Kamuriwo, D. & Baden-Fuller, C. (2014). Sparrow therapeutics exit strategy. Entrepreneurship: Theory and Practice, 38(3), pp. 691-708. doi: 10.1111/etap.12003

Sparrow Therapeutics Exit Strategy

Dr. Dzidziso Samuel Kamuriwo
&
Professor Charles Baden-fuller

Sir John Cass Business School
City University of London
106 Bunhill Row
EC1Y 8TZ
London, United Kingdom
T: 0044 207 040 8689
F: 0044 207 040 8328
Email: d.s.kamuriwo@city.ac.uk
c.baden-fuller@city.ac.uk

Acknowledgements:
The authors want to thank the management team of the company for giving them access to the company and allowing the case to be used for academic teaching and research purposes.

Sparrow Therapeutics exit strategy

Abstract

The case focuses on Ken Powers, co-founder and CEO of Sparrow Therapeutics, whose young biotechnology company has reached a critical stage where he has to decide whether or not to sell. The company's three main sets of investors have different priorities: (1) a quick cash sale now (2) delay sale for about a year if returns are greater and (3) delay sale for two years, build company value and retain autonomy. What choice would be best for the company, for its investors and – and for Ken himself? And when would be the best time to implement the exit strategy?

Introduction

It's June 2006, and Ken Powers, Chief Executive Officer of Sparrow Therapeutics, is facing a difficult Board meeting. His successful young biotech company has reached a critical stage where he has to decide whether or not to sell up. Ken knows the decision cannot be based solely on his personal goals - he has to consider what Sparrow's different investors want. Ken co-founded Sparrow as a university spin-out back in 1998 with a talented group of colleagues supported by an initial group of business angels[1]. Now Sparrow has blossomed into one of the UK's most promising small biotechnology companies, thanks in part to a lot of cash it received from venture capital (VC) investors. But – even given the expertise of Ken and his co-founders, and the exciting new techniques they are bringing to their work - drug discovery is a long and expensive business, and Ken has had to divert some of his energies to another round of fundraising from a second group of VC investors to keep Sparrow in development cash – but at the cost of jettisoning one whole stream of promising science. Now Sparrow's board – where these two groups of venture capital investors dominate the voice of the early founder/angel group - has been pushing Ken to propose an exit strategy[2] that satisfies all their interests.

But it's not a simple matter – for the three groups all want different things. Over the past year, Ken has sought advice from consultants, investment bankers and brokers about various exit options. Ken could sell the firm now – in fact, a major pharmaceutical company has put a cash offer on the table. Ken can see this would suit the 'first round' VC investors, who have been with the company since 2000 and who need to cash in now. Of all the investors, this group is the most worrisome – and the most vocal: facing pressure from their

[1] Business angels are wealthy entrepreneurial individuals who invest cash in new companies in return for a owning part of the business

[2] Ways investors can recoup the capital thay have invested in the company

own investors, they want their cash back as quickly as possible, regardless of whether the terms of any agreement Sparrow has to sign are acceptable to other investors.

Ken can also propose to take the company public via an initial public offering (IPO)[3] and a stock exchange listing, so shareholders can dispose of their shares on the public market, which will provide enough cash to replace their investment (and, ideally, more). There will be a delay of at least a year before investors get their cash back as Ken plans for the IPO, but Ken believes the main interest of those 'second round' VCs who invested in Sparrow only recently is to maximize the value of their investment, so they might be open to the idea of their exit being delayed – within reason. But he knows this group needs to be convinced Sparrow's value will continue to increase if they are to agree to take a longer term view of its future - and this means the products in Sparrow's development pipeline must be matured by at least one more stage.

Ken can also try to convince the board to keep their money in and put in some more - carry on their support in building up the company, increasing its value and consider the situation again in two years time. He knows there is no way he can please everyone - each option will satisfy one group and frustrate the others. And for Ken himself it isn't obvious either: he's put a lot of hope, skill and effort into Sparrow and he wants to be sure that a) the company's identity is maintained, either by it remaining an independent concern or (if part of a larger outfit) having sufficient scientific autonomy to continue its work; b) there's going to be enough cash to allow Sparrow to go on developing products so he can realize his long held goal of bringing its technologies to market; but at the same time c) that his investors – especially his co-founders and business angels (and he himself) – get a decent return for their investment and for their loyalty.

[3] An Initial Public Offering when a company issues shares for sale to the general public for the first time.

So – sell out now and risk being gobbled up in a huge conglomerate? Go public, and hope to find the money to keep going and stay in control of Sparrow's destiny? Persuade his current investors to stay with Sparrow, to buy him time to build its value up? Which is best for Sparrow – and for Ken himself? And can he even be sure these were the only options? What is he going to tell his Board tomorrow?

Background

Ken co-founded Sparrow Therapeutics with the help of talented colleagues and some business angels in 1998. Ken's exceptional credentials included international renown for his work as a virologist[4] and extensive prior experience in the pharmaceutical industry, having been Head of GlaxoSmithKline (GSK)'s infectious diseases research division for a number of years. On leaving GSK, he joined University College London (UCL) as Professor in the Virology Research Institute, where he had founded and managed two other successful biotechnology companies before Sparrow. Four of Ken's scientific co-founders were also prominent scientists in complementary drug discovery and development fields (professors at University College London, Newcastle, Cambridge and Oxford universities), but also had all - at one time or another - worked under Ken as their line manager at GSK (see Exhibit 1). Ken negotiated with the founding universities and a biotech services company, offering them shareholdings in his new venture in return for some rights to the initial core intellectual assets and the supporting patents (see Exhibit 1). He also succeeded in attracting other non-scientific co-founders who were experienced professionals in the financial and medical and business fields, who invested in Sparrow via an angel backed company, Unibio Ventures.

Insert Exhibit 1 here

---

[4] A scientist who studies viruses and viral diseases

Ken's (and his colleagues') ambition was to build Sparrow into a prominent drug discovery and development company, whose products would be used to treat the world's most serious and widespread infectious diseases. Ken believed Sparrow's entry into the biopharmaceutical sector in the 1990s was timely, because the market for young technology companies was starting to heat up. The UK biotechnology drug sector had over a hundred small firms, all claiming to have novel approaches to drug development, and the whole sector was supported by the large pharmaceutical companies, with whom many smaller firms struck licensing deals to fund their drug development activities in return for promises of sharing future profits when their discoveries were marketed.

