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The class of 2004: Human capital in biotechnology

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Abstract

This paper assesses growth models for biotechnology organisations, comparing the dynamics of company evolution in the previous decade with circumstances pertinent to the more recent market downturn and financial constraints. Using anecdotal evidence gained from senior executives in biotechnology companies in the USA, Australia and Europe, the author demonstrates how the utilisation of human talent has evolved over the past decade. The creative use of human capital for companies with limited financial means is discussed, in the context of the differing needs of organisations as they progress along the biotechnology life cycle.

INTRODUCTION

Over the past decade the global biotechnology landscape has seen huge shifts in availability of funding, which has, in turn, had an impact on the way that biotechnology companies have had to be resourced. Different models for business structure, financing, partnering, operating and people resourcing have evolved. By the early 1990s the early wave of biotech companies was growing using the fully integrated drug discovery company (FIDDCO) organisational model. With sufficient finance and the availability of suitable management, companies such as Celltech, Centocor and Amgen grew to become integrated biopharmaceutical firms.

Compare this with biotechnology corporate life in 2004 for small and medium-sized enterprises (SMEs): in 2003 Europe employed around 80,000 people in biotechnology, losing some 7,000 compared with 2002 to the ravages of mergers or company failures.¹ The outlook for 2004 is no better: early stage companies are starved of finance; at mid-level they are running out of cash and larger companies are consolidating or merging. As a result of such merger activity there is a reservoir of executive talent available but fewer sustainable organisations for them to join. The

paradigm for human capital resourcing has changed in Europe, as well as the USA, Canada and Australia.

The life science industry is striving to attain key milestones with limited human resources and reduced budgets. To respond to these constraints greater use has been made of human capital resources such as interim management, non-executive directors (NEDs), supervisory board members and part-time executive or non-executive chairs. The serial entrepreneur and serial functional specialist have become key to the success of life science companies of the future.

THE OLD WAY

The accepted growth model in the first half of the 1990s meant that companies could build their management teams, raise more funding as required and steer the company towards initial public offering (IPO), at which time the management team would inevitably be modified. This, at a time when big pharma employers were considered a safe haven and venture capitalist activity in the SME sector supported the scientist/entrepreneur. In short, this created plenty of career opportunities in biotechnology companies and a flow of management resources from big pharma to biotech. The winners in this scenario were companies such as the

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UK's Cambridge Antibody Technology Group and Acambis in the UK and USA who had the courage and vision to recruit experienced talent for their Boards and senior management teams at an early stage in their evolution.

THE CURRENT REALITY

The early part of the new millennium saw a retreat from life science investment partially, if unfairly, brought about by implosion of the dot.com business model. Investors retreated to safer pastures and young companies were either strangled at birth or survived but were unable to expand. For the fortunate few with adequate funding, attention turned to limiting cash burn and maximising the effectiveness of their management and staff.

In Europe in 2000–01 a plethora of young companies emerged in the UK, Switzerland, Scandinavia and France, but they mostly have suffered from under-funding and unsustainability. In Germany the explosion of early stage biotechnology companies in the late 1990s financed by government grants, led to consolidation as one by one they became unable to survive. Events post-9/11 reinforced the financing drought and many early stage companies throughout the world were brought to their knees. What have been the implications for employment? University or technology transfer seed funding may help to start up a company but is insufficient to fund the resourcing needs. Typically, an early stage business plan may call for investment of between €0.5–1m to support a CEO, business development and finance function. There are also the CSO and scientific staff, and so on.

To add to the resourcing complexity, organisations need expert advice and help – be it in intellectual property (IP), partnering, public relations (PR) or labour relations. Each of these specialities (and more) can be provided by consultants, or internally by interim managers. Founder scientist find themselves surrounded by service providers, yet they may not even

know the questions to ask, let alone the answers.

