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**PI Case Studies**
Professor Barrie Mecrow

Job title: Professor of Electrical Power; Head of the School of Electrical and Electronic Engineering.

‘People who know you care about them will give you so much more back. That is the way I work with everybody. Think about their future careers and treat them as you would hope to have been treated.’

What is your main area of research?
This is within electrical power – novel electrical machines, generators and their applications. We do a lot on electric vehicles, and such things as replacing hydraulic systems with electrical systems in aircraft. I started my career researching the electromagnetics of large generators in power stations, but over the last 20 years there has been much more focus on novel motors, along with all their associated electronics. We work closely with a large range of aerospace, automotive and industrial companies: we also have a Dyson research centre here too.

How do you engage with researchers at the start of their employment with you?
First of all, I let my researchers know that I care about them. The ethos I like to promote in the School is one of treating research staff equally, providing access to meetings and getting them all involved in decision-making. From the outset, I have regular meetings with them to talk about where they want to go. They have careers to develop so I try to build good relationships with them, making sure they can get recognition for what they will be doing. I am very keen to have proactive people who are good team players: people who I think are going to go somewhere in the future and help us to become bigger and better at what we do.

What kind of ongoing support and management do you offer?
With all of them I will tend to have weekly project meetings. I also involve them with companies and introduce them to visitors, without any sense of demarcation. And I’m certainly supportive of getting them on training programmes organised within the University, as well as other activities outside. My general approach to management is setting clear targets, being honest, and understanding why somebody may not be performing
well. It could just be they haven’t got enough direction or support, so I try to make sure I get that right from the start. No academic has time to micro-manage everything, so it is much better if you have a team you can trust and let them get on with it, taking responsibility for their own future direction. I try to use particular skills, such as those of a senior researcher who came here with a lot of experience from industry, but had no academic experience since leaving university. I got him promoted at a very early stage. You have to take some risks like this but you get a lot of loyalty back, so it works well.

**How do you encourage and support the career development of researchers?**

I try to keep the team happy and give them opportunities for career progression. If they want to become an academic, I will help them understand what kind of research papers they should publish. They would tend to take the lead in writing a paper, but then it would be passed through me and we would discuss it. Often I might come up with an idea for what we could publish and perhaps I would involve them at some stage as investigators on grant applications, and help them think about the other things that will be needed. One of the things I am happy to see happen is that one of my research associates is doing nearly all the work on a big EPSRC grant I’ve got across five universities. This is valuable experience. I help to promote researchers to the outside world, although a problem I face is that they get offered jobs in industry. This is painful at the time as I have lost a number of staff to industry, but it is just something you have to accept because people have got to be able to move on.

**Are there any other experiences, or pitfalls, you would like to share with new PIs?**

People who know you care about them will give you so much more back. That is the way I work with everybody. Think about their future careers and treat them as you would hope to have been treated. If I don’t get close enough and give clear direction, however, a researcher can quickly lose motivation. This is something I’ve twice fallen foul of, and lost people as a result. One of the things we are really missing as a university is to have posts, other than just academic ones, which people can grow into and where they might generate their own funds. We need a better career structure, but at the moment we haven’t got a very clear career path for those who don’t want to become academics.
Job title: Professor of Climate Change Impacts; School of Civil Engineering and Geosciences.

‘It is important that I always make time for my researchers and have a good relationship. I always introduce members of my team to people I know outside the University.’

What is your main area of research?
I look at climate change impacts in different parts of the world, and in particular on water supply systems, floods and droughts. We examine extreme rainfall events; how these are changing now and how they will continue to change in the future under global warming. This mainly looks at Europe and the Himalayas.

How do you engage with researchers at the start of their employment with you?
New staff members are assigned a buddy from the School to show them how the system works and help them out. I also get one of my own team to look after them after they have been introduced to my research group. I’ll set out what is expected from them in terms of the aims and objectives of the research project they are employed on, and what outputs we want. I’m always looking for people who are enthusiastic, who can think on their feet, quickly and clearly, come up with ideas and work independently, but with some guidance. If they are straight out of their PhD, have they already published papers in good journals, or presented at conferences? For more senior people, have they been asked to organise sessions at conferences, perhaps given a keynote address, or contributed to books? I’m either looking for somebody who has that profile already or who has the potential to develop it in a few years’ time.