So Ken designed Sparrow's market entry along the lines of what was fast becoming a well established business model: forming a small drug discovery/development company that creates value by making scientific progress in areas that might be of use to larger companies. Ken's intention (like those of other such UK biotechs) was to target drugs for development that nobody else had previously succeeded in bringing to the market. His team was particularly interested in using novel technological approaches to ensure high quality outputs, higher productivity and lower costs than its competitors. They believed this strategy would increase their chances of success in an industry that was fraught with risk, and was typically characterized by drug discovery and development times that could be very long - perhaps over 12 years - as well as being costly and unpredictable (Exhibit 2 shows the established drug discovery/development route and its cost and timing norms).

Ken's aim was for Sparrow to get drug prospects out of the university laboratory setting and through the first research/discovery step and into the 'Pre-clinical' trial phase much faster than the typical 6 years and much more cheaply than the £9 million ($14 million) industry averages. He knew smaller biotech firms could be much more efficient than larger

pharmaceuticals, and even hoped to achieve Phase I Clinical trials more cheaply, too. His rationale was:

> *"*We decided that to set up a UK company with late stage development (and marketing) capability would be impossible to fund. And t*hat's what large* pharmaceutical companies do extremely well. They have very sophisticated machines for late stage clinical development and marketing. However, their research productivity has become of major concern. I see us as a company providing that expertise in the early stage research and development, and the large pharmaceutical providing us with expertise in late stage development and the marketing expertise so *that we don't have to*, because it is a major expense.*"*

Insert Exhibit 2 here

Setting up the company 1998-2000

When Sparrow was founded in 1998, Ken became the CEO and during the first year hired three other employees to set up the company, retaining the other scientific co-founders as consultants and outsourcing work on Sparrow's initial research programs to its founding academic institutions. By March 2000, he had raised about £1 million ($1.6 million) - almost £0.2m from his founding partner Unibio (an investment company backed by business angels) and around £0.8m from 43 individual business angels, each investing between £10,000 and £50,000 (see Exhibit 3 for Sparrow's initial funding history), and set up a board dominated by these scientific and financial founders (see Exhibit 4). Many of the business angels supported Sparrow's early fund raising efforts because Ken had emphasized the attractiveness of its target activity to the large pharmaceutical industry companies and the novelty of its technology: he also highlighted the high caliber of Sparrow's founders and

partners, which gave investors confidence that these opportunities could be exploited and ramped up quickly and profitably.

Insert Exhibits 3 and 4 here

Early Stage Development of Sparrow 2000-2003

Ken believed that high quality research in the complex biotechnology field could only come from strong core in-house capabilities, so from 2000 he shifted Sparrow's focus to building these up and relying less on outsourcing work, hiring (initially) 10 full time employees. In July 2000, he took advantage of the exceptionally favorable funding environment to raise a further £11m (about $18m), mainly from 8 VC companies interested in biotech innovation. As only a few of Sparrow's founding business angel investors (and one scientific partner) could afford to add to their earlier investments, this huge influx of capital meant a significant drop in the percentage of the company owned by the founders (see Exhibit 3) – but they all accepted the situation, as they judged the incoming investment would greatly increase Sparrow's potential to make future profits. This investment round also meant changes in the board make-up, with the balance of power shifting from the founders towards the new VC investors (see Exhibit 4). So Ken's strategy for Sparrow from now on had to be particularly sensitive to the needs of these new stakeholders, whose board representation meant they could veto any significant shift in Sparrow's strategic direction.

Bolstered by these new funds, Ken led Sparrow on an active recruiting phase to build its internal molecular biology team and medicinal chemistry capabilities - specialized in-house competences that Ken believed would boost Sparrow's productivity and underpin its competitive advantage. Ken appointed one of his scientific co-founders (Professor Ian Charlton) as Chief Scientific Officer (CSO) with the mandate to significantly expand

Sparrow's biology group and recruited Stuart Cocks as Head of Chemistry to lead the expansion of Sparrow's chemistry capabilities, both of whom had very strong industry and relevant therapeutic and drug discovery experience. He also added Ian Phelps to the team as Chief Financial Officer (CFO), to make the most of his experience of biotechnology financing.

By early 2001, Ken's strategy seemed to be paying off. Sparrow announced two potential products ready to enter preclinical development: the cost and speed with which they had been prepared compared very favorably to the industry norms. To capitalize on this success, Ken appointed Sue Gaither as Clinical Development Director to manage the company's projects through their later development stage. He also persuaded the board to relocate to a new London building that doubled Sparrow's available office and laboratory space, and equipped this new HQ with state of the art chemistry, molecular biology and microbiology facilities that rivaled those of the big pharmaceutical companies. Sparrow's new London home put it closer to most of the UK-based pharmaceutical industry, giving it better access to potential national and international partners and customers and to the London -based European Agency for the Evaluation of Medicinal Products (EMEA, the European equivalent of the FDA in the US) and to leading European financial communities.

In January 2002, Sparrow took another step when Ken persuaded his board to acquire a smaller company involved in gene technology in exchange for about £1 million ($1.6million)-worth of Sparrow shares. This was an opportunistic move - the target company had fallen on hard times and was cheap, and Ken felt its assets would strengthen Sparrow's basic anti-bacterial research, an area where his managers believed success was quite difficult to achieve. These measures made it easier for Ken to recruit the best talent from British universities and industry, and Sparrow grew from about 20 staff in 2001 to almost 80 by 2003. But he knew that Sparrow's expansion would put a financial strain on the business (see

Exhibits 5 and 6 for Sparrow's financial statements). Drug development was an expensive enterprise - and Ken knew he had to find a way of prioritizing Sparrow's product portfolio if he was to invest the company's decreasing cash reserves optimally.

Insert Exhibits 5 and 6 here

Sparrow's Products and Organization

Up to 2003, Sparrow's scientific program was organized around developing potential products to treat serious infectious diseases arising from both viral and bacterial infections. During his time at GSK, Ken had worked as a virologist on frontier science involving major antiviral infections (such as HIV), while his co-founder and CSO Ian Charlton was a prominent molecular biologist who had long worked (also at GSK) on infections from bacterial sources. Up to 2003, Sparrow's product development efforts were focused 50-50 on anti-viral and anti-bacterial products, and its scientific capabilities were broadly divided between its chemistry and the biology groups, organized via 8 multidisciplinary project teams working on 8 different potential products. Each project team was headed by a project manager and composed of a multidisciplinary team of scientists assigned to the teams as required. Ken ensured that Sparrow's potential products were all in market segments where potential annual sales could top £1billion ($1.6billion).

