- Confidential -

Genetraks Case Study (Years 2001 to 2005)

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Quote: "The road to hell is paved with good intentions"!

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1. Introduction:

The demise of any company is a sad and wasteful event for *all* involved, but especially so for the founders and others who have invested passion, time, money, and made personal sacrifices in the hope of future success. Whilst a company's downfall provides one of the best opportunities for professional and personal growth, it is not an event I would wish on anyone. I therefore provide the following information in this 'case study' for two important reasons – the first, to some degree, to provide an insider's view of a very public event in the biotechnology community, as objectively as possible (the truth is, after all, more instructive than rumour), but secondly, and more importantly, to constructively assist other entrepreneurs (and potentially VCs) on their paths to success in the commercialization of high technology in Australia.

All the founders, Directors and venture capitalists involved in Genetraks need to take some responsibility for the company's demise and to pro-actively ensure that such an event is avoided in the future, wherever possible. However, whether we like it or not, there will still be further company failures - start-ups will always be high risk and the probability of success less favorable than we would like.

The comments I make below are, of course, made with the wisdom of hindsight but, with support from the biotech community, we can all work to put these lessons into play for more positive future outcomes for all of the Australian entrepreneurial community.

I am a veterinarian, so like any clinical diagnosis of an illness (!), I discuss below the following:

1. What we did *right*
2. The *symptoms* which should have been heeded, and
3. The *root causes* for the company's demise.

Items 2 and 3 above are not the same!

2. Genetraks in Brief:

This venture was very high risk – in every sense – market, technical, financial, execution and management. The Genetraks group, comprising four companies including one in the USA, commenced in November 2000 and was established to develop and commercialize health and monitoring blood tests for performance horses initially, and then for human athletes. The three founders were all members of one family. The tests were based on gene expression technologies which were attracting serious attention in human medical research in the northern hemisphere (USA and Europe) in particular. The ultimate aim was to market a point-of-care device which could be used by veterinarians track-side and which would help veterinarians and trainers by providing more scientific information on the status of the horse's condition, particularly its immune system. Australia is a leader in Thoroughbred racing and breeding and is recognized for its expertise world wide. The largest market for the products is the USA where over half the world's horses reside and where the equine industry is larger than the motion picture industry. Extensive market research was conducted in Australia and internationally and the need was confirmed. However, it was a market which needed to be made, rather than one that involved taking a percentage share of an existing market. By August 2005, Genetraks had 14 Australian FTEs and 2 US FTEs. It had an extensive *potential* product development pipeline but, to transform intellectual property into products the market would buy, required a significant amount of further capital. We established a large number of high quality international alliances for technology and market development. After deferring an ASX listing in late 2004, and the resignation of the CEO in August 2005, the company was unable to raise further equity capital in the USA and was finally placed into voluntary administration in December 2005.

3. What we did right[1]:

- Most importantly, despite the business starting as family-owned, we managed to keep our marriages and family relationships intact throughout the company's history. No business is worth more than one's family.

[1] We should be measuring success on revenues, profitability and products in the market – not how many spin-offs or how much money has been raised. Business is business, and until we have product in the market with customers paying for those products, we don't have 'success'. Let's be real! What is the return on our investment?

- We truly believed in the business concept and brought mountains of passion, perseverance and energy to the task – which in the scheme of things is half, (but only half!) the ingredients for success.
- We identified and targeted a niche opportunity in an industry in which Australia excels and is globally recognized (performance horses). We believed this was an advantage because we may have been able to sustain the business in Australia for longer and keep costs lower.
- We engendered strong team spirit amongst our Australian staff. The majority of the people were truly world-class with fantastic attitudes to life, their work and the pursuit of excellence. All have since gone on to exciting new roles in good businesses.
- We kept our initial costs of business down by locating in a technology incubator – iLab (Toowong).
- We initially raised $500,000 in seed capital through an incubator - ADI (now Jolimont Ventures, Melbourne, a VC - Nanyang Ventures (Sydney) and a couple of angels (O'Kane Campbell & Associates).
- We then raised $6.5 million in a Series A[2] equity finance round to include Nanyang Ventures (Sydney), Technology Venture Partners (TVP) (Sydney), Foundation Capital (Perth), Mooroolbark Group (Melbourne), InQbator (Gold Coast) and Treve Williams (who was at the time, the Chairman of Australian Jockey Club). This round was tranched with an initial payment of $3.5 million for Proof of Concept (POC), and $3.0 million for further development of the first product.
- We secured several Federal Government grants including START Grant #1 (~ $150k), BIF grant ($250k), Innovation Partnerships grant ($250k), START Grant #2 (~ $1.2 million).
- We secured a Queensland Government grant of $18,000. (We did apply for a number of State Government Grants but were less successful here.)
- In 2003, we raised another $3.0 million in debt finance through a convertible note round (from the three VCs, as outlined above[3]).
- We had a global focus right from the start, seeking to work with the experts – no matter where they were - and identified the dominance and importance of the US market in our target industry
- The market need was - and remains - very real. However, gene expression technology may not be ideally suited for the application[4] in terms of delivery and technical time and cost – although the jury is still out on this one - see below.