What kind of ongoing support and management do you offer?
Once every two weeks I have meetings with all my researchers, but I obviously see them informally as well. It is important that I always make time for them and have a good relationship. I always introduce members of my team to people I know outside the University. They are encouraged to go on courses and attend conferences. If there is a major one I can’t get to I will delegate one of my staff members
to go on my behalf, so they have that experience. I also get senior people to help junior members of the group or PhD students; for example, with writing a research paper which can at first be difficult to structure.

**How do you encourage and support the career development of researchers?**

When we do the Performance Development Review every year I say to them that research staff are supposed to produce a five-year plan. We think about all the things that are needed to get on in academia. I get appropriate people to apply for school, faculty and external fellowships. With students who have struggled through their PhD, I am always conscious that it wouldn’t necessarily be a good thing for them to stay on as research staff. Not everyone wants to be an academic and after a few years they may decide they want to do something else. Others may not want academic careers because they don’t want that level of responsibility. If they are thinking of moving on I will help them by writing references, or suggest groups that they might want to think about working with. One of my PhD students got a postdoc position with the National Centre for Atmospheric Research in the US. I suggested to my most senior researcher that he go on the University’s PI Development Programme because he wants to start writing his own research proposals. A lot of my team have been with me for a long time now, so I write proposals and try to find money to keep them on, or where appropriate encourage them to apply for promotion. When opportunities for academic positions arise we will look at the people we already have rather than always looking externally.

**Are there any other experiences, or pitfalls, you would like to share with new PIs?**

At present I work only three days a week because I have two children aged five and three. So the way I tend to work is to have different research associates manage parts of projects, or manage our collaborations with certain groups around the world. This includes places such as Australia, Pakistan, the Himalayan regions and Europe. I also encourage my team to get involved in other kinds of activities as well, like public engagement with schools. People have chaired sixth form debating competitions and other things that provide good experience. Media engagement is important, too, particularly when I’m not around, as we get a lot of enquiries. My most senior researcher has been on the media training course at the University. It is important that you get training if you are going to do these sorts of things, otherwise it can be very difficult.
‘Often we have postdocs who are very good researchers that we keep on for too long, and this can lead to a mutual dependency that in the long term does not benefit you or the researcher. It can be helpful to discuss alternative pathways with researchers in this position…’

What is your main area of research?
Some of the main catalysts that make the world go round are micro-organisms. I am interested in biogeochemical processes: how micro-organisms are involved in the decomposition and cycling of carbon, nitrogen and sulphur for example, keeping the environment and indeed the planet in balance. What those different organisms are, the processes they catalyse that keep the world running and the factors that affect how well they carry out these processes ultimately feed in to the whole Earth system on a large scale. In the most general sense we seek to understand how (micro)biology drives the planet.

How do you engage with researchers at the start of their employment with you?
This starts before they join the group, with recruitment. One way to ensure that you build a successful happy team is to recruit good people with the right character traits. When new people join the lab I like to sit down and discuss the project ongoing in the lab and my goals. As part of these discussions I try to tease out what their aspirations are. I will explain our common goals and emphasise the importance of key activities for building a successful career, such as publishing research papers, something which is vital for the project leader and individual lab researchers alike. In most projects there will be a costed plan for disseminating research findings, including attendance at key conferences, and we discuss the opportunities for participation in international conferences and the opportunities this offers for career development.

What kind of ongoing support and management do you offer?
I try hard to give constructive feedback, to identify issues and get them to think about the quality of what they are doing.
It’s almost the basics of good science, but when they publish papers we pay a lot of attention to presentation. This involves thinking about how they are going to explain what they have found in an unambiguous way. We offer support and encouragement by asking them to provide drafts, and detailed feedback and advice on how best to structure a paper. The foundation for an independent research career is quality publications. We also get new starters to think about applying for fellowships and securing funding in their own right. Our researchers are also made aware of training available from the University for help with writing papers and grant proposals.

**How do you encourage and support the career development of researchers?**

We are always looking for opportunities that will allow us to keep the best people. But you can’t be selfish about people’s career choices. If someone says they are going to apply for a position elsewhere and it may leave you in the lurch, you have to be a decent human being and say yes, go for it. More than that, you need to actively support them.