But by the end of 2003, Ken and his management team (and Sparrow's board) had become increasingly concerned at the breadth of the company's program and the rate it was spending cash. They also recognized that the environment for small drug-development companies in the UK was undergoing a sea-change. The amount of external new money available for investment in small firms was being squeezed: both the UK's venture capital firms (until now Sparrow's main source of finance) and the sums they invested were

shrinking, and almost all the non-UK VC firms had withdrawn to concentrate on their domestic markets. Other finance sources were drying up too: although new stock market listings were taking place (mainly on the London AIM market[5]), their numbers were only half those of the late 1990s, and the sums raised were also less. To make matters worse, large pharmaceutical firms were shifting away from financing potential products at their earliest development stages towards more mature products that had already passed their Phase 2 (or even Phase 3) trials. This meant that smaller companies such as Sparrow had to spend more time, effort and cash to developing their potential products.

Ken knew he had to assess the speed and progress of Sparrow's different programs with a critical eye: it was clear the antiviral programs had progressed faster than the antibacterial projects (see Exhibit 7). So, by the end of 2003, although Sparrow's scientific achievements ensured it of a strong reputation, it became obvious that Sparrow urgently needed reorganizing and refocusing to meet the new environment. In simple terms, Sparrow had concentrated its efforts to date on making good science, henceforth it was going to have to make sure it made good money, too.

Insert Exhibit 7 here

Reorganization and refocus 2004 - 2006

By early 2004, Sparrow's main success had been in advancing its two leading potential antiviral products, the first of which was approaching the clinical trial stage (see Exhibit 7). Ken's new strategy involved focusing Sparrow on developing potential products in the antiviral area and shelving the company's anti-bacterial programs. This shift meant Ken parting company with one of his long-time colleagues, Ian Charlton, a co-founder of

[5] "The AIM is the London Stock Exchange's international market for smaller growing companies" (LSE at http://www.londonstockexchange.com/companies-and-advisors/aim/for-companies/companies.htm)

Sparrow, its CSO and champion of its antibacterial work. The new reorganization effectively shelved all Ian's projects, so he resigned and was replaced as CSO by Stuart Cocks, previously head of the chemistry group. Ken was devastated that such a loyal colleague, who had shared enthusiastically in his original vision for Sparrow's journey, was getting off the train - but he clearly saw it was the only way he could get the support of the board to get new cash into the business. Ken's strategy also meant downsizing Sparrow's research and development (R&D) staff (from a peak of 70 in early 2004 to about 50 by the end of 2005) and removing a whole layer of management to adopt a flatter organizational structure (see Exhibit 8). His intention was to refocus Sparrow on developing only the most promising potential products to Phase II and doing so quickly so they could be sold to large pharmaceutical companies.

Insert Exhibit 8 here

For the first time, Ken also hired a Commercial Director (Barbra Domain) whose mandate was to find potential buyers for Sparrow's products. She wrote a report – mainly to inform Sparrow's potential partners - of Sparrow's products that outlined: (1) their novel scientific characteristics and (2) their commercial potential, including the projected cost of their manufacture, their target markets' size and profiles and the associated patient treatment. Her job involved identifying and engaging potential pharmaceutical 'suitors', making presentations to them, leading negotiations with interested parties, structuring and sealing the relevant deals and then managing the on-going relationships.

Ken had bridged Sparrow's immediate cash needs by getting his existing first round VCs to invest a further £7 million ($11million) in convertible loans. But the new strategy of implementing a much more focused and leaner business model based entirely on anti-viral therapeutic compounds now allowed Ken and his management team to go out and

successfully raise cash by selling new shares, and they managed to attract some £16.4 million ($27 million), largely from a fresh crop of VC investors. The new funding involved some complex deals, with the existing and incoming VC shareholders agreeing to share special control rights over Sparrow's future direction. The incoming investors appointed two new directors, shifting the balance of power firmly into the financiers' hands: they now had five board seats, with only four directors representing other interests (see Exhibits 3 and 4). The new board agreed to award some shares to management (as a share option scheme) on condition Sparrow reached its targets (refer to Exhibit 3). A key factor in Ken's success in raising this new capital was his pledge to succeed in a sector where Sparrow was well ahead of competition.

Competition

Ken had been in antiviral diseases for most of his working life, and knew the market segment was a huge and potentially lucrative part of the infectious diseases market, worth (in 2005) about 3% of the US$ 545 billion global pharmaceutical market. Spurred by the expected growth in demand from emerging markets, the segment was forecast to grow at double the industry's projected overall 4.3% annual growth rate. Like every other UK biotech company executive, Ken also saw North America as Sparrow's primary market (it represented about 51% of the global market, as compared to Europe at about 30%), and flew to the USA on a monthly basis. Ken was also well aware of how the large biopharmaceutical companies (Pfizer, GSK, AstraZeneca, Merck, Novartis, etc.) dominated the drug industry, and that he had to assess them as potential suitors for Sparrow, either for licensing deals[6] or a trade sale

[6] A licensing deal is when a company gives another the right to commercialise its products or intellectual property

exit.[7] A suitable match would have to have an interest (and maybe some competence as well) in the infectious disease area, and Ken asked Barbra Domain, his new Commercial Director, to work on assessing potential suitors.

Barbra had found that most large pharmaceutical companies' anti-viral programs had failed and been discontinued, and that most of the competition in the sector was from other smaller biotechnology companies or university-based research programs. Her report outlined a total of 36 programs globally, of which half had been discontinued and the rest were at least one stage behind Sparrow's equivalent programs. Ken felt none of its competitors were financially strong enough to make them attractive as merger candidates or partners, and that Sparrow would have to generate some money through its own licensing strategy to avoid diluting its investors' shareholdings any further.

The Novartis Licensing Deal

Although Sparrow's refocusing only slightly lessened the rate at which it spent cash (as the financial statements in Exhibits 5 and 6 show), it did lead to it making faster scientific progress. By the end of 2004, Sparrow was seeing positive results: its lead potential product (designed to combat Respiratory Syncytial Virus (RSV) lung infections) had completed its Phase 1 trials successfully and was scheduled to start Phase 2 in 2005, after which Ken intended to license it for cash to a large pharmaceutical company. But the cash investment needed to get a potential drug through Phase 2 trials (see Exhibit 2) was more than Sparrow could bear, so Barbra started looking for potential partners straight away, rather than waiting until Phase 2 trials were completed.