THE BIOTECHNOLOGY LIFE CYCLE

Biotechnology organisations evolve rapidly. It is a truism to state that all sustainable companies require the 'golden triangle' – finance, IP and management. It is now accepted that businesses need different skills and experience at different times in their organisational development (Figure 1). The spectrum of needs can vary enormously; the founders may be scientists who need complementary commercial or financial skills in the founding team. Conversely some companies have been started by skilled management with a new technology platform for commercial exploitation. What is clear is that modern early stage companies need to balance the requirements of skills and experience with each stage of the evolutionary cycle and the financing situation. Different situations require different human capital solutions – perhaps a revised board structure, a new chair or an interim manager to plug a vital hole.

THE START-UP IN 2004?

What does the start-up of 2004 look like? In Europe there has already been a trend to finance established and internationally recognised groups spun out of big pharma, with strong IP and an established management team. The management of such already established groups will possess the necessary skill sets and functional experience to enable the new company to develop and grow. Examples include Proskelia in France and Adprotech in the UK. In the USA, the emerging start-up market is similarly affected, and the trends are not dissimilar. However, North American companies possess a rich vein of experienced management, who have suffered the hard knocks and are primed and ready to do it again – this time smarter and better. Australia has seen considerable growth in start-up activity, particularly in

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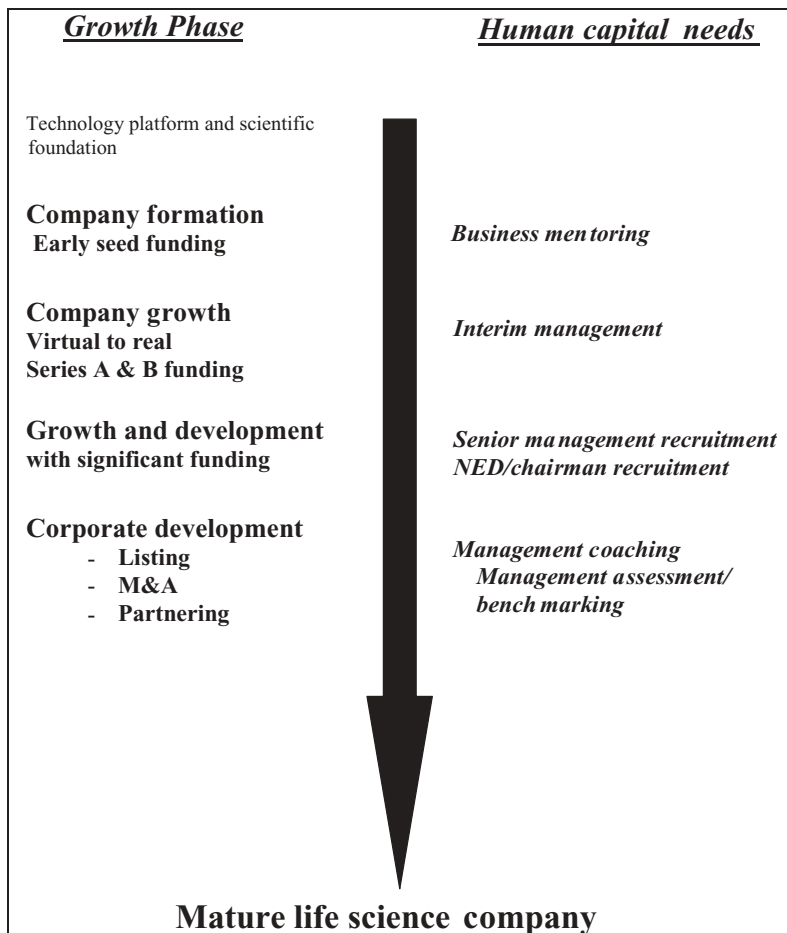


Figure 1: The biotechnology cycle

The skilful application of human capital can make the difference between commercial success or failure

Queensland and Victoria, where organisations have been forced to go public at an early stage. Experienced management is in short supply and there is a national rallying call to all expatriates and others willing to consider a new lifestyle to take up the reins of Australian biotech companies.

