

BIOMEDICINE

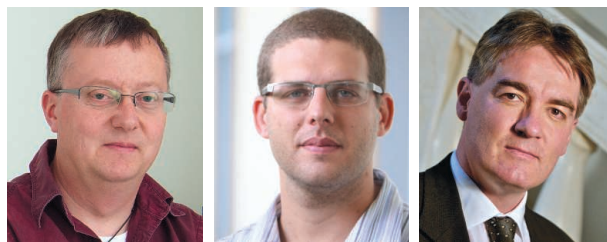
Wellcome Puts Its Money on Elite Researchers

The Wellcome Trust, the world's largest research charity, this week announced the first winners of a program of large single-investigator awards to prominent biomedical researchers. While this is great news for the 27 new Wellcome Investigators who will share £57 million, hundreds of university-based researchers stand to lose Wellcome funds as the trust phases out some existing programs to pay for the new category of investigators.

"It's a very good mixture of names," says Wellcome chief Mark Walport, who has championed the new awards as the best means of supporting exceptionally talented researchers in Britain and elsewhere with globally competitive and reliable funding. But Paul Marshall, director of the 1994 Group of universities, warned that other funders following the same path could lead to "over-reliance on a small number of research 'stars,' and fears for maintaining a broad base."

The Wellcome Trust, whose endowment stood at £13.9 billion last year, will spend £750 million this year on its full range of fellowships, grant programs, and research laboratories. Its annual budget matches that of the publicly funded Medical Research Council (MRC) and slightly exceeds that of its closest U.S. equivalent, the Howard Hughes Medical Institute (HHMI). The trust announced in 2009 that it was going to phase out several long-running funding streams that support hundreds

of scientists, including its regular program, project, and equipment grants, to free up about £110 million annually for a new program that handsomely rewarded a smaller cadre of scientists judged to have the potential to do groundbreaking research (*Science*, 21 May 2010, p. 964). The plan has been likened to the approach employed by HHMI, which concentrates most of its effort on supporting 300 investigators in the United States.



Favored few. Recipients of Wellcome Investigator awards: Liverpool's Alister Craig, Pedro Hallal from Brazil, and Oxford's Peter Rothwell.

Wellcome vetted the resumé of 750 applicants and chose 173 to complete an application form that asked a handful of simple questions about what the applicant was seeking to investigate, how they'd do it, and why it mattered. Nine review panels then picked 55 candidates to attend a "star chamber" of prominent researchers; each was given 10 minutes and three slides to make his or her case, before a brief interrogation.

The result, announced on 2 June, was 25 individual awards and one shared award, over periods of up to 7 years, worth a total of £57 million. Wellcome expects to issue three or four smaller rounds of such awards each year, and if these reflect the first round, it will end up supporting more than 300 awardees at a rate of about £350,000 a year each.

The 26 awards are heavily concentrated among a handful of institutions: 21 of them are going to the so-called golden triangle cities of London, Cambridge, and Oxford, with 15 going to just four universities. Four awards go to scientists elsewhere in the United Kingdom. Pedro Hallal of Federal University of Pelotas in Brazil is the only recipient working outside the United Kingdom.

Awardees say the selection process made a refreshing change from conventional grant applications. The written application process "was much shorter than usual but much harder to do," recalls Laurence Pearl, a structural biologist at the University of Sussex who won about £2.5 million over 7 years to study the role of the Hsp90 molecular carrier in acti-

vating and regulating proteins. "It didn't let you hide behind the detail of what you're planning in the laboratory."

The star chamber "was completely nerve-racking" for molecular parasitologist Alister Craig of the Liverpool School of Tropical Medicine, who won £1.4 million over 5 years to study the accumulation of infected blood cells in the brains of patients with cerebral malaria. Six of the awards are for "New Investigators," people with less than 5 years of postdoctoral experience. Craig, like some other winners, says he's "worried about people who are too old for the 'new' investigator awards and not quite ready for the 'senior' ones." He says he hopes that the trust will work out a way to restore project-specific grants in some shape or form.

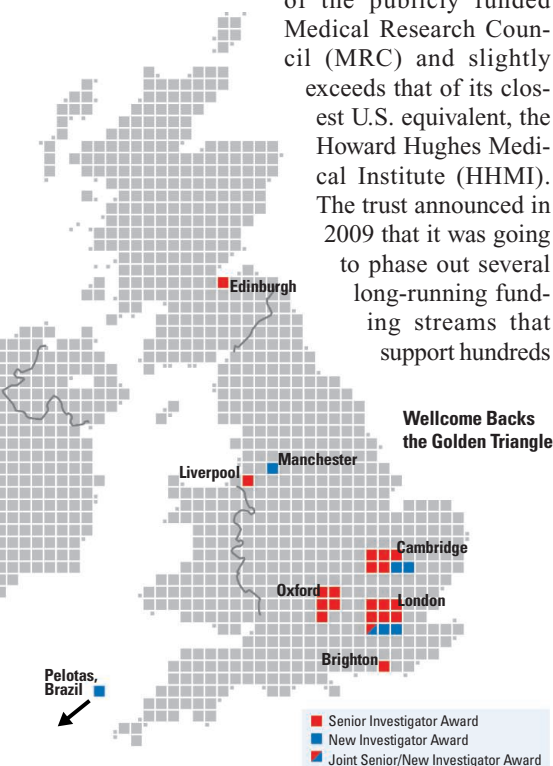
Clinician Peter Rothwell of the University of Oxford thinks that he was helped by having a project straddling two fields—in his case, neuroscience and public health. His team will use a £2.5 million award to study practical steps to avert strokes, how variable blood pressure contributes to them, and the nonvascular effects of aspirin. "They were willing to let me draw together these three strands," he says.

Hallal, 31, will study how physical exercise by mothers and children affects lifelong health. "Funding for research in Brazil is almost always short term," says Hallal, who came across the program while visiting the United Kingdom on a Royal Society fellowship. "Seven years of support is extraordinarily important for my career."

Researchers are now eager to see what effect this concentration of funds will have on U.K. biomedical research. Wellcome's project grants "were the first step on the ladder for many of us," says Jonathan Weber, director of medical research at Imperial College London. Applications for MRC grants have gone up "markedly" since the Wellcome ones closed, he says: "We still see that as unresolved." Leszek Borysiewicz, vice-chancellor of the University of Cambridge, which won four awards, believes the impact will be positive: "Universities will adapt to this way of funding research." MRC Chief Executive John Savill points out that the United Kingdom spends £3 billion a year on biomedical research, leaving "a lot of alternatives" to the discontinued Wellcome programs.

—COLIN MACILWAIN

Colin Macilwain is a writer based in Edinburgh, U.K.



Familiar territory. Wellcome focuses its awards on U.K. powerhouses Oxford, Cambridge, and London.