

GOVERNMENT RESEARCH SUPPORT

HIGH MARKS FOR U.K. BIOTECHNOLOGY DIRECTORATE

LONDON—An independent review panel urges strong support for the seven-year-old U.K. Science and Engineering Research Council's (SERC) Biotechnology Directorate. Chaired by Tom Blundell of Birkbeck College (London), the 10-person panel consisted of seven academics, industry representatives from Celltech (Slough) and ICI (London), and one Department of Trade and Industry official. Following its examination of the directorate's past achievements and future prospects, the panel advocates increased support levels for another six years. It also suggests that the directorate collaborate more closely with the DTI.

The directorate, now seeking a replacement for its retiring founder-director Geoffrey Potter, has been largely successful in identifying and funding precompetitive biotech research. The panel also praises the directorate for establishing several research "clubs"—programs each funded jointly by the directorate and a group of companies. The panel sees a continued national and industrial demand for both functions, and argues that an enlarged directorate is the best way to meet the demand.

The report offers little criticism. It essentially rejects the Medical Research Council's (MRC) complaints—that the directorate's style of operation causes unnecessary frustration and friction with established funding mechanisms, that it consults MRC too little and too late, and that its activities have not led to successful technology transfer.

Despite the fact that "the present fragmentation...is to the detriment of the development of biotechnology...and to the transfer of basic discoveries and developments in biotechnology to an industrial setting," the panel sees no hope in the near future for bringing the research councils together in a coordinated biotechnology program. For the short term, therefore, it limits its recommendations to specific proposals for improving the representation of MRC and other research councils in directorate affairs.

The panel does, however, recommend establishing "a stepping stone to any wider national program developed in the future, involving other Research Councils and Ministries" in the form of a joint advisory body to coordinate SERC and DTI biotechnology. In fact, DTI proposed such a

body in its evidence to the panel, and Blundell sees it as a core onto which other modules—such as MRC—could be attached. SERC too appears to support this tactic.

The panel also raises two other directorate problems, though without offering direct solutions. The first is the directorate's relative inability to attract the interest and support of small companies in its programs. The other problem—the lack of a directed program in instrumentation—cannot be addressed, the panel suggests, without remedying the weakness of the U.K. industrial base.

The panel further observes that the sciences that underpin biotechnology are still rapidly developing, and that links between specialists still need to be identified and nurtured. Thus the case for continuing the directorate's activities. It emphasizes the particular importance to biotechnology of engineering and chemistry, and praises the directorate for its success in integrating biologists, chemists, and engineers (an effort made relatively easy by the fact that SERC supports all three disciplines).

New links to be forged by the directorate may take the form of integrated projects that draw together parts of existing programs or new priority areas—such as biomimetic technology or biomaterials, both under consideration. For any new initiatives, the directorate will need an increased budget. The panel calculates, however, that the current annual budget—about \$26 million—will need to be increased.

The only other financial recommendations concern the training program, largely to support graduate students, which consumes about a third of the directorate's budget. Recognizing the program's importance—especially given the widespread concern that future demand will outstrip the supply of U.K. biotechnologists—the panel recommends that SERC continue to put pressure on both the Department of Education and Science and on industry for more generous funding to provide incentives for graduate students conducting biotechnology research. This includes traditional grant programs and also the so-called CASE (Cooperative Awards in Science and Engineering) studentships, which are industry-sponsored grants akin to fellowship programs in the U.S.

—Peter Newmark

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