Ken judged that a licensing deal with a reputable biopharmaceutical company would send positive signals about Sparrow's work into the market, helping attract other such deals

[7] A trade sale exit is when a company is bought by another, thus allowing its shareholders to recoup the capital they have invested.

in the future. At the same time both he and his co-founders were keen to raise funding through such deals rather than selling more shares, which would have reduced their percentage ownership yet further. Although Barbara engaged numerous large pharmaceutical companies, only Novartis - motivated by the chance to enter and learn about a new therapeutic area - made a quick and serious offer that met Sparrow's criteria. Ken was keen to wrap up the deal quickly too – which he did in mid 2005 - because Sparrow needed the money on offer: £6 million ($9.6 million) upfront, with up to £150 million ($140 million) in potential progress payments (which would fund the project's future clinical trial costs) and potentially very much more in royalties to be paid on an agreed percentage of future revenues when the drug reached the market.

While Ken was happy with the licensing deal for the RSV compound, cash was still needed to fund the development of other promising projects, which were close behind RSV and could supply more cash once licensed. One of Sparrow's two potential drug products targeted at Hepatitis C (a major disease) was entering Phase 1 trials, and the pipeline also contained two other product development programs at earlier stages. Ken estimated Sparrow needed to be able to invest a further £15 to £20 million ($24 to $32 million) in these products before another license deal could be made, but that the potential rate of return on this investment was excellent, as the company might double in value if these milestones could be reached. But it didn't look as if this cash would come from the investors currently on the Board – if anything, the opposite seemed more likely.

Investor Pressure to exit

Indeed, far from adding to their financial input, by late 2005 some of Sparrow's earlier VC investors were keen to cash in their stakes, and their board representatives pressured the rest of the board (and Ken and his management team) to use the momentum from the Novartis

deal to find a way for them to exit. The more recent investors, although not in any real hurry, also wanted the Board to define a clear exit strategy, while Sparrow's founders and oldest angel investors also saw the value of delaying, as Sparrow's product portfolio was still relatively immature. Ken categorized their motives and interests more specifically:

- As Exhibit 3 shows, Sparrow's **1st round Venture Capital investors** still owned about 45% of the company. They had been with Sparrow for nearly 5 years, and Ken thought they simply felt 'tired'. But he also knew they were under external pressure to exit (as the funds where they sourced their money were maturing and needed to return cash to their own shareholders). So this group would find it hard to justify staying longer unless the rate of return was really attractive – for them speed of exit was more important than the actual cash they could realize from their shares.

- In contrast, Ken thought that Sparrow's **2nd round VC investors** (who had only recently come on board, and owned about 32% of the company) were relatively more open to putting more money into the company to get its other potential products to their later development stages, which would raise Sparrow's value very significantly - perhaps doubling it in two years. But they were equally open to selling their shares if an attractive cash offer came in - their main interest was in achieving high returns to cover the investment risks they had taken.

- Ken knew that his **co-founders and business angels** were all worried that drawing in further equity funding would reduce their percentage ownership. Exhibit 3 shows that even Ken owned less than 1% of Sparrow by now: its original 43 business angels' combined share had dropped below 10%, and Ken knew they did not have the financial strength to buy new shares to increase their stakes. But he wanted to repay the loyalty they had shown Sparrow since the early days. This group recognized that

an exit could bring much needed new cash into the company – but only if any new shares sold at high prices, which meant Sparrow had to be more highly valued than it currently was. This could only happen if Sparrow had more time to get its drug candidates to a more mature stage – which, in turn, would take more cash. And – as a founder-scientist - Ken also wanted to ensure Sparrow retained its autonomy and independence, to safeguard his mission to take its projects to the world's drug markets.

Given these diverse interests, it was not immediately clear to Ken which strategic exit option, and which timing, would be the best for all concerned: the company (which he saw as including not just its mission, but also the interests of its employees) and its investors – who now also controlled its board.

The Options by June 2006

For the past year, Ken had worked with Barbra and the CFO Ian Phelps on exploring various options to find an exit solution that would be acceptable to all stakeholders. They could either sell Sparrow outright to a larger pharmaceutical company for cash as soon as possible or list the company on a public stock exchange via an initial public offering (IPO) within the coming year, so allowing investors to sell their shares as they wished. They could also delay the exit for two years in the hope of increasing (perhaps doubling) the company's value, so making any subsequent flotation or sale more successful.

A possible sale?

During the past year, Ken and Barbra had engaged with a number of large pharmaceutical companies to gauge their interest in licensing Sparrow's products. Exhibit 9 below lists those that had shown an interest by mid 2006.

Insert Exhibit 9 here

AstraZeneca was one of several that had expressed an interest: it wanted to enter the antiviral market area (where it had no presence at the time) and believed Sparrow's antiviral programs offered a good fit with its existing strategy, complementing its established expertise in gastrointestinal and respiratory areas. As the discussions proceeded, Ken realized that Sparrow was a very good acquisition opportunity for AstraZeneca, who would be buying a company with considerable expertise in an area where they had none. AstraZeneca quickly understood the type of deal Ken was looking for: one that offered a quick and reasonably lucrative exit for those investors who wanted out, but also gave Sparrow continued operational security - and offered an outright acquisition at what they believed was a fair valuation and on good terms, plus the promise of enough future operational cash and continued autonomy, allowing Sparrow to go on developing its programs and giving its employees job security. Ken's only worries were whether Sparrow's main investors would be attracted by AstraZeneca's offer - and whether he should trust AstraZeneca to maintain Sparrow's autonomy.

The offer on the table was an outright acquisition of Sparrow for about £76 million ($120 million) in cash (about twice the total of £35 million that had been put into the company since 1998), so the deal offered strongly positive returns. But investors in the VC world thought a good return was 5 or 10 times the original sum invested. (In fact, they knew that relatively few investments - even in the very best VC portfolios - achieved this kind of return in reality. Indeed, most find at least 50% of their investments fail even to return their original stakes: but, to justify their existence, VC groups press for high returns so that they, in turn, can please their VC investor-owners). On the other hand, the deal was for cash – it offered Sparrow's investors zero risk: there were none of the 'conditional clauses' often

found in higher value deals. All the same, Sparrow's managers worried whether it was going to be enough. Ken knew that the valuation would be greater if the company managed to progress some of its potential products further into clinical trials, judging that success in such trials would at least double this valuation (maybe more) – although (of course) there was always the risk the clinical data might not turn out as he hoped and expected.

