



Sir Chris Evans divulges his experiences as an entrepreneur

Interview by Rebecca N. Lawrence

Prof. Sir Christopher Evans,
Chairman, Merlin Biosciences, UK

Sir Christopher co-founded Merlin Biosciences in 1996 and is widely regarded as one of the most successful biotechnology entrepreneurs in the UK. Sir Christopher has founded a number of high-technology companies, three of which [Chiroscience Group (now merged with Celltech and Medeva), Celsis International and Toad] are now publicly listed. Evans was appointed OBE for services to biotechnology in 1995 and has been actively involved in many of the UK Government's biotechnology initiatives. He is also an active member of The Prime Minister's Council for Science and Technology and holds Professorships at the Universities of Exeter, Liverpool, Manchester and Imperial College in the UK, where he regularly lectures. He has been awarded seven Doctor of Science degrees and has over 100 scientific publications and patents. In addition, he regularly gives 'informal' lectures to schools, colleges and key regional assemblies to promote the awareness of science and the importance of high-technology SMEs. Evans was knighted in the New Year's Honours List 2001.

Can you tell me about how you moved from research to being an entrepreneur and then into the financing side of the industry.

After doing my Bachelor degree and PhD in the UK, I went to the USA to do some research fellowships. Interestingly, although I was not originally a money-driven person, it was money that persuaded me to move out of research. I was earning so little as a Senior Research Fellow in the USA that I began giving seminars all around the States for cash. Attendees of these seminars were from young biotech companies and pharma companies who were interested in particular aspects of microbiology and biotechnology, of which I had some expertise. Besides being paid a few hundred dollars for giving the seminar, I was also offered several jobs after these seminars. The starting salaries for these jobs were US\$60,000–70,000 per year as opposed to the US\$15,000 per year I was earning as a research fellow. I decided that this is what I wanted to do: I wanted to apply all the theory and science I had learned to industry where I could make actual products.

I then worked as a Senior Science Research Manager for several US and Canadian biotech companies. It was when I was working for Genzyme (in Boston, MA, USA and then in the UK) that I decided it was time to create my own start-up company. I had this burning drive and ambition to do things my own way, to build my own company with my own ideas and with my own strategy, and to take the full risk and the full reward (or failure, whichever comes your way, although I didn't really countenance failure) that you get.

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I set up my first company, Enzymatix, in 1987, in Cambridge, UK, and that was Cambridge's first biotechnology company (as well as one of the first biotech companies in Britain and in Europe). The only other two that had formed at the time were Celltech and British Biotech. The next

evolution was when I broke that company up and sold parts from it in 1991/2. I then formed Chiroscience and Celsis International in 1992, and then floated Celsis in 1993 and Chiroscience in 1994. So, within the space of three or four years, I had gone from forming my first company to having created five companies and having floated two of them on the stockmarket, so I was then classified as a 'serial entrepreneur'. I then created several other specialist companies with groups of scientists as founders, investing in them and building them up.

In 1996/7, I decided to form Merlin Biosciences as an umbrella company as it was becoming impossible to keep forming new companies and trying to manage them and build them up all on my own. I formed Merlin with Peter Keen (now Managing Director of UK Operations) and Mark Clement (now Managing Director of European Operations), who had worked with me over the years and had helped found many of my other companies. Both have a lot of sector knowledge, expertise and experience. I have now become a specialist venture capitalist (VC) within the bioscience sector, and I think we are certainly one of the leading groups of knowledgeable experienced financiers of early-stage bioscience companies in Europe.

Do you miss the science?

I do and I don't. There are times when I wish I could just have a year without any pressure, going back into the laboratory and doing some real cutting-edge science with a team of people around you. There is the excitement of waiting for results to come through, correlating the data and then realizing you have discovered that this receptor does this or does that, but then part of me realizes that whatever I did, it would just be a minuscule piece of scientific progress. By contrast, I think I can make a much bigger difference doing what I do now. If you look at Europe between September 2000 and September 2001, Merlin invested over €421 million in 20 bioscience companies, which was 40% of all the money invested in European biosciences, and we did 25% of all the biotechnology transactions during that period. I think that is a far greater contribution by me and my team than doing one year's-worth of experiments, even with the best lab in the world and with some of the best people behind the bench.