While the School doesn’t have much discretionary money, it does run a school fellowship scheme to support ambitious young researchers. This provides for a month of time that can be used flexibly, eg for developing new research links or preparing a grant proposal or bridging between projects. It also provides a small amount of discretionary funds for travel or purchase of resources to provide some preliminary data in support of a proposal. This is also a useful addition to a researcher’s CV as it offers independent recognition that they are regarded as someone who has high potential to develop an independent career. We encourage researchers to apply for this and it has been so successful at School level (most of our School fellows have gone on to secure research funding independently), that a similar scheme has now been adopted by SAgE Faculty. The Dean of Research and the Faculty research support team have negotiated with some of the research councils and they now recognise Faculty fellows by making them eligible for PI status on grant proposals. This is a significant contribution to developing as an independent researcher.

Nevertheless, we have to recognise that some are probably not going to make it as independent researchers. In that case, you have to manage expectations. Often we have postdocs who are very good researchers that we keep on for too long, and this can lead to a mutual dependency that in the long term does not benefit you or the researcher. After a number of research positions some people begin to ask
where their scientific career going? It can be helpful to discuss alternative pathways with researchers in this position. I have personal experience of researchers who found opportunities in science administration, which was facilitated by spending some time shadowing administrators in the School office to gain experience, something that was possible by allowing the researchers a sensible degree of flexibility about how they spent their time during their research project.

Are there any other experiences, or pitfalls, you would like to share with new PIs?

Treating people well and having a good dialogue and interaction with individuals – making sure you are doing things of mutual benefit – is important. Give them time to develop things for themselves and be supportive of their career aspirations. Listen to them and try to give them good advice, even if sometimes the advice is not easy to deliver. You may have to help them realise that if they don’t take opportunities they could end up ultimately reaching a dead end in their research career, rather than moving forward. I have been in that position with good researchers on more than one occasion. You find yourself in a position where a researcher in your group is on their third or fourth postdoc contract. It is great at the time because you have access to their skills and expertise for an extended period of time and you know you are getting quality research from them. While it is easy to let people do that and let yourself exploit them, they are to some extent also exploiting you. The researcher gains a degree of employment stability but it can mean that they do not take the steps to independence, which are not easy, but are usually necessary to sustain a long-term career in science.
What is your main area of research?
All the work we do has some connection to nutrition, but we are particularly interested in health outcomes. Two big areas we tackle are bowel cancer, which is a common age-related disease, and ageing itself. We are interested in what drives ageing, how that can be changed by nutrition and also physical activity, and the mechanisms through which all that happens.

How do you engage with researchers at the start of their employment with you?
This starts with recruitment, making sure you have the right kind of people in your team. I pay particular attention to how we draft adverts to attract good people, and I try to engage with enquiries. At interviews we are very clear about what it is people will be letting themselves in for, giving them the big picture about a project and what their role will be within it. The expectations tend to gradually emerge during the first few weeks. Alongside a formal induction process, I ensure they get to know the other people around them and encourage them to become team players. I try to achieve more than the minimum and to do that you have to get more from interactions between people. You never know what ideas you are going to spark off by connecting people; by making sure they feel welcome and fit in.

What kind of ongoing support and management do you offer?
We have formal review meetings, often as frequent as every couple of weeks. More informally, I also have what is known in the office as my daily round, where I chat with people to see how things are going. You often pick up things at that stage before they become an issue. During the formal meetings team members drive the agenda, bringing along the things they plan to cover. At the end I will bring in things that maybe they have forgotten to mention or didn’t want to discuss. We all have enormous pressures on us, with far too many things to do, so it is easy to dump stuff on somebody else. The trick in dealing with that kind of issue
is to give somebody a job – let’s say looking after an undergraduate in the lab – in a way that is not a burden to your postdoc or PhD student. However, giving them this sort of responsibility benefits them while helping you out. They get something out of it as well.

**How do you encourage and support the career development of researchers?**

There isn’t a single clear path for many researchers, so there is a kind of gradual process of me getting to know them and learning about their aspirations. Performance and development reviews should be taken seriously; they are the one time in the year when you can spend time with somebody to range over issues which are nothing to do with the day job. I will work with a researcher to identify the next career step they may need to take. I encourage them to develop something which is uniquely theirs – the extras that will make a difference and make their CV look better; identifying gaps, such as writing more research papers, and improving presentation and dissemination. These things are mutually beneficial. I introduce team members to the networks from which I benefit enormously. And I ensure they have enough money to travel to conferences, sometimes representing me. While I will point them towards opportunities, it is important for an individual to take responsibility for his or her career. I had a series of events for members of my team looking at outreach and dissemination of their work. A more senior postdoc would run each one, bringing in PhD students and others. They took responsibility for those events and this gave them something different to put on their CV.

