2&3 ILLUSTRATION

The price of charity

Philanthropists should pay their fair share of research costs, says **Patrick Aebischer**.

With public funding for universities diminishing, private and philanthropic sources are increasingly being pursued to support academic research. Although welcome, this money comes with a catch: charities and foundations rarely pay the full costs of running a lab — building construction, maintenance, utility bills or salaries, for instance — and tend to be selective in the projects they sponsor. Universities therefore need to do more to pass on the true costs of research to donors. They must also have a balance of income sources to avoid bias in their research directions.

Private foundations have been significant sponsors of science since the nineteenth century. Until the US National Institutes of Health started funding extramural research in the mid-1940s, for example, more than one-quarter of US medical research was paid for by philanthropic organizations. As public funding grew, the share contributed by foundations and charities declined to less than 4% by 2007 (ref. 1).

Since then, support from non-profit organizations — especially those associated with rich individuals such as Bill Gates — has risen worldwide. In Europe, philanthropic sources now supply 6.5% of competitive research funding on average — 3–4% in most European countries and almost 10% in the United Kingdom[2]. At my own institution, the Swiss Federal Institute of Technology in Lausanne, private sponsorship has tripled, from 3% to 9% of research income over the past 10 years.

Biomedicine is benefiting most. And nowhere more so than in the United Kingdom: led by the Wellcome Trust, charities accounted for 40% of British biomedical research funding in 2009 (ref. 3).

LEGACY OF URGENCY

Private institutions, however, have a disproportionately large influence on the research landscape relative to their financial contribution. Because they can make funding decisions quickly, their money is welcomed by principal investigators looking to fill funding gaps. But directed awards can divert an entire group's research towards one end.

Keen to ensure that results are delivered and milestones met, charities' legacy of urgency has taken them away from backing long-term research projects and towards satisfying narrow goals that fit their mission. Since the boom in 'venture philanthropy' in the 1990s, the personal agendas of powerful entrepreneurs have accelerated research into AIDS; infectious diseases such as malaria and tuberculosis; cancer; and neurodegenerative diseases such as Parkinson disease.

Charities often send the message that not one cent invested is spent on anything other than finding the cures and so minimize their contributions towards a university's overhead costs. That means that institutions with many privately funded projects are effectively 'punished' for their success. To meet the higher research-infrastructure costs, universities may drain resources from education, or diminish 'expensive' disciplines such as physics, chemistry or engineering, in which philanthropic support is scarce.

Private bodies should not hijack university resources. They should contribute a fair share of the expense of a sustained research enterprise. To make it easier for them to do so, universities should better identify the full cost of research activities and pass it on. And because most charities operate internationally, these overheads should be harmonized worldwide.

FULL COSTS

Such an accounting effort is ongoing in some countries, especially the United States. But the concept of overheads is almost unknown in many European countries, where universities are largely state supported. Some European universities are addressing this issue, in response to requirements by the European granting system to supply full research costs.

Estimates of overhead costs vary by field and by country. In the United States, they typically range from 40% to 70% of grant income, depending on whether the principal investigator's salary is included. But awards are usually lower in Europe. For example, in 2008, the Swiss Parliament agreed to compensate universities with an overhead of approximately 10% of each successful project submitted to the Swiss National Science Foundation. Grants from the Seventh Framework Program and the European Research Council support a maximum overhead of 20%. This is inadequate and should rise.

Universities can do much to manage their varied funding streams. They should develop, champion and apply transparent full-cost accounting mechanisms. Leaders engaging in fund-raising should promote the inclusion of overhead costs. And academies must avoid propping up underfunded research activities with educational resources.

Ultimately, universities should not rely on short-term funding for basics such as infrastructure and faculty salaries. They need to retain a healthy level of public funding if they are to survive long term. Universities have a mission of education and of long-term, fundamental research; charities aim to solve real-world problems now. Fruitful partnership should imperil neither but achieve the noble goals of both. ■

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1. Dorsey, E. R. *et al. J. Am. Med. Assoc.* **303,** 137–143 (2010).
2. Estermann, T. & Pruvot, E. B. *Financially Sustainable Universities II: European Universities Diversifying Income Streams* (European University Association, 2011).
3. Martin, L. *All Together Now: Improving Cross-sector Collaboration in the UK Biomedical Industry* (NESTA, 2011).