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Q&A Francis Collins

The bridge between lab and clinic

Francis Collins, director of the US National Institutes of Health (NIH), has made the translation of basic research to the clinic a top priority. On 7 December, that goal moved a step closer to realization when the Scientific Management Review Board (SMRB) — an NIH advisory body — voted nearly unanimously to recommend establishing a centre for translational medicine. Collins had told the review board that despite a “dizzying rate” of basic science discoveries, “far too often promising diagnostic devices and treatments are not making it to market”. He urged that the NIH step into the breach. The proposed National Center for Advancing Translational Sciences would combine several existing programmes, have a budget of at least US\$650 million and could be up and running by October 2011.

What is the significance of this vote?

This is a momentous occasion. The SMRB has recommended the formation of a new centre based on scientific arguments about opportunities in translation. I think this is a signal moment, placing the NIH in a new position to play a more muscular part in therapeutic development. That being said, it in no way discounts all of the other things that we need to be doing in basic science, nor does it say that all of [NIH-funded] clinical research is going to be folded into this enterprise.

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What do you say to concerns that the new centre will draw resources away from basic research?

I want to be very reassuring: although this centre is a new structure, it will not have much of an impact on the overall distribution of funds between basic and clinical research.

How should basic researchers regard the centre?

I think some basic scientists will be quite excited about the opportunity to be more connected with the clinical benefits of their own discoveries. Not that that's at all necessary or required, or that basic scientists who don't feel

that inclination should be considered somehow unmotivated. Science for science's sake is also a wonderful way to learn about life. But I do think there is more here that is positive than is negative for a basic scientist, if people will step back from their anxieties about budgetary considerations. That being said, we should all be anxious about the overall budget right now with the expectation that dollars for biomedical research are going to be very hard to come by in the next year or two. But that can't be a reason to stop promoting innovation.

The Clinical and Translational Science Awards, which account for nearly 40% of the budget of the National Center for Research Resources (NCRR), are being moved to the new centre. What happens to the rest of the NCRR's programmes?

Again, the strong assurance is that these programmes are valued, that they will be supported, that the people involved in them are doing great work. There is no intention here to dismantle them. But if there are opportunities to reorganize and reassign these programmes in ways that make them more interactive with what we are trying to do in this new centre, well, that seems like a good thing to consider.

What do you say to critics who contend that you're just rushing this through?

Well, I'm a guy in a hurry. I will admit it. When I contemplate the urgency of finding treatments and cures for disease, it is hard to be comfortable with an argument that says: 'go slow and take your time'. The SMRB took a comprehensive look at the situation and concluded that the scientific opportunities are here now. Why would you want to delay?

If this were easy, drug companies would not be struggling with languishing new-drug pipelines. What can the NIH do with this centre that the pharmaceutical giants aren't already doing?

It most certainly will not be easy. But there has been a recent deluge of discoveries about the molecular pathogenesis of disease. This has revealed hundreds of new potential drug targets. For rare and neglected diseases, economic considerations will limit private-sector interest; but NIH-funded researchers can explore the earlier stages in the drug-development pipeline to 'de-risk' projects that would otherwise lie untouched. Similarly, for common diseases, many of the new molecular discoveries are of uncertain value for drug development, but NIH investigators can validate these drug targets and develop promising lead compounds, as well as carrying out process engineering on the pipeline itself. The goal will be to bring each project just far enough to become of interest to the private sector to pick up. ■ [SEE WORLD VIEW P.869](#)

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