Wellcome Town Hall Q&A University of Cambridge 29th April 2022

Please note that the <u>recording</u> timestamps are provided for each question.

What are the expectations concerning permanent posts for Career Development Awards (19:35)?

Michael Dunn (Wellcome, Director of Discovery Research): Not a new problem and is part of the cultural aspect of Wellcome funding to encourage change in the system. Not good enough to say that people need to live from grant to grant, but also realise it's not straightforward for institutions to just try and find jobs for everyone. What we are asking is for institutions/departments to sit down and have conversations with Career Development fellows throughout their award to figure out what's best for them, where might they end up, and if it's not with the University of Cambridge, what support or what advice can be provided to help them have a better landing outside of the University. We really want Universities to take the responsibility of mentoring Career Development Fellows seriously. There is not an expectation that fellows have a job with the University at the end of 8 years, but that there is a proper review process.

How are the schemes changed due to the pandemic and war (26:20)?

Michael Dunn: The pandemic has affected researchers very significantly and we recognise that. Wellcome itself during the last 2 years spent something in the region of £77m to people trying to end their grants or who have had clinical trials disrupted. We are really encouraging people to let us know how they've been affected, and we are also providing guidance to panels and reviewers to make sure we can calibrate for that. In terms of the war, like everyone else we are terribly concerned and thinking about what Wellcome can do to help and how we can provide support to academics and researchers.

Cheryl Moore (Wellcome, Director of Research Programmes): We're supporting a group called <u>CARA</u> which is helping displaced researchers more broadly in Ukraine and other regions affected by turmoil, to help them establish themselves in new locations. It's a challenging and scary time for many and we're hoping this will help as CARA's developing their programmes.

Are you planning on offering calls for centres anytime soon (28:35)?

Michael Dunn: The challenge areas will focus their activities in different ways, some will invest in hubs/centres. For discovery, there will be fundamental problems where targeted investment will be important.

Gordon Dougan (Wellcome, Director of Infectious Disease): What we would like to do is take scientific ideas from discovery through to impact, so we need a different combination of entities to do that. We also need to reach those who are most affected, and often this is in low- or middle-income countries. If we feel we need a collection of individuals to drive

something forward we would create a hub, often within a low- or middle-income country because they don't have the infrastructure, and are often operating under duress and without career structure. We need to bake all of this into our challenge areas if we want to successfully have impact.

Michael Dunn: We don't plan to have an open call for centres. Centres will be focussed on a particular challenge or target area.

Is there still a funding route for activities to support library and information professionals to develop infrastructure to support research (32:24)?

Michael Dunn: Those open mode schemes have stopped but through directed activities going forward we plan to have routes in for supporting some of those really important underpinning infrastructures and capabilities. This is a work in progress, so not much to say at this point.

Given the breadth of sciences encouraged in the new strategy, how will the critical peer review be balanced between the fields, and well-qualified reviewers identified (33:30)?

Michael Dunn: Getting the right advice is very critical, so we put an inordinate amount of time into thinking about the kinds of reviewers we need. We want to make sure we have the right balance and mindset, and more broadly we're trying to diversify the advice that we're getting. Part of the plan is to advertise more openly for reviewers to make sure we have the right breadth and mix. We will be advertising for reviewers for both our shortlisting panels and our interview panels as well.

What is Wellcome's strategy going to be for supporting PhD students (35:19)?

Michael Dunn: We have just begun funding for the latest crop of clinical PhDs and we're committed to our clinical PhD funding going forward. That's an area where we see a real need and where Wellcome can play a catalytic role. In terms of basic biology PhDs, this is an area where there's been a bit of controversy in terms of Wellcome's position. When we carried out a review in 2018/19, it showed that Wellcome was supporting 3% of UK PhDs. It isn't a huge number in the grand scheme of things, and in terms of being catalytic, what Wellcome had done previously in changing the landscape for 4-year PhD programmes was successful, other funders have then stepped in and taken over and actually now 4-year programmes are the norm. It's not to say we will never fund PhD programmes again, but it's about where we feel we can really make a difference, rather than just adding to the already large number of PhD programmes in the UK. All of the three Discovery schemes you can apply for PhD studentships as part of those grants.