The aim for Merlin now is to keep building the company and our track record to show that we can deliver big financial returns to our investors, just like we did with Chiroscience and Celsis – that is the single most important thing I can achieve in the next 10 years. If I can consistently exit the capital gain back to our investors at a very, very good return, I will have clearly demonstrated that, once-and-for-all, you can be a successful specialist investor in just biotech and human medicine. This will ensure that people will continue to keep investing large volumes of money in medical science through commercial enterprises like biotech companies even if I stop for whatever reason.

So, how did you come to set up a couple of companies outside of the biomedical area (e.g. Toad, a hi-tech car security company; Enviros, an environmental technology company; GEO, an Internet start-up)?
This was during the typical 'growing-up' phase: when you become an entrepreneur, you have a few successes, you make significant sums of money for yourself and other people, and then you suddenly think you are immortal and you can do anything; it is fantastically naive. I am afraid this is inherent in the genetic makeup of most entrepreneurs – if someone tells you that if you put your hand in that fire you will get burnt, we will still put our hand in to see if we can pull out the gold watch without getting too burnt. It is only when we actually get burnt that we realize our limits. Other people would say they are smarter than entrepreneurs because they wouldn't put their hand in the fire in the first place but he that has never tried has never won. I have often quoted that I would rather live one day as a tiger than 100 years as a sheep...I know a lot of sheep!

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I built Toad up from scratch. While fitting several mediocre products to one of my beloved cars, I came up with other more original product ideas and so I bought a garage in Cambridge and set up the company. The garage was soon saturated with business and so I built several more garages. Toad has now fitted over one million British cars with security

products since I founded the company. I have now left the company but it still makes >US\$50 million per year of sales and it is profitable. It was a successful little company and really was something that I should not have been distracted by. I did frankly spend too long being distracted by those sorts of things. I finally decided a few years ago to move away from anything that was not mainstream biomedicine.

Merlin is me and I am Merlin.

Now, I will not significantly invest in, or create, a company that is not in human biomedicine, and when I do create companies, it has to be done under the Merlin umbrella. This is my exclusive arrangement with Merlin for all time: Merlin is me and I am Merlin and so there will never be any more Toads coming from me. It was good fun and good experience, but you can spend as much time building up a £10 million Toad as a £1 billion Chiroscience, and you have got to ask the question, 'where is my time better spent?' You can venture outside your box and maybe prove a few points to yourself and others but then, if you are sensible, I think there comes a point when you should get back in your box and stick to your knitting and that way you can really make a serious contribution. The accumulation of all your knowledge and experience is then being focussed and channelled into one direction, and I think human biomedicine is the most exciting market in the world right now.

Which biotech companies do you feel are the most exciting at the moment?

All the big ones are still exciting companies, for example, Amgen, Genentech, Genzyme, Biogen, Chiron. In Europe, there is Elan, Quiagen and Serono and, in the UK, Celltech, Chiroscience and Shire, although these companies are underrated. Then there is a raft of multibillion companies coming through, such as Millennium, Human Genome Science, Celera, Immunex. Exciting new British companies coming up behind them include Acambis, Cyclacel, Ark, Microscience and Vectura. The last four were created from scratch by Merlin and they are now some of the biggest and best private companies in Europe; they are potentially US\$200 million IPOs waiting in

the shadows. Other promising companies include Willex, Graffinity, Strakan, Inpharmatica, Oxagen and Ribotargets, which are all sizeable companies with quite good funds and strong project pipelines, management teams and VCs behind them.

Then there are companies that are currently sub-US\$100 million market-capital because they are still private, such as Hormos. These could become US\$200+ million IPOs if the markets were to open. When the markets do open up, they all need to raise a minimum of US\$40–70 million each to kick-start the process and drive their products through clinical trials. Hopefully, we will see some of them becoming billion-dollar companies in the future.

