellor’s Fellowship gave me the launchpad for starting my independent research career. I knew that it would not only allow me to open my own lab, but also gather enough experimental data to secure a big grant, which it did: not long after I had started my Fellowship here, I found out I had also been awarded the Henry Dale Fellowship from the Wellcome Trust. When I heard the news, I was ecstatic! All of the experiments I had proposed were technically challenging, but necessary if we were to directly address some important questions in our field. I was so happy to see that the reviewers felt the same way and thought that my lab had the capability to run those experiments.

We’re interested in understanding the link between memory, time and the brain’s decision-making systems, by running a series of experiments using the fruit fly as our model system. For example, we have set up a virtual-reality arena in the lab where we can monitor the neuronal activity (basically, what’s happening in the fly’s brain) when trying to navigate from one place to another in a virtual landscape.

Understanding the link between gene expression and cognitive processing is a difficult task. While the scopes of psychiatric disorders are far more complex than simple behaviours used in my lab, simple systems help us focus our attention on critical functions and, consequently, fundamental dysfunctions. My lab tests how genetic and pharmacological perturbation of a ‘simple’ executive function circuit affects a higher-order cognitive process. Studying and manipulating the genes regulating



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such circuits could provide genetic targets for human linkage and association studies for neuropsychiatric disorders of executive functions like autism, obsessive-compulsive disorder, depression, and schizophrenia.

Starting a new job, in a new city, in a pandemic has certainly had its challenges, but the School has been excellent in getting the lab space ready and, considering the circumstances, we are making really good progress with our research. Zoom calls definitely make me miss the human interaction element of being a researcher though. At the moment, I only have a small research group - two PhD students, a post-doc and me - but we are recruiting another post-doc in a few months, so I’m looking forward to having us all together in the lab when that’s possible.



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