Alan Dangour (Wellcome, Director of Climate and Health): For Climate and Health, as it's a new area of transdisciplinary research, we have yet to decide if we will have PhD programmes but it may be the case that we will, because we are trying to generate a new cohort of researchers, and you could therefore have significant impact in building the research field by having a PhD programme.

Gordon Dougan: One of the barriers to supporting PhDs in the challenge areas is the cost of overseas fees. If you have a low- or middle-income student who is disadvantaged and asked to pay more money than a UK candidate, that is a disadvantage. Our aim is that we need to support more activities in settings where we want to have impact. That changes the way you think about the delivery of your science if you have that as your goal, and that includes PhD students. I'm very keen to support PhD students in disadvantaged settings if that will build capability in those settings to sustain good science and to then sustain the delivery of affordable interventions.

How will the intention to embed diversity and inclusivity and research culture into new grant schemes be supported? Will there be dedicated funding and assessment for these work streams alongside the research focuses (39:02)?

Michael Dunn: We are very committed to this. Part of it is asking people to tell us in their applications what their plans are for diversity and inclusion and what plans their institutions have to support that as well. We've been through some rounds of this now and actually it has changed the dynamics in terms of the panel, what people are asking and the outcome of the assessment because we have a weighting based on those aspects. In the long run, we are also enabling people to ask for dedicated resources to support this going forward. Up to ten days' worth of CPD can be requested as part of the grant with the idea that they can build up and do extra training to create the right environments. We're in the very early stages of learning what 'good' looks like. Sometimes we're seeing boilerplate answers from Universities as to how diversity and inclusion might be thought about, but what we're trying to do is build up a body of knowledge where we can better flesh out good examples of how to support groups and the careers of those in your team.

Cheryl Moore: For us going forward, we will be exploring new ways of working, and whatever we do in this area will be embedded into our programmes more broadly. We'll also be working with those we partner more closely with because we want to go on this journey together. We'll learn from those partners, but we'll also be pushing those partners because we all need to do better. This is a key focus we'll be exploring with new ways of funding and we'll be asking a lot of questions to figure out how we can truly help. We all have to push each other.

How will Wellcome fund public engagement in the future (42:15)?

Michael Dunn: Unlike our previous strategies where we had an open public engagement strand, we're very much focussing public engagement activities on our challenge areas. Clearly if a research proposal needs to have public engagement (i.e. you're working on the genetics of a particular disease and you need a good programme of support and outreach that enables you to engage that patient population), that's the kind of public engagement you can request on the discovery grants, but other than that the public engagement is going to be very much more focussed on the kinds of issues that the challenge areas are going to be dealing with.

Does Wellcome have any plans to try to work more with private individuals, as well as departmental, research and health organisations (43:15)?

Michael Dunn: Partnership more broadly is something we've always been very enthusiastic about, because the big challenges in the world require big thinking and a lot of money. Wellcome is a pretty rich organisation (the endowment currently stands at around £35b), but joining forces with other organisations and people where there is alignment both in terms of mission, but also in terms of the other things we care about, like diversity and inclusion and good research culture... It would really be based on if there is alignment in terms of mission.

Cheryl Moore: As part of our new strategy, we have a particular team that is focussed on partnerships. So working with other philanthropists but also working with other funders, governments, etc to advance the agenda. Because we can't do it by ourselves, so absolutely we'll be working with others.

Gordon Dougan: There are other areas we do a lot of interaction with; one is industry, and many industries have had to refocus a little bit post-Covid and through the policy side we do a lot of work with governments and Departments of Health to try to influence and shape. We will take on any ethical mechanism we can to make an impact. Partnerships are going to be fundamental to everything we do in the challenge areas, whether it's another funder or a private individual, such as Gates, who we've engaged with on many levels.

Will you fund replication research (45:55)?

Michael Dunn: It's not part of the current plans. I mean it is a very important area, as you say. Within our Research Programmes Team, we have a team led by Dan O'Connor, who is focussed very much on the Research Environment. This is related to good quality research and what does that look like, and can we do anything to make sure we have research that is reproducible and real and valid. But in terms of our discovery schemes, we're not planning to support studies just focussed on reproducibility. We would hope that a proposal is rigorous enough, and for example in the world of genetics you always have to do replication to believe the outputs, but I think we would have to take that on a case-by-case basis. It's certainly not a policy we have.