OTHER COMPANY MODELS

The virtual company model has been around for some time in different disguises. For example, the CEO of one of Europe's most highly valued quoted companies, which is semi-virtual, states: 'We have been able, over 5 years, to deliver considerable value for our stakeholders by building a strong multi-dimensional company with a small virtual

organisation. People are the key and we strive to have only the best.'

At the other end of the spectrum management teams can be brought in to rescue ailing companies, which will almost certainly involve further changes of personnel. Imaginative solutions to turn around such companies and the necessary objectivity to deliver the solution can only be done by new leadership introducing new rigour into the company.

CORPORATE MERGERS

The UK and continental Europe has seen a raft of biotech-biotech mergers, resulting in supposedly healthier and better financial entities. In the USA, some of the larger biopharmaceutical companies have been swallowed up by major pharmaceutical giants, the smaller company usually preserving its corporate structure and autonomy. Recently, the industry has seen larger biotech-biotech mergers in the USA, the most recent being Biogen and IDEC. Such mergers present huge human resourcing challenges, often much underestimated.

The skilful application of 'human capital' – to use the current in-phrase – has implications in a two or even three-way merger and can make the difference between ultimate commercial success or failure. Take the UK's recent merger of RiboTargets, British Biotech and Vernalis. This took place sequentially over a period of a few months, earlier in 2003. The new combined entity, Vernalis, has had to, in many cases, shoehorn three capable executives into one functional position. There are bound to be losers and implications on morale and productivity. A senior executive at the newly merged group stated: 'The HR uncertainties in a merger situation put an enormous strain on the whole company. Uncertainty and demotivation give productivity problems. Why should a manager put heart and soul into a 12 hour day when they may not have a job in two months time?' He goes on to point out different attitudes taken by merged or

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downsized organisations, ranging from the situation with one company in Europe – ‘little or no information given before severe cutbacks’, to another company’s attitude – ‘complete openness with staff in advance of the event’.

THE CLASS OF 2004

The biotech class of 2004 will be a breed of managers who are motivated by the challenge, the story, the team and, yes, the financial rewards. The employer will need to pay premium dollar for talent and experience. The company will have a flexible attitude to human capital – using interim management, experienced serial managers, better use of NEDs, part-time executive chairs and the knowledge and skills of mentors and coaches. The fully integrated FIDDCO will not necessarily be a creature of the past but will have morphed to a semi-virtual, lower-burn variant. In Europe, many observers see biotech growth in France and Switzerland as biotechs such as Immuno-Designed Molecules, Actelion and others mature and, in so doing, add human capital value. The UK will see more consolidation, giving leaner, fitter organisations, and, who knows, maybe a few start-ups will hurdle the first financing bar.

THE NEW BREED OF CEO

Back in 1993,² Ruston Poole International conducted a survey of CEOs in UK biotech. Amongst other factors, they looked at the average longevity of a UK CEO – then between eight and ten years. Now in 2004, the CEO of the early stage UK biotech is likely to be in place a maximum of two to three years before handing over the baton to the new incumbent to oversee the next phase of

development. In the USA, recent analysis has shown fewer than 40 per cent of founder-CEOs made it past the second round of venture financing.³

SUMMARY

In summary the key drivers to resourcing life science companies in the future is flexibility, realistic expectation of value, both human and technology value, and performance against specific milestones. At the beginning of this paper, it was suggested that the paradigm for human capital resourcing has changed for good, though perhaps not for the good of those who seek a quick financial fix. If investment is to flow into the industry, managers must demonstrate that they are prepared to deliver against tough targets and that investor money will be spent wisely. Maximising human resources is a way of spending that money well to the benefit of all who believe in this sector and want to see it flourish. There is a wealth of specialists in the sector and careful choice of appropriate people will weed out those who see only quick fixes to the benefit of those who are prepared to invest experience and time, while sacrificing some financial return for a healthy enterprise which is attractive to further investment.

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