**Are there any other experiences, or pitfalls, you would like to share with new PIs?**

I encourage my people to be ambitious. One of the challenges for a PI is to recognise what a person really wants out of life, what will motivate them to get it, and then to help them achieve that. It is important for the PI to be a leader: taking sometimes tough decisions; being discreet, so that private matters they come to discuss with me won’t go any further. Another thing is to treat people equitably. Valuing and enabling them in this way is really important. Every PI will have difficulties with team members, with one thing or another. So it is also important to recognise that you are not alone, and where appropriate you should take a problem to a colleague who can help you with it. Sharing things like that, in a confidential way, can help to deal with what are often tricky issues. When I have a problem I don’t like to rush a solution. To get the right answer I try to find out more about the context of an issue, and look at what the options are in discussion with someone else. None of us have all the answers, so talking with others can be very valuable.
What is your main area of research?

My core research work is around maternal and infant health and I have a particular research interest in congenital anomalies, more commonly known as birth defects. I lead a regional register of congenital anomalies and collaborate widely with researchers in the UK and Europe.

How do you engage with researchers at the start of their employment with you?

When a new researcher starts with me I try to spend time during the first couple of weeks helping them get to know the research team they will be working with, and meeting key people within the institute. We have an induction process for new starters and an induction pack explaining what the institute is about, setting out our strategic aims etc. They are encouraged to have a ‘buddy’, usually somebody at an equivalent stage in their career, who will spend about two weeks with them, showing them around. I spend time explaining the work they will be doing, what is expected of them in their role, the major project milestones, making sure they have any relevant literature, and discuss any opportunities they might like to pursue. I also alert them to our research seminar series and discussion forums. The institute has recently set up an Early Career Researcher’s Association which meets every other month and is proving successful in providing peer support.

What kind of ongoing support and management do you offer?

As an institute we have an ethos and culture around supporting all staff, in particular, our early career researchers. We have worked very hard over the last 15 years at developing this culture, and we are trying continually to enhance the support. This includes being flexible over the percentage of time a researcher wants to work, provided

Professor Judith Rankin

Job title: Professor of Maternal and Perinatal Epidemiology at the Institute of Health and Society.

‘I urge all the researchers to continually build their CVs and keep an eye open for opportunities. Where appropriate, I like to bring them into the networks in which I am involved, meeting other researchers within the UK and throughout Europe.’
Supporting and Managing the Development of your Research Staff: PI Case Studies

this can be accommodated within the needs of a project. As well as regular project meetings, I have one-to-one meetings on a monthly basis, where individuals can bring up anything of concern, and we have regular team meetings. Instead of PIs having their own research budgets, within the institute we pool non-allocated resources which enable us to: have a training pot which can be used for personal or professional development; bridge research staff for a short period when they are coming to the end of a contract and waiting to hear about new opportunities; have a resource for attending conferences and meetings; support open access publishing. I always include researchers’ names on papers where they meet authorship guidelines and encourage them to take the lead on papers where appropriate, as publications are very important for their CVs.

How do you encourage and support the career development of researchers?

In 2011 our institute was awarded an Athena Swan Silver Award. This award promotes and recognises a commitment to advancing women’s careers in science, technology, engineering, medicine and mathematics. I urge all the researchers to continually build their CVs and keep an eye open for opportunities. Where appropriate, I like to bring them into the networks in which I am involved, meeting other researchers within the UK and throughout Europe. If they are at the right stage in their career, I encourage them to think about the fellowship route, if that is where they want to go. I support them, even quite early on, to go for small pots of money for projects in which they can act as PI.

Are there any other experiences, or pitfalls, you would like to share with new PIs?

While hard work is essential, as a mother of three children I know how important it is to try to maintain a work-life balance. While clearly my priority as a PI has to be delivering on projects, within that it is still possible to keep people informed about opportunities. With some people, however, it may involve having an honest conversation at some point, about whether or not they are cut out for a research career. That can be a difficult conversation to have, but it is better to be realistic.
**Professor Michael Trenell**

*Job title:* Professor of Physical Activity and Exercise Research; Director of MoveLab; NIHR Senior Research Fellow.

‘The University has a fantastic series of staff development courses. Having done them myself, I’m nearly evangelical about pushing people towards them.

Open and frank conversations around what is and is not working, and a shared vision of where they are going – an open and delicate dialogue – is essential.’