[2] Please bear in mind that most of these organisations conducted months of due diligence and decided to invest in the Genetraks venture.
[3] After two further external ventures pulled-out at the eleventh hour.
[4] Some of the older technologies in new guises (proteomics) may be better.

4. The *symptoms* of impending failure (which should have been heeded):

(Note that all of these are inter-related but are only the *symptoms* of the ensuing demise of the business, rather than *causes* thereof.)

In the last 2 years of the company's life, the environment became that of an intense 'pressure cooker' resulting in the emergence of a cascade of potentially debilitating issues:

- The CEO became mentally and physically exhausted
- The once-good Board relations became strained and destructive
- The Senior Scientist became seriously ill and was hospitalized for several weeks at a critical time for the company
- Our first product development stalled
- In desperation and unwisely, strategic direction was changed mid-stream on a number of occasions, costing the organization money, and the team, their energy and trust. Some examples include:
    - Deferring the planned IPO after spending nearly $1 million and fully preparing the company for listing (including passing all the third party due diligence)
    - Product selection and focus was changed on several occasions
    - Changing technology platforms before first product was in the market (which was desirable for the future, but which was unnecessary at the critical juncture in which the business found itself at that time).
- Critical decisions were made by the CEO and the Board on the basis of 'putting out fires', rather than for the longer-term strategic benefit of the company, e.g.
    - Poor US appointments
    - Poor choices of investment raising brokers in the US
    - Poor choice of the lead venture capitalist in the US
    - Insufficient 'brutal honesty' (see below) within the company and BOD, and insufficient time for collaborative and constructive development of key strategy in the last two years.

5. The *root causes* for the company's demise:

- There was no practical experience of working with the technology of gene expression or pragmatic understanding in the company of all of what was involved in applying gene expression technology to the business concept. Early estimates of costs and times to market were therefore unrealistically low, the degree of difficulty not fully recognized, and the available technology platforms understood only from a theoretical perspective.
- There was little technological expertise in Australia (ready-to-hand) to guide the Board, investors and executives in coming up-to-speed on the technology. Genetraks was a little

ahead of its time and costs to acquire the expertise in the technology proved ultimately to be too high.

- The product-to-market path was extensively compromised. When we finally acquired the knowledge and the right expertise, and had the right scientific team, we'd already spent the money raised, had made too many mistakes, and then struggled to raise further capital to continue (the perception of throwing good money after bad.)
- The CEO was too trusting of the initial scientific management team and did not demand sufficient focus and accountability from the team on first-product-to-market. This was not a university or a patent library business, but a commercial company requiring revenues as soon as possible.
- The scientific development strategy-to-market was flawed. The technology was suited to health monitoring (using the animal as its own control), but not diagnostics – and yet diagnostic concepts were used to attempt to prove the concept. The technology was neither sufficiently sensitive nor specific for diagnostics, and remains so to this day.
- There was inadequate discipline in trial design and protocol documentation and approval. No allowance was made at the start for the need for purpose-designed trials because of the exquisite sensitivity of the technology. We tried to be cost conscious on trials by 'piggy-backing' on the trials of other researchers, but it proved to be 'penny-wise and pound foolish'. We spent too much in some areas and not enough in others.
- In reality, the capital requirements were simply too large for a venture such as this in Australia at the time, and the industry niche (performance animals) was not sufficiently attractive and/or large to interest the biotech VCs (human focused).
- The Board and CEO had no real Plan C (after Plan A – the deferred IPO, and Plan B - US VC raising) for its Series B capital raising – precipitating the collapse when the US VC[5] pulled out at the eleventh hour.
- Marketing spending and IT developