

A conversation with Kevin Moses June 7, 2013

Participants

- Kevin Moses – Director of Science Funding, Wellcome Trust
- Holden Karnofsky – Co-Founder and Co-Executive Director, GiveWell
- Cari Tuna – Co-Founder, Good Ventures
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Note: This set of notes was compiled by GiveWell and gives an overview of the major points made by Kevin Moses.

Summary

GiveWell and Good Ventures spoke with Kevin Moses as part of its initial exploration of the funder landscape in biomedical research. The main subjects of discussion were the Wellcome Trust's approach to funding research and what Dr. Moses considers promising areas for more funding to have an impact.

Wellcome's grantmaking process

Wellcome Trust grants in the neighborhood of 700 million GBP (~1 billion USD) per year. 75-80% of this goes to science research, generally in biomedical areas. Another piece goes toward technology transfer (such as gap-funding for devices or therapies in under-supported areas such as lower- and middle-income countries). Some of the remainder goes towards Medical Humanities and Engagement, which includes public engagement, funding for the art/science interface and museum support.

About 75-80% of Wellcome's grants are made to researchers in the UK; the remainder is to researchers in lower- and middle-income countries.

Wellcome's funding is quite diverse, running all the way from highly fundamental preclinical research to highly applied research (including health systems research for hospitals, research on how to run health programs in developing countries, etc.) There are ~30 different mechanisms for making grants, and five broad strategic areas, which are discussed in Wellcome's public strategic plan (<http://www.wellcome.ac.uk/About-us/Strategy/>). The fifth, "connecting environment, nutrition and health," is currently the smallest (in terms of funding allocation) and the one we're seeking most actively to expand.

Wellcome's allocation between different areas is largely responsive to what comes in from the scientific community. Speaking very generally (though different grant mechanisms work differently), the process starts with an investigator's contacting us, leading to a written proposal that goes through a committee (somewhat similar to an NIH study section). A later evaluation stage involves a ~45-minute interview with a high-level committee, and we fund the strongest proposals based on this process. Generally, both feasibility and vision – as well as the investigator's credentials – are taken into account.

Grants vary greatly in size, stage of research, stage of career, etc. The largest grant is a core grant to the WT Sanger institute, at over \$100 million per year.

Kevin Moses's thoughts on underfunded areas within biomedical research

It's risky, but important, to support young investigators to help them become more established. We have the Henry Dale award, which gives people their own salary, lab costs and one other staff member for 5 years (with the option to renew for another 3); in the last year we've made 26 of those in the UK. More funding along these lines could be highly impactful. Universities prefer to fund people with strong, established track records – helping young people get to that more mature stage is risky, and it isn't the existing system's strength.

GiveWell asks: what do you think of the hypothesis – which HHMI expressed to some degree – that one of the highest-impact sorts of research is the development of new tools whose applications cut across fields?

This sort of research can be highly impactful, and we engage in some extremely fundamental (as opposed to "applied") research as well as in highly applied research.

GiveWell asks: what do you think of the hypothesis that one of the highest-impact sorts of research is "translational research," work that is useful for turning academic insights into treatments but isn't academically prestigious?

Non-prestigious, highly applied work can be published, but researchers may often not engage in it because they are most interested in publishing in highly prestigious journals (such as Cell, Science and Nature). It's very difficult to provide alternative incentives; HHMI's Janelia Farms campus has tried to do so to some degree, but incentives to pursue traditionally prestigious things are strong.

GiveWell asks: what do you think about the hypothesis that a key variable is the process of getting funding – how fast it is, how the evaluation is done, how much collaboration is encouraged, etc.?

The process a funder uses is important. Interviews are very important - they provide a diversifying source of information relative to the written application – and Wellcome consistently interviews potential grantees. Wellcome aims for a fast grant process – it's currently at a 4-month cycle, 3x/year for our Investigator Awards, though rules vary among the many funding schemes. Furthermore, people who have already received funding in the past can apply via mechanisms that can get them more funding very quickly.

The academic system primarily supports lone investigators, working very separately from each other. At the other end of the spectrum is the corporation, which is very top-down. The middle ground – an institute with a great deal of collaboration but also freedom – is a difficult balance to strike and can be impactful. But to support such an institution, it's essential to have the right people from the start – it can't be driven by the funder's vision with the people just as implementers.

Other thoughts on high-potential approaches to biomedical research

There's much to be said for going where other funders won't or don't. That said, neuroscience is a both popular and exciting area right now. Optogenetics has a great deal of potential. New tools promise to make it much more tractable to understand the brain, which would yield enormous benefits.

On finding strong scientific advisors

The Bay Area is a very advantageous place to be. There are excellent people in both academia and biotech. Once you settle on your focus areas, you can bring together senior people in these two areas, and the two types can diversify each other and provide excellent insight.

All GiveWell conversations are available at <http://www.givewell.org/conversations>