What do you think are the current key problems and obstacles the biotech industry needs to overcome?

It is the usual package of things. One is money. Where we have improved is that VCs are putting a lot of money into the private British and European biotech companies compared with the Americans. However, we are still very poor in the UK and Europe at raising secondary offerings for those companies that are already on the stockmarket (as PPL Therapeutics has shown). For example, Antisoma, a listed company, is developing products, going into the clinic, and burning US\$1 million per month, but it probably has only 3–4 months' money left and the City is unlikely to beat a path to its door to put the money in. This then leads to bad news, companies collapsing, poor sentiment, etc. causing problems in the perception of this industry. I hope Antisoma can raise some more funds and fast!

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The other main obstacle is in getting really vibrant and cohesive management teams – that is, getting a Chief Executive, Finance Director, Commercial Director and Chief Scientific Officer (usually the founder) all working together and being very creative and energetic. This sort of management team is still lacking in Britain and in Europe. By contrast, in the USA,

management teams tend to be naturally vibrant because it is more in their culture. However, in Britain and Europe, we are now getting many people coming back from the USA to spend the rest of their lives here, having either made their fortune in the States, or having grown in confidence after making their mark over there.

What are the main pitfalls that many new start-up companies fall into when they come to see VCs such as yourself?

Not sending the very best people to meet us in that crucial first meeting. First impressions count and you only get one shot. These companies need to know their business inside out before setting off to meet the VCs. They need to be prepared to answer far-reaching, in-depth questions about the science and technology, IP rights and management expertise. The people they will be meeting with will be the VCs' experts who are there to sort the wheat from the chaff. They know their stuff and it quickly becomes apparent if the companies don't know theirs. Unrealistic valuations are another problem we come up against again and again. The valuation has to be appropriate to the stage of development that the company is at. The companies need to realize that if the valuation is too high, future investors just will not be interested. You have got to think in the long term.

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How do you think we can persuade investors to fund stem cell research?

Investors are getting confused between terminologies: cloning, nuclear transfer, embryonic stem cells versus foetal stem cells versus bone marrow versus cell culture, extraction versus immortalization, etc., but I think that stem cells really are the Pandora's box. Obviously, it is a long-term business but, one day, stem cells are going to be responsible (directly or indirectly) for generating some of the greatest medical therapies that we have ever imagined. If we can harness them and grow them consistently, and can implant

them easily and effectively, I think they will give us some fabulous results. Indirectly, of course, they are powerful packages of information that can be used in screening and structural-based drug design.

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They are getting unnecessarily bad press and people should be more patient. People should think back to the late-1970s/early-1980s, when we were talking about cloning for the first time. Then, it was cloning human genes into bacteria and yeast so that you could use them to make proteins such as human insulin and human growth hormone. This was fraught with all sorts of problems – technical issues, poor stability and poor yields, and it took several years for these problems to be overcome. Now, however, biopharmaceuticals are the platform of biotechnology. Stem cells are the 21st century equivalent to this. Over the next 5–6 years, one or two of the people who are really pioneering stem cells will be successful and this will open up the real commercial excitement on stem cells. Although we have seen some very encouraging results recently, people are being a little over-optimistic as to how fast stem cells can get into the clinic. I think the ethics should also be tightly regulated and people should not be allowed to mass-extract stem cells from embryos; they should develop production methods for them, which they will. ReNeuron, in the UK, has announced it is taking mice neural stem cells into man this year – a fantastic piece of pioneering clinical work.

Do you think mega-mergers are a good idea as many people have suggested that the recent wave of mergers have generally created very little value?