When Ken looked back over the past year of discussions, formal and informal, with potential acquisition suitors, he realized that very few, in fact, had expressed any serious interest. But he also realized his team hadn't really been pushing very hard to sell the company - rather, they had been holding out for better prices and terms, believing Sparrow's value would change rapidly as its drug candidate portfolio matured. But now there was a real offer on the table, could he afford to let it go in the hope of getting a better deal from elsewhere in the future? Or was going for a public listing in the medium term future a better choice?

IPO and Stock Market listing

As well as seeking licensing partners over the past year, Ken's team had invited financial advisors and investment bankers to make presentations to them on the prospects for a successful IPO. One clear message that came through was that, in terms of Sparrow's profile, the Novartis deal had done what Ken had hoped, in sending a validation signal to the market about the strength of the company's technology that could enhance the chances of a successful IPO. The advisers provided Sparrow with options for listings on the London Stock Exchange (LSE), the Alternative Investment Market (AIM) in London or the New York-based NASDAQ, but it was not clear which would suit Sparrow best because their listing criteria differed considerably. And most advisors also felt that Sparrow's prospects for getting the right valuation were only mixed, at best.

London Stock Exchange Listing (LSE)

Most of the experts who pitched to Sparrow thought the prevailing market sentiment was that new companies needed to have two to three products in advanced clinical trials to achieve a successful listing. The thinking was that companies in that position could generate a sufficient news stream about future developments to register on market analysts' radar, and thus achieve a really successful IPO on the LSE, ensuring a high market valuation of (ideally) upwards of £200 million ($320 million). The increased analyst and media attention gained by such a news stream would ensure an active market that attracted new investors, allowing those investors who wanted to sell to do so without lowering the company's share price.

Ken tried to think it through with his CFO, Ian Phelps. Ken wasn't convinced Sparrow had enough potential products in advanced enough stages to ensure a successful listing – but Ian pointed out the market could be fickle and this criteria might not turn out to be so critical. They agreed that an LSE listing might work if the market could be convinced Sparrow was likely to achieve critical mass quickly. But Ian pointed out that this meant getting financing to invest in their potential products, or alternatively merging with another company and consolidating their product lines – neither of which Ken could see happening quickly enough. The overall impression given by most of its financial advisors was that Sparrow was really a borderline case for LSE listing – while it did have a major validating licensing deal, a potential product in clinical trials phase 1 and another in advanced pre-clinical trials stage, they felt some analysts would still see this as too 'thin' a pipeline. Furthermore (and more pertinent to its VC investors' interests) an IPO would not offer Sparrow the immediate and guaranteed access to the financing it needed because of the time needed to become listed and gain legal permission to sell shares. So, overall, no clear view

emerged from the advisers' presentations as to the prospects of Sparrow achieving a successful early LSE listing.

Alternative Investment Market (AIM) listing

The feedback from the investment bankers and advisors was that Sparrow could be listed on the London AIM much more quickly, as the listing requirements are considerably lower to encourage young resource-constrained companies. Many UK biopharmaceutical companies were listed on the AIM, and it was clear that such a listing would give the company added respectability in the eyes of potential partners. But the advisors pointed out that the financing available via such smaller markets was quite limited. Ian Phelps (the CFO) thought the amount the company was looking for (at least £15m to £20m) was too large for AIM, and that subsequent offerings of shares would fail to find buyers:

> *"There is a very real risk that once you have done the* AIM IPO you may get stuck and further fund raising may be blocked*."*

The limited financing available meant an AIM listing would be very unlikely to raise enough cash to both support Sparrow's product pipeline development and allow for an immediate exit for its investors. Ken, who knew the USA market well, wanted to consider options there as well and look at the prospects for listing on the NASDAQ index that had a reputation for providing financing for small and innovative companies.

NASDAQ listing

Ken believed the NASDAQ market offered the significant advantages of being bigger and more established than AIM, as well as of being reputed to have more experience dealing with biotechnology companies. However, the financial advisers who pitched to Sparrow were anxious that, as there were many such small companies in the USA, providing the adequate

and constant levels of news flow needed to gain analysts' attention might be difficult: they feared Sparrow would just end up as a small fish in the big NASDAQ pond. Barbra pointed out a strategy that might mitigate this problem:

> "Another route of getting a foothold in the USA market could be through an M&A[8] with another company already listed on NASDAQ"

Ken and Barbra had done a lot of work to explore this option, and had identified an opportunity - a NASDAQ listed US based company with plenty of cash that had recently experienced a disappointment with one of its products at the clinical stage, and so needed to augment its pipeline. Sparrow - an unlisted company with a pipeline of good prospects and needing cash - would be a good potential fit. Barbra explained how far negotiations about a potential deal had progressed:

> "We have gone a very long way down the track on M&A discussions. We have basically discussed all the integration issues we are going to face. We have taken a very good look at the cultural differences, how the management structure was going to be organized, etc. We have talked about the valuation negotiation which of course was a very difficult part."

But Ken realized the integration problems would be substantial: two potentially explosive issues these negotiations highlighted were how to deal with declining shareholding percentages, and the fact that each company would view the other's assets a lot less positively than their own, making it more difficult to achieve agreement as to which goals should drive value going forward. The cultural differences were also considerable: Ken and his team valued their autonomy to drive Sparrow's future strategy, and negotiations revealed this

[8] An M&A refers to mergers and acquisitions and is a general term used to refer to the consolidation of companies. A merger is a combination of two companies to form a new company while an acquisition is the purchase of one company by another in which no new company is formed.

might not be guaranteed. So Sparrow had to seriously consider other options - finding ways to keep going.