**What is your main area of research?**

Investigating how lifestyle helps people live longer, happier lives, but also how lifestyle can provide an effective therapy for the management of chronic disease, conditions from Type 2 diabetes through to dementia, stroke and cardiovascular disease.

**How do you engage with researchers at the start of their employment with you?**

The first thing I like to do is understand from them what they want out of a position. From there you can see where they can fit into the team. You try to develop them, whether that be around learning new skills or perhaps meeting different people. By doing this you get a more meaningful contribution to the team. There will be somebody with whom they will be buddied within the team and I ask them to spend quite a bit of time with me at the start. I usually start by explaining our vision; why we are doing certain things and where we are trying to get to; being clear about where we want to be in six, 12 or 24 months’ time. It is important for me to set the tone, but also to enable researchers to think independently. Our environment encourages independence and ownership of projects, although that can be daunting at first, if you are not used to being given autonomy.

**What kind of ongoing support and management do you offer?**

We have informal conversations as we go along; where people are going, how we are helping them to get there. Motivation and encouragement is really important. So is reminding them that it is normal for things not to go right sometimes, that this is not inherently wrong and that it can be fine to have mistakes as long as they learn from them. Part of my job is to catch people before they make a big mistake. Another thing I do is
to introduce members of the team to other people, to enable them to have dialogues outside the group, outside the University and outside the UK. One of the ways our team is going to grow is by postdoc researchers and PhD students moving up to the next level. Some of the most innovative things come from random introductions to people from different disciplines. Having exposure to others at different levels is very important.

**How do you encourage and support the career development of researchers?**

The University has a fantastic series of staff development courses. Having done them myself, I’m nearly evangelical about pushing people towards them. They should embrace this training; it is free but very valuable. We look strategically at how we can support individuals in their personal and professional development. In effect, what we are trying to do is to support somebody to the point where they don’t need you any more. This involves encouraging them to set up projects and become completely independent. The greatest mark of success is for somebody to be running their own group. It is an important part of the development process and involves a lot of trust between the PI and a researcher. Open and frank conversations around what is and is not working, and a shared vision of where they are going – an open and delicate dialogue – is essential.

**Are there any other experiences, or pitfalls, you would like to share with new PIs?**

Finding a synergy that enables you to work independently can be powerful, but it can also be disruptive if you get it wrong. So to avoid confrontation try to create an area which is complementary, or work out a niche that suits an individual while fitting in with the skills and vision of the people around them. The two things, of course, which accelerate an academic career are research papers and funding. However, these tend to be the things that are away from the core of a day-to-day to-do list. There are so many competing things that it is very easy to take your eye off the ball, where papers and funding are concerned. Balancing things out can be very difficult. One of the most motivating things about the position I hold is to see younger academics grow and eventually become independent of me. It is rewarding to sit with somebody who three years ago had no idea about a topic, who later comes back to correct me on a topic I taught them on! One of the reasons I do this job is that if I am able to train 10, 20 or more fantastic scientists, the impact of that collective group will be far more than I will ever be able to do on my own. That involves dropping a little bit of the ego, but it is worth doing.
Professor Tom Curtis

Job title: Professor of Environmental Engineering, School of Civil Engineering and Geosciences.

‘What I try to get is a sort of family atmosphere, so I want people who will come in and be part of the team.

As a PhD student, I was never really sure how well I was doing, so I try to provide positive feedback.’

What is your main area of research?
I work on the biological treatment of water and, mostly, wastewaters. This involves a synthesis of engineering and microbiology; the interface between the two. A lot of the problems in wastewater treatment are related to very fundamental scientific questions, so I am able to tackle both. I have to work with a broad range of people from mathematicians and process engineers through to microbiologists.

How do you engage with researchers at the start of their employment with you?
On the first day, I’ll try to spend a lot of time with them; we’ll wander round and I’ll introduce them to as many people as possible. Often this is a process of finding out what kind of person they are, then managing them appropriately. I like enthusiasm and the ability to think for themselves. I don’t like people who interact badly. What I try to get is a sort of family atmosphere, so I want people who will come in and be part of the team. I’m a big fan of planning, but what they hear from me is: plans are useless but planning is invaluable. And when it doesn’t work my motto is: no plan survives first contact with the enemy. So I get them to plan ahead and take things from there.