What is Wellcome's view on the role of model organisms in basic discovery research going forward? What is the strategy on supporting the development of new antibiotics (48:04)?

Michael Dunn: Model organisms remain very important, whether it be flies, mice or even plants in terms of understanding human biology. I don't see that being any different. We now have this great opportunity that we have a tractable model organism in the human. And now we ought to be also thinking about how we develop our research to make sure it is really relevant in the human system. The age of models remains open through our discovery schemes, but also in the health challenges, for example thinking about how you link basic mice brain biology through to human mental health experience.

Gordon Dougan: A lot of the interest in antibiotics is being driven by resistance. Wellcome has played a key role by forming our new report on resistance and also driving forward the

awareness of antibiotics resistance and also resistance in parasites and viruses. To have an impact we need new antibiotics and we need to consider resistance right at the beginning of the process, but also affordability and access. Wellcome has the ability to influence in a really significant way above and beyond the science and the field of antibiotics is very very much on the radar of the infection challenge area, and we need to be very smart about how we do it.

Does the Wellcome envisage a succession to things like collaborative awards or strategic awards going forward, and if they do then what is the perspective on international partners within that kind of process (50:52)?

Michael Dunn: The Discovery Award strand covers what we would have described as the old Collaborative Awards. The difference is they're potentially bigger than the old Collaborative Awards and they're very much open to international partners. As long as they're led by a UK or LMIC applicant, they can have other applicants from anywhere in the world, and again up to 8 years and cut your cloth as to what you need. Some of the applications we're seeing are pretty bold and pretty big so that's definitely an opportunity. I think a lot of things that came through the old Strategic Awards we would definitely see the Discovery Awards as a successor to that.

Do you think that the three challenge areas could benefit from a broader approach in terms of the sorts of applications you might consider (you're saying targeted, some might say prescriptive) (52:14)?

Cheryl Moore: In the health challenge areas, we're taking very much a portfolio view. So we're looking at what we're trying to achieve specifically, and then saying where are the gaps and what is the best funding mechanism to achieve that, what is the best downstream approach to achieve that, again all the way through the basic science through to uptake and influence. So it is more targeted in the health challenge areas, but that doesn't mean there is not a research component that may need an open call for a particular issue, but it would be more around a narrower focus with different ideas coming in.

Gordon Dougan: If you're going to have impact you have to have some focus. We don't have all of the bright ideas and we're going to be very flexible about the way we might try to gain impact. So in any conversations we will have with you, feel free to bring these ideas to the team. We're not locked into a set way of thinking about things at the moment, except that we would like to have impact.

Michael Dunn: It's also the reason why we've said for our Discovery Schemes that we're not limiting infectious disease research in the discovery schemes just to the areas that are being looked at in the challenge area. It's much broader so that we can bring that wider perspective, because we know there will be things coming out in that wider perspective that will be relevant to the sorts of work that Gordon's doing.

Gordon Dougan: You note that we haven't talked about specific pathogens, because we know in the infection it is very dynamic. You have to remember that all parts of development of a process to an impact, require excellence science. It's not just in the discovery areas where we need excellence science, we need excellence science in

manufacturing. Can we get better innovation of that manufacturing to make processes more affordable and more accessible? I think the alternative answer to your question is, don't limit yourselves by the categorisation. Myself and Alan look very closely at the interactions between climate and infection, which is a new area and new data. When we look at data, we're very good at doing genomics data, but we're not so good at bringing genomics data together with climate data. That's where we need innovation, and we want to stimulate that innovation.

Alan Dangour: I would just add that certainly in climate and health, the ambition, the strategy, the focus, is to get some action on climate change using health evidence. So in order to do that, we want to know the burden of climate change on health, we want to know how to adapt in a way that protects health, and how to use health evidence to mitigate, to drive forward. So we have a very clear focus that that's the impact we want, and in order to do that we're going to fund a lot of research in those three buckets, and build the field. But if you want to do something on climate and health that doesn't fit into that, the Discovery scheme is there for you, and we would be delighted if you put some good quality proposals in on climate and health into the discovery schemes.