

## COMMENTARY

by Bernard Dixon

## JULIAN DAVIES'S FAREWELL TO BIOGEN



One lunchtime last March, during a Dahlem Conference in Berlin, I quizzed the president and research director of Biogen S.A. about a book I was then involved in planning concerning highlights of European science. What, I asked Julian Davies, were the specialties in which he felt Europe was particularly strong in comparison with the United States and Japan? Julian's first nomination

was instantaneous and expressed with singular enthusiasm: the work of David Hopwood's team at the John Innes Institute (Norwich, U.K.) on the genetics of antibiotic synthesis in streptomycetes. "There's nothing like that set-up anywhere else in the world," he said. "It represents a formidable achievement, extremely important for the future development of improved antimicrobials."

Only two months later, the same man—now the former president and research director of Biogen S.A.—cited the genetics of antibiotic producers as the sort of topic which his newfound freedom might allow him to pursue in the future. We were speaking in Geneva this time, during Biotech 85, shortly after Dr. Davies had sent shockwaves through the biotechnology community by resigning both his executive post and his position on Biogen's scientific board. He had done so without rancor, and without a new appointment on offer or even in mind. Fiercely loyal to his former company, and dismissive of rumours about laboratory closures ("I know nothing whatever about takeover gossip either"), Davies had nevertheless come to feel that he must break loose. He was acutely sensitive about the possible effect of his decision on morale among Biogen's conspicuously youthful researchers (many of whom he himself took on board, and who have rare affection and esteem for their former boss), though content that he was leaving things in the extremely capable hands of Professor Ken Murray as interim research director.

Some observers, casual or cynical, will pass a relatively uncomplex verdict on the state of Biogen, founded in 1978, and on the Welsh-born scientist who joined the company as an academic from the University of Wisconsin two years later. With laboratories in Cambridge, Massachusetts, and Geneva, Switzerland, Biogen has many achievements to its credit, including the first human clinical trials of recombinant gamma interferon and interleukin-2. Licensing agreements have been signed with the Wellcome Foundation for hepatitis B vaccine, with BASF AG for tumor necrosis factor, with Smith Kline and French for tissue plasminogen activator, and KabiVitrum AB for human somatomedin C.

But there have been serious difficulties too. Despite attracting over \$200 million in venture capital and research partnerships, Biogen has never really raised the cash it has required. Four years ago, suddenly apprehensive about the longer time necessary to bring agricultural and chemical products to commercial fruition, the compa-

ny resolved to focus on health care and veterinary products. Last year, running costs rose by 49 percent to almost \$44 million. And last December, in a move hastened by pressure from certain investors, chief executive and Nobel Prize-winning founder Walter Gilbert resigned. The company now aims to break even in 1987 by concentrating hard on the immediate, rather than medium- or long-term, future. "Marketing, right now, is the most exciting area in biotechnology," says Veronica Jordan, director of marketing and business development, in Biogen's latest annual report. "The science has been done. The marketing hasn't. There aren't guides or maps to follow. We're charting a whole new area for biotechnology."

There are ample grounds, then, for a simplistic interpretation of Julian Davies's departure: Here is an academic at heart, who became mixed up in business but never really came to terms with it, panicked when the pressure rose, and decided to get out. The truth, I suggest, is somewhat different. While Davies is the first to admit that he was relatively unfamiliar with commercial life when he joined Biogen in 1980, he was soon enjoying his new world and responsibilities. Indeed, he played a major role in negotiating the licensing operations that have helped to bring much-needed money into the company's coffers. No-one today could accuse him of naivety.

At the same time, however, growing pressures to achieve much earlier profitability have forced drastic changes on the strategy and philosophy which characterized the company in its early years. "When I go to scientific meetings today, I often hear about the sort of research which I simply cannot do any more," Julian Davies told me in Geneva. "The problem has never been the need for secrecy, as some of my non-industrial friends suspected at first. At no time in the past five years have I felt constrained in any way by commercial confidentiality. I do miss teaching and contacts with students. But the critical factor has been a loss of freedom to pursue studies not tied to immediate sales potential. Biogen is going to have to miss out on the next generation of gene products."

Those words, and Julian Davies's track record, do not indicate a hankering for the unworldly world of pure science. What they do suggest is profound unease in someone who recognizes that commercial prosperity rests in part on scientific foundations laid down today for products to be sold the year *after* next. Was it not a pity, I asked at the end of our talk, that there seemed to be no place for a bioscientist of his persuasion in an outfit like Biogen? Was the story of his five years with the company really an allegory of our times? Not at all, he replied. What had happened to him was by no means typical or inevitable. And to prove the point he cited at least one other former academic who had found continuing satisfaction astride the heights of commerce. To Julian Davies's other qualities, skeptics please note, we have to add a marked generosity of spirit.

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