They are good for creating these super-structures and these huge global healthcare companies, which I think will be quite brilliant at the clinical development of new medicines, manufacturing, sales, marketing, distribution, etc. However, as they become more efficient marketing/distribution organizations, they will become less efficient in R&D and, as a result, they are trying to form their own

satellite research centres. They are also depending much more (almost 50% dependence now) on the biotech community. This is good because the biotech community is a small, nimble research base that can generate these innovative new products. This means the biotech industry is becoming a valuable resource to these mega-merged pharmaceutical companies, so I would actually like to see an increasing number of these big mega-merged pharmaceutical companies over the next decade that can efficiently take drugs through into the marketplace. This will allow room for thousands of biotech companies to exist in symbiosis, supplying pharma with all the new medicines and technologies they need.

What are your views on some of the alternative methods of consolidation in the biotech/pharma industry such as the approach used by Roche/Genentech?

I think that is the way forward. I think buying a biotech company and absorbing it totally will become an uncommon phenomenon because people are realizing that this squeezes out all the lifeblood, enthusiasm, energy and entrepreneurial spirit (all the things you bought), which is exactly what happened when Glaxo bought Affymax. However, by taking either a controlling stake (like Roche did with Genentech) or taking a big minority stake with positions on the board and rights to certain projects, pharma companies can form a whole raft of financial arrangements with the biotech company where both parties get exactly what they want.

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The biotech company usually wants three things from the pharma company: money; a development and marketing partner; and information regarding changes in the markets so that they can identify the next wave of potential new medical targets. If pharma puts in this latter information, it enables small companies to rapidly develop new products in the areas that big pharma sees

as the real opportunities. The pharma company can then develop these new products and then put more cash back into the biotech company, and so on, so I think the cycle works really well. Biotech should not be afraid of partnering up at all stages; preclinical, clinical, Phase I, II or III. They should be progressing some products to a later stage themselves, as well as partnering up while trying to keep some independence.

Many platform companies are now starting to try to become rounded drug discovery companies. Do you think this is the approach they should be taking?

Yes, I certainly encourage the companies we invest in that are platform companies to start developing products. I think the really successful business model is the biotech company that has a strong platform technology (the research engine) that is also generating products for themselves as well as for their partners. This means you can offer your partners products, or access to the research engine, as well as developing your own pipeline of products for valuation by city analysts.

What have you learnt from setting up so many companies and how would you do it differently in the future?

From Merlin, I have learnt that what we are doing is right. You realize that your investee companies have to spend the money quickly and get products into clinical trials as quickly as possible. You need to make sure that you do not let the management teams build too much of an

empire of infrastructure and buildings and start getting carried away with all sorts of dreams. Otherwise, they will find that their money runs out before they have hit the real valuable milestones that you agreed when you initially invested, for example, clinical success. The first real valuable milestone tends to be the first clinical trial. We are gradually becoming tougher at putting money into scientific research unless it pushes the new products into the clinic.

Prior to joining Merlin, I guess I learnt not to do too many things at once or by yourself as you are not immortal and you cannot be brilliant at everything. If you spread yourself too thin, eventually it will show; if you concentrate on one or two things, then you can make a real success of them.

I learnt... you are not immortal and you cannot be brilliant at everything.

Where do you think the biotech industry will be in, say, 20 years' time?

Looking at the bigger picture, I think the most important change for European biotechnology will be that the gulf between Europe and the USA will have closed significantly. Europe is growing at a much faster rate than the USA, which is now maturing. Europe has some very strong companies coming through now and this will become apparent when the

IPO window begins to open later this year. We are beginning to wake up and realize that more money needs to be pumped into the industry to get the results. I have said this before, but we need a stronger commitment from government and there is also a definite need for a liquid European stock market with critical mass. Europe has the potential to rival the USA but a lot of effort is needed to realise this and start closing the gap.

Some new markets could also come to the fore. I think that developments in Asia look very interesting. I have spoken at conferences in both Singapore and Japan during the past year and noticed a definite increase in momentum.

What are you going you do next in your career?

The rest of my career is going to be at Merlin. I am working on a 25-year business plan now. It is 25 years because venture funds tend to be 10-year funds, so it is not hard to have the vision to see how the funds will build up and exits be made and where it will all go over the next 25 years. I hope to see myself making a really big contribution to the biotech community during this time, particularly in Europe. I might think about retiring after that!

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