## RITISH VENTURE CAPITAL EXAMINES ITSELF

LONDON—Pessimistic venture capitalists met optimistic engineers at the recent "Investment in Biotechnology" conference here. The venture capitalists stressed the need for realism; the engineers stressed the need for pilot plants.

Although the honeymoon between venture capitalists and biotechnology is over-particularly as far as U.S. institutional investors are concerned-hype has done less damage in Britain due to the relative immaturity and more cautious nature of the U.K. venture capital sector. This is the view of John Walker, director of investments at Charterhouse Japhet venture fund.

Venture capital firms should seek products rather than research, he maintained. "If the products are more than a year away from the market, then we're not the right people. If sales are not £5 million within three years, then, again, it's not for us." Diagnostics are perhaps the most attractive investment, whereas therapeutics are too long term, he said.

Walker also picked specialty food enzymes, xanthan gums for the food industry, and biomedical sensors as potentially lucrative areas for high risk cash. In the agricultural biotechnology sector, where niche markets abound and new products are readily accepted, the venture capitalist can make money within the desired time frame by putting together a solid company that soon becomes prime takeover material.

Turning to areas of biotechnology that investors should avoid, Walker listed waste treatment, chemical catalysts, gene probes, metal recovery, biomass, and bioelectronics. They are dreams rather than commercial opportunities, he reckoned.

A contrasting view came from David Cooksey, managing director of Advent. He stressed that venture capital is essentially "patient money" tar-geted at capital gains in seven or so years. Diagnostics ventures, while more near term, may no longer be attractive because there are now so many players, Cooksey said.

Contract R&D houses are also unattractive investment vehicles, Cooksey maintained. "They may produce short-term dazzling results, but they have to keep the work flowing," he explains. "The up side is by no means secure. The down side is absolute."

U.K. academics, he believes, are over-protected from the real world and are therefore not prepared to

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Process engineering contractors expected much from the biotechnology boom. So far they have received little. But, said Carl-Gustaf Rosén, research director at Alfa-Laval (Tumba, Sweden), the problems of scale-up can only be solved with help from the process engineer. Access to a first-class pilot plant is the key to success because scale-up involves a series of compromises that cannot be predicted in a laboratory situation, he said.

Paul Osborne, president of Catalytic International, the engineering contractor behind Schering-Plough's Irish interferon facility, agreed that the pilot plant plus supporting laboratories are part of the recipe for success. He advised engineering companies hoping to cash in on biotechnology to set up their own multipurpose pilot fermentation units capable of performing process optimization and addressing the needs of both large-scale commodity products and specialty pharmaceuticals.

This approach, Osborne said, represents a better investment for engineering

contractors than simply taking an equity stake in a new biotechnology company.

risk all in setting up their own companies. Concerns run high over harming the purity of their science and the stigma attached to business failure.

Cooksey added that venture capital entry costs are much lower in the U.K. than in the U.S. Net returns may therefore be quite attractive. Agricultural Genetics Company, for instance, with its access to a very productive U.K. government-financed research base, would be valued at five to ten times its current price across the Atlantic. The fact that all three of AGC's industrial investors are foreign is a poor reflection on British industry, Cooksey concluded.

Venture capital firms must play a leading role in creating new U.K. biotechnology companies, believes Derek Allam of Prutec, since there is a chronic shortage of suitable management in Britain and a lack of the type of business acumen that exists in the U.S. academic community. Allam, whose fund contributes around 10 percent of the total U.K. venture pool, predicts that suitable managers will soon start emerging from small British biotechnology concerns like Celltech.

Echoing other British venture capital fund managers, Allam said business plans put together by British would-be entrepreneurs are generally poor, reflecting the inferior quality of most management teams. Of 4,000 inquiries, Prutec has found only 20 up to scratch for investment.

Allam stressed the need to call a halt to projects if there are doubts over commercial feasibility. "We have stopped more projects for marketing rather than technical reasons," he revealed. "It is far more difficult to stop a project than start one-you really have to bite the bullet.'

-Michael Stone