Delay considering either exit option for at least two years

Ken knew the only way of resisting the pressure to provide an immediate exit was to increase the value of the company considerably. Sparrow's next program (Hepatitis C, which was due to complete its clinical trial Phase 1 in late 2006) was in a potentially exciting area, and would give the company a major uplift in value if it could get through to the next stage. The company also had a second Hepatitis C program running about a year behind the first in development terms, and each of these projects was potentially more exciting than the drug Sparrow had licensed to Novartis. If both of these drugs came through their upcoming trials, it was not unreasonable to think that Sparrow's value would double within 2 years: set against the additional development costs involved (some £15 - £20 million) this increase in market value would represent a remarkably good rate of return. From a corporate finance standpoint, the case was most clearly in favor of delaying a sale or floatation to give Sparrow a chance to capture this value. The obstacle, of course, was lack of cash. Ken was also keen to consider financing routes that avoided selling more equity, not least because he did not want his own percentage shareholding to decline even further. One such option was to license Sparrow's Hepatitis C programs to regional firms.

Licensing to regional firms?

Ken and Barbra had explored the idea of raising cash by licensing its potential products in Japan and the wider Asian market, while retaining commercialization rights for the prime healthcare markets (Europe and the USA). Barbra had gone into quite advanced discussions with three Japanese companies with a view to doing such a regional deal, and had reported

that this route would raise perhaps between £5 and £10 million ($8 to $16 million) cash up front, which Sparrow could use to develop some of its potential products past some critical clinical milestones, as well as yielding future milestone and royalty payments. But this amount still fell at least £10 million short of Sparrow's estimated development finance needs and the risk of losing intellectual property rights in some Asian markets also had to be considered.

Another equity funding round?

Previous board meetings had discussed the possibility of a new equity funding round, and had tentatively agreed some key commercial elements of a deal current VC investors would find acceptable. But Ken knew his co-founders and the business angels who had first invested in Sparrow considered the terms involved unfair, as they reduced their percentage shareholding ownership disproportionately. Ken also thought that, while there was a good chance he could convince the second round investors to support a third funding round, the first round VCs still wanted out.

What to do?

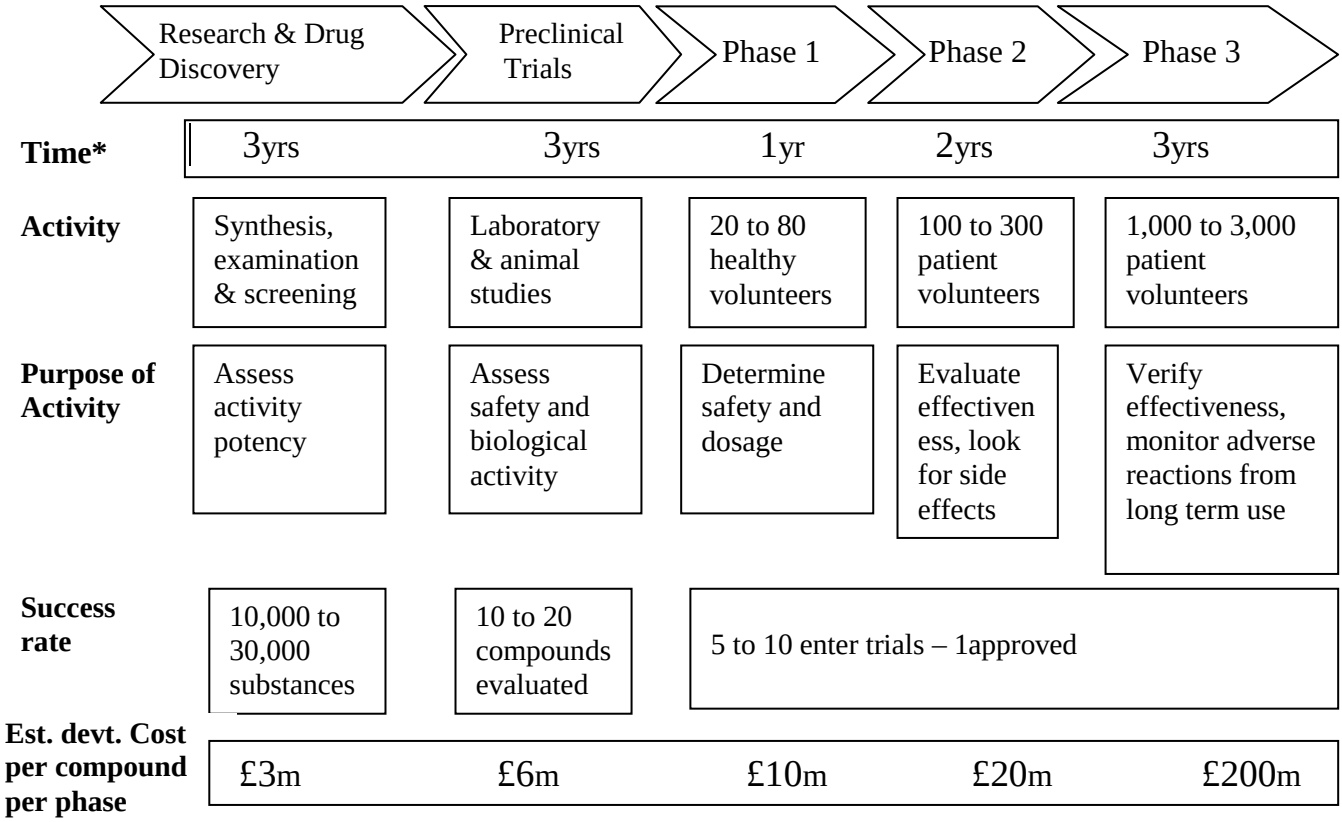
It was clear to Ken that none of these options was an obvious 'best choice' - each had its own set of challenges. But, somehow, he needed to decide which would be the best for the company, for its investors - and for him. The VC investors were split into two main camps – for the first round investors, a quick, cash exit was a priority, while the second round investors (and the original business angels) would probably go for whichever option gave them the best return. Ken also had his own managers (some of them – like him - investors themselves) to think about: and they weren't keen on a further private funding round, as their current investors were proving very demanding.

So - what should he choose?

Exhibit 1: Founder's Round and Management team

Founders	Vocation	Expertise	Short bios	shares	% owned	Value
1 Ken Powers	Professor; CEO	Virology	Formerly Head of antiviral research at GSK and founder of two previous small biotech companies. CEO of Sparrow at founding.	3,500	8.97%	3,500
2 Ian Charlton	Professor; CSO	Genetics, Molecular Biology	Professor of Molecular biology at University College London, previously Head of Molecular pharmacology at GSK. Appointed Chief Scientific Officer and Executive Director in 2000.	3,000	7.69%	3,000
3 Jim Sable	Research Scientist	Cancer	Had extensive drug discovery experience in HIV inhibitors and anti-cancer research. Appointed as first Project manager in 1999.	3,000	7.69%	3,000
4 Alastair Hops	Professor	Molecular genetics	Professor of Molecular Genetics at University of Newcastle and an expert on the structures and functions of microbial enzymes. Sparrow outsourced some work to his laboratory.	2,500	6.41%	2,500
5 Dave Summers	Professor	Bacteriology	Professor at the Veterinary School at Cambridge University with extensive pharmaceutical experience applying structural biology information. Sparrow outsourced some work to his laboratory.	2,500	6.41%	2,500
6 University College London	Technology Transfer Office	Technology commercialization	The UCL TTO is part of UCL and is responsible for the commercialization of all university intellectual property	1,500	3.85%	1,500
7 Newcastle University	Technology Transfer Office	Technology commercialization	Newcastle TTO is part of Newcastle university and is responsible for the commercialization of all university intellectual property	2,500	6.41%	2,500
8 Unibio Ventures	Angel backed company	Venture seed capital	An investment company set up by two professors of medicine, two financial consultants and a prominent businessman	18,000	46.15%	18,000
9 Biotech Services	Biotech Services company	Toxicology	A biotech services company specializing in toxicology.	2,500	6.41%	2,500
Management Team						
Stuart Cocks	Research Director (Joined 2000)	Scientist	PhD in chemistry. Chemist; Inventor; Senior Group Leader in Medicinal Chemistry, GSK			
Sue Gaither	Clinical Development Director (Joined May 2001)	Scientist	PhD in toxicology. Scientist and Qualified Lawyer. Assessor at the Medicines Control Agency.			
Ian Phelps	CFO (Joined in June 2001)	Chartered accountant	KPMG specializing in the pharmaceutical sector. CFO and Head of Operations, Celltech US; CFO of Amarin			
Barbra Domain	Commercial Director (Joined 2003)	Scientist	Senior Business Development Manager at Celltech. Senior marketing, sales and commercial strategy roles. Strategic Advisory Services as a management;			

Exhibit 2: Drug development process



***years are not set in stone and may vary from company to company**

Exhibit 3: Sparrow Therapeutics funding history

	% Ownership after funding round					
	Mar-99	**Mar-00**	**Mar-01**	**Mar-02**	**Mar-03**	**Dec-04**
Founder 1 (Ken Powers)	8.09%	7.18%	3.44%			0.63%
Founder 2 (Ian Charlton)	6.93%	6.15%	2.95%			0.35%
Founder 3 (Alastair Hops)	5.78%	5.13%	2.46%			0.12%
Founder 4 (Dave Summers)	5.78%	5.13%	2.46%			0.12%
Founder 5 (Jim Sable)	6.93%	6.15%	2.95%			0.17%
Founder 6 (UCL)	3.47%	3.08%	1.48%			0.06%
Founder 7 (Newcastle University)	5.78%	5.13%	2.46%			0.10%
Founder 8 (Unibio Ventures)	41.60%	36.93%	20.53%			5.29%
Founder 9 Biotech Services	5.78%	5.13%	2.46%			0.00%
Business Angels total # 43	9.82%	19.99%	9.98%			9.62%
First round VCs			48.84%			44.6%
Second round VCs						32.0%
2002 acquisition *						3.64%
Management share options						3.3%
Financing: new cash raised £ 000s						
Paid in capital	472	574	11,106			16,408
Issue of loan stock**				3,545	3,500	

* M&A shares issued only and a not cash consideration

**Loan stock issued in 2002 and 2003 converted into paid in capital in 2004

Exhibit 4: Sparrow's Board Representation history ('B' means represented on the board)

	Mar-99	Mar-00	Mar-01	Mar-02	Mar-03	Dec-04	Dec-05
Founder 1 (Ken Powers)	B	B	B	B	B	B	B
Founder 2 (Ian Charlton)		B	B	B	B		
Founder 3 (Alastair Hops)							
Founder 4 (Dave Summers)	B	B					
Founder 6 (Jim Sable)		B					
Founder 5 (UCL)							
Founder 7 (Newcastle Uni.)							
Founder 8 Unibio Ventures Rep 1*	B	B	B	B	B	B	B
Founder 8 Unibio Ventures Rep 2	B	B	B	B	B		
Founder 8 Unibio Ventures Rep 3	B	B					
Founder 8 Unibio Ventures Rep 4	B	B					
Founder 8 Unibio Ventures Rep 5	B	B					
Founder 8 Unibio Ventures Rep 6	B	B					
Founder 9 Biotech Services							
Business Angels total # 47							
First round VC Rep 1			B	B	B	B	B
First round VC Rep 2			B	B	B	B	B
First round VC Rep 3				B	B	B	B
First round VC Rep 4				B	B		
M&A investor Rep				B	B		
Independent Director**				B	B	B	B
Chief Financial Officer			B	B	B	B	B
Commercial Director					B		
Second round VC Rep 1						B	B
Second round VC Rep 2						B	B

***Chairman from founding to 2002**

****Independent Director appointed Chairman in 2003**

Exhibit 5: Sparrow Therapeutics financial statements – income statement (in £ 000s)

for 12 months ending	Mar-99	Mar-00	Mar-01	Mar-02	Mar-03	Dec-04 (18 months)	Dec-05
Revenues		38	966	524	59	457	351
R&D expenses	199	920	2,226	4,095	6,799	16,503	5,117
Admin expenses	50	222	866	2,184	2,429	4,388	2,796
Operating profit (loss)	(249)	(1,104)	(2,126)	(5,755)	(9,169)	(20,434)	(7,562)
Disposal of lab. equipment						236	
Interest receivable	3	22	420	238	88	238	173
Interest payable	(11)	(33)	(40)	(87)	(411)	(324)	(1786)
Pre-tax profit/(loss)	(257)	(1,115)	(1,746)	(5,604)	(9,492)	(20,284)	(9,175)
Taxes (credit)				(266)	(649)	(3,021)	(1,052)
Net income (loss)	(257)	(1,115)	(1,745)	(5,338)	(8,843)	(17,263)	(8,123)

Exhibit 6: Sparrow Therapeutics financial statements – balance sheet (£ in 000s)

