

Professor John Bell, Powderject, Oxagen and Avidex

Stanford and spin-offs

As a Canadian, John Bell had grown up with North American enterprise a constant element in his environment and, following medical training in Oxford and London, he learned more of Californian entrepreneurs at first hand. He arrived at Stanford University to become a Clinical Fellow in Immunology just as molecular biology was taking off in the Bay area, so that he saw Stanford academics establishing spin-out businesses and the university struggling to work out how to handle them. John Bell thought that Stanford's refusal to become involved with start-ups at all was "a terrible mistake, because it deprived the university of potential capital gain.

Bell did, however, see Stanford benefit from licensing. He arrived in California just as the Cohen-Boyer legal case was settled, giving to both Stanford and the University of California, San Francisco, important patents in the technology which effectively made recombinant DNA research possible. Licensing these patents alone brought the universities a total of \$20 million a year between them.

Bell's influence has been less hands-on, than that of other Professors, like Brady and Dwek, but widely spread. Returning to Oxford, in 1987, he says he found "a thriving and flourishing environment, but with scepticism about academics coming close to commercial activity. After California, I had a different perspective."

Garth Cooper and Amylin

A year later, Bell was approached by a New Zealand student, Garth Cooper, who was researching in Oxford. Knowing of Bell's Stanford connections, Cooper sought out Bell and asked him for help in exploiting his research findings, and Bell discussed these with Ted Green, a San Diego venture capitalist. Green was so impressed with their possibilities that, the very next day, Cooper left for San Diego! And, within two weeks, Cooper and Green had filed patents based on Cooper's data. They gave the name "Amylin" to one protein Cooper had identified and wrote a business plan for a company also to be called Amylin.

The initial idea was that, with Bell's help, they would try to establish the company, Amylin, near Oxford but John Bell says they found that in 1990 the Oxford area was "just a desert for creating entrepreneurial activities".

Green and Cooper therefore returned to the USA and set up Amylin in San Diego, California even though much of its venture capital came from London. The company grew rapidly, reached 100 employees and floated on the Nasdaq exchange. But Amylin's lead product was refused approval by the US regulatory authorities and the company's share price dropped below one dollar. There were also disagreements with senior managers and directors and Cooper was replaced as chief scientist. Nevertheless, he was able to sell his shareholding profitably, returned to New Zealand and established another company. In the spring of 2003, Amylin had a market capitalisation of \$1.4 billion.

Lessons for ISIS

The Amylin experience showed Bell that there was unexploited IP in Oxford and he sent Elspeth Bellhouse, a London physics graduate, on a trip to the USA to report to him on how the top six US universities handled entrepreneurship. Encouragingly, she found Oxford "not far behind". Even so, there remained a widespread feeling in Oxford that the university's technology transfer instrument, ISIS Innovation Ltd, was not performing optimally and Bell developed a scheme which he believed would enable it to do so. Inevitably, this led the university to launch an enquiry, and this proposed the establishment of a medical division of ISIS. Bell refused to use ISIS even if this were done, but perhaps his refusal was the catalyst. ISIS was reorganised, Bell and others joined the ISIS Board and Tim Cook later became managing director. With Tim Cook's generally-acknowledged success in that role, John Bell now sees ISIS as 'a splendid model'.

Powderject

Meanwhile, Elspeth Bellhouse and her father had approached Bell. Brian Bellhouse was another fellow at Bell's college - Magdalen – and he had invented “an interesting device for sending small particles through the skin”. It was a new form of vaccination and drug delivery, though even today one not approved by regulatory authorities. Having added a period of management training at Templeton College, Elspeth was in the process of establishing a company – Powderject - to exploit her father's discovery. After some discussion, Bell agreed to help in this, while Elspeth said her father had found “a great entrepreneur”, Paul Drayson, to develop the business. (Incidentally, Paul and Elspeth soon married.)

After negotiation with the university to obtain necessary Intellectual Property, Elspeth, Paul and John Bell became founder directors of Powderject. The company had ‘outstanding technology’ and Drayson's great strength was in engineering corporate deals. To the surprise – and later applause - of many, Drayson was able to use the optimism associated with its vaccination device to profit from obtaining licences for manufacturing and selling other products, not least vaccines, while proving Powderject's own “very interesting device”. This strategy was an outstanding success and, having been floated in 1996, within seven years Powderject reached a turnover of £160 million. With so much promise, in August 2003 Powderject was acquired by the Chiron Corporation of America for £542 million. John Bell calls Powderject “the most exciting and interesting thing I have done”, while he considers Paul Drayson “one of the great men of UK biotechnology”.

Oxagen

Professor Bell then saw another possibility. His own department had “probably the world's best programme in common-disease genetics”, and he wanted to spin out a company – Oxagen - from it. Bell discussed this with Ian Laing and Nick Croft - the financiers, property developers and business angels, who had created a science park at Milton Park, near Didcot, and who had already provided the initial finance for Oxagen. Mark Peyton is now CEO of Oxagen and the company, says Bell, has raised money more easily than any other genetic company he knows, but it has not floated. It has, says Bell, until recently been “over-managed but under-led”.

Avidex

Bell's latest involvement is with Avidex, a company spun out to exploit work of another senior Oxford research colleague, Bent Jakobsen, and especially his development of soluble T-cell receptors, which enable the immune system to recognise abnormal cells. Bell feels the establishment of Avidex shows networking at its best. Its CEO is James Noble, who had been on company boards with Bell. They also knew other founding directors, including Martin Wood – creator of Oxford Instruments and Oxford University's first major entrepreneur. And, as with Oxagen, Nick Cook was a founder director. Unlike Amylin, ‘everything was there – a building, business angel money and employees keen to join’.

For Professor Bell, now Oxford's Regius Professor of Medicine, “spin-offs have been fun, helped to keep me interested and are among Oxford's greatest successes. People think Oxford is old-fashioned and hopeless, but we are not now.” For that, innovative professors, including Bell, Brady, Dwek and Richards deserve substantial credit.

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