What kind of ongoing support and management do you offer?
As a PhD student, I was never really sure how well I was doing, so I try to provide positive feedback. My research associates tell me they can distinguish between when I’m disappointed and when I’m pleased, but I don’t do that consciously. Generally, I’ve found that everybody I’ve worked with has skills that we can use. Sometimes, however, you have to tell them to stop beating their heads against a brick
wall and point out that they should try something else. One of my frustrations is that they don’t always have the confidence to exploit my networks and get out to see the people with whom we collaborate. But I have one RA who likes Latin America, so I will make sure, when we have work there, to ask him if he would like to go out there to do it. He will invariably say yes.

**How do you encourage and support the career development of researchers?**

One of the most important things I can do is to get them to publish research papers. This can be a brutal business, so I explain that numbers don’t matter. Another of my mottos is: you can never compete by volume, you compete with quality. You can make a name for yourself with one or two good papers that change the way people think, not by having 10 identikit ones. I also tell them it is a good thing to move on. We have a lot of good things at this University, but there are some mistakes we are making. Moving on to another institution, even for a few months, gives you a different perspective. I’ve got an RA who is talented that I’m trying to point towards a lab at the École polytechnique fédérale de Lausanne, where I think he might do well. It will be a good career move for him to spend a couple of years there. One of the challenges for me, and about which I am very concerned, is ensuring people get recognition for the things they do. I encourage them to make their own bids for funding. When you are in an established position like me, if there is conflict over whose name should go on a grant application or REF paper, it is my job to take a back seat and let a junior person gain recognition.

**Are there any other experiences, or pitfalls, you would like to share with new PIs?**

The best way to achieve success is with others. But you won’t get the best out of people unless it comes from within them. The reason you encourage independence is that if they are thinking about a problem for four days a week and you can spend only 40 minutes, they are probably going to have more ideas than you. And you have to make sure they have the confidence to act on those ideas. If you have a dictatorial structure you are not going to get the best out of them. If you get the recruitment process right and employ good people, they don’t need much managing. The more tricky thing is with people who don’t have that ‘extra bit’ or lack confidence, and they are unlikely to move on to an academic position. Managing their careers is important to enable them to fulfil their potential.
Professsor Andy Pike

**Job title:** Professor of Local and Regional Development and Director of the Centre for Urban and Regional Development Studies (CURDS).

**What is your main area of research?**
I started life as an economic geographer and my research interests have evolved broadly towards the political economy of local and regional government. There are three strands: trying to understand how geographical dimensions are important in creating meaning and value in brands; the political economy of economic development institutions; and the funding of infrastructure. We also have a current project for the Rowntree Foundation studying declining cities and urban shrinkage.

**How do you engage with researchers at the start of their employment with you?**
Openness, transparency and honesty are important. People know when they come to CURDS that it has a welcoming, warm, supportive environment in which they can work. The recruitment process is well oiled and PIs have a lot of discretion over selection. They are the best ones to choose the people with whom they want to work, and will specify the type of person they are looking for. However, researchers are brought in to work on specific projects, with no expectation their employment will continue beyond the life of a project. But we have a series of formal review processes that look into their future career development.

**What kind of ongoing support and management do you offer?**
There is a probationary process for the first six months. We place great emphasis on the vibrancy and dynamism of the research culture within the Centre. There are a number of mechanisms for maintaining that culture. For example, we have internal seminars where researchers of all kinds, looking for ideas and feedback, are encouraged to present their work in an informal environment. External seminars bring in well-known people from outside with whom we can engage. Every couple of months we also have a series of research meetings during which we encourage short interventions from researchers. This provides a supportive forum to feed
into their ideas and their development as independent researchers. Our culture is fundamental to what we do and we like to think we are doing something right. The test of it, I suppose, is that you have characters like myself who have been here for 20 years, so we have obviously found it a comfortable place to pursue the kind of research we want to do.

How do you encourage and support the career development of researchers?

We have an inclusive approach that enables researchers to see how the work they are doing fits into the delivery of overall objectives. We respect and acknowledge that contract research leads in different directions, and along career tracks which might not be easy. This could involve moving between institutions and places, or they could succeed in finding a stepping stone to teaching and lecturing. In CURDS we have the first professor in Newcastle, Mike Coombes, who began work as a contract researcher. There is a structured and very detailed formal review process, the PDR, which now functions healthily. One of the important things is that it focuses on how a researcher is building their CV and developing a track record. It looks at such things as how well they are getting involved in sole and joint publication of research papers; how many conferences they have presented at; the training they are undertaking; and what are their plans for the next year.