As at end of	**Mar-99**	**Mar-00**	**Mar-01**	**Mar-02**	**Mar-03**	**Dec-04**	**Dec-05**
Assets*							
Fixed assets	205	330	748	6,505	5,842	2,727	2,349
Accounts receivable	19	29	1,023	1,471	1,741	2,074	2,655
Cash at bank and in hand	606	284	8,221	3,900	359	2,964	3,600
Total assets	**830**	**643**	**9,992**	**11,876**	**7,942**	**7,765**	**8,604**
Liabilities and equity							
Total current liabilities	250	350	822	852	1,360	2,122	4,000
Convertible loans				3,562	7,812		
Other long term liabilities	365	620	84	215	366	185	5,790
Net paid in capital	472	1,045	12,113	15,702	15,702	40,019	41,498
Retained earnings	(257)	(1,372)	(3,117)	(8,455)	(17,298)	(34,561)	(42,684)
Total liabilities and equity	**830**	**643**	**9,902**	**11,876**	**7,942**	**7,765**	**8,604**

*Intellectual Property assets are not included in the balance sheets in line with UK accounting standards

Exhibit 7: Sparrow Therapeutics' Product Pipeline as at end of 2005

	Research & Drug discovery	Preclinical studies	Phase 1	Phase 2	Phase 3
Respiratory Syncytial Virus Project		2003	2004	2005	
Hepatitis C Project 1		2004	2005		
Hepatitis C Project 2 (polymerase)	2004	2005			
Herpes virus	2005				
Antibacterial Programs	2004 (shelved)				

Exhibit 8: Organization Chart

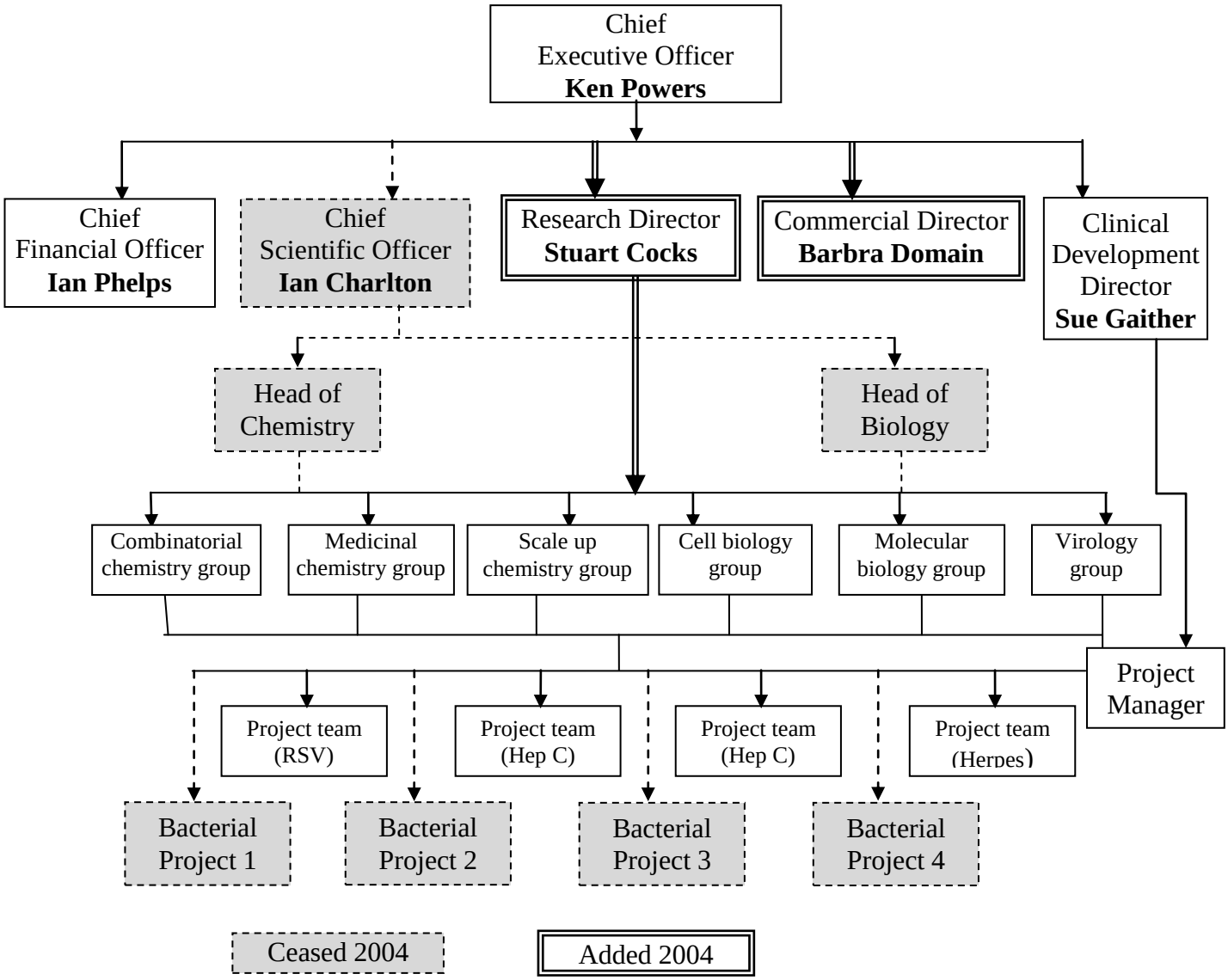


Exhibit 9: Potential suitors list as at June 2006

Firm	HQ and size (employees) in 2005	Revenues in 2005	Net Profits in 2005	Antiviral Capabilities and markets?
Pfizer	It is headquartered in New York City and employs about 115,000 people.	$52 billion	$11 billion	Yes, well represented
GlaxoSmithKline	It is headquartered in Brentford, UK and employed about 100,000 people. The company operates primarily in 116 countries and its products are sold in over 125 countries.	$38 billion	$8 billion	Yes, strongly positioned
Merck & Company	The company is headquartered in the USA and employs about 63,000 people.	$23 billion	$6 billion	Yes, strong presence
AstraZeneca	It is headquartered in London, the UK and employed about 60,000 employees	$21 billion	$4 billion	no
Sanofi-Aventis Group	It is headquartered in Paris, France and employs about 96,400 people.	$19 billion	$7 billion	no
Novartis	Novartis is a global biopharmaceutical company that is headquartered in Switzerland. Novartis employed 115 000 people or associates in 140 countries in 2005	$29 billion	$7 billion	limited