Are there any other experiences, or pitfalls, you would like to share with new PIs?

One of the things we try to have is a very clear intellectual and research agenda. We don’t go chasing small grants just to bring in some money to keep someone in a job, so people know where they stand in this respect. We are trying to mark out territory which we feel is going to be interesting and valuable for research. Rather than chasing after small projects we would prefer to get larger amounts of what we would call blue-chip money, from a prestigious funder, and do a proper focused piece of work. This allows room to do the ‘impact’ activities we are meant to be doing as well, such as engaging with parliamentary Select Committees and major national and international bodies. CURDS has been around for about 40 years. It is unusual as a university research centre in having lasted that long, in the changing funding context we have experienced. Within the Centre we have a decentralised structure, where a lot of the emphasis and trust is put in the hands of PIs. The key thing is for us to be vigilant that our more informal method of transmitting the knowledge and experience of PIs down to the researchers is maintaining the culture of CURDS.
‘One thing we always try to do is to stretch people. We expose them to experiences that will stand them in good stead and hopefully help them develop their skills. We make good use of training courses provided by the University, such as teaching people how to become PIs. I also offer opportunities to researchers that will enable them to pursue their career ambitions.’

What is your main area of research?
We use digital technologies to transform people’s research, wherever they are in the university. A lot of this is to do with the vast amounts of data that people are collecting nowadays, in every sort of research field – in genetics, for example, or through sensors monitoring pollution, or systems in cars. The hard thing is to extract useful information from all the data that is collected, which is something in which we have a great deal of experience.

How do you engage with researchers at the start of their employment with you?
When recruiting someone there are three things to think about: what are the skills of the person you have recruited; what are the needs of the project; and finally, what does the researcher actually want to do? The better these three things overlap, the greater the overall benefits. However, flexibility is required as your chances of finding someone with exactly the right skills and interests is very limited. So after recruitment there is continuing discussion to ensure they meet the expectations of a project whilst developing their career.

What kind of ongoing support and management do you offer?
One thing we always try to do is to stretch people. We expose them to experiences that will stand them in good stead and hopefully help them develop their skills. There are opportunities to present their work at meetings and conferences, where they also represent their research group. In addition, they will be asked to do things that are not narrowly within their own area of work, such as helping to write grant applications and contributing to research papers. While in many cases they will gain in confidence and skill, becoming
independent, there is a lot of peer group support and day-to-day interaction offering help and advice where needed. We have a weekly group meeting where everybody gets a chance to talk about what they have been doing, and where someone will give a more formal sort of presentation. And if possible I talk individually with researchers at least once a month as well as doing PDRs with everybody in the group.

How do you encourage and support the career development of researchers?

We make good use of training courses provided by the University, such as teaching people how to become PIs. I also offer opportunities to researchers that will enable them to pursue their career ambitions. For example, we collaborate a great deal with companies like Microsoft, and Red Hat based in Raleigh, North Carolina. For someone who wants to work with industry, we will attempt to give them the chance to visit companies, to give presentations or become involved in projects with them. We do exactly the same thing for those who want to pursue an academic career, providing opportunities to meet other academics or visit universities with whom we collaborate in the UK and overseas. We are trying to ensure they go on to do something as close as possible to what they want to do, because I see this as a positive outcome. A lot of my contacts in Microsoft, Red Hat and other universities are with people who have been through the system here. I think that is really important.

Are there any other experiences, or pitfalls, you would like to share with new PIs?

One of the main pitfalls is inertia. What some people would really like to do is to continue on a particular line of work. But you may have funding for a project which can use their skills in a different area. Therefore, you have to find a way to encourage people to transfer what they know into something different. Another thing we do is to apply what is known in computing as the agile model, to adjust for change. At the beginning of every project we usually have a ‘kick-off’ event, where we go back through what we put in the proposal some months before. We step back and think, perhaps things have changed and new ideas have emerged since we wrote the proposal. And at a very early stage we think about how we can design the project so it will have an impact in the outside world. That forces you to think in a different way. This involves trying out different approaches to see how they work. I have found pitfalls when you do not find a methodology that satisfies both researchers and your collaborators. It is important to have the ability to adjust what you do and to be agile. Perhaps if someone appears on the scene with a different set of skills, you may need to find a way to use those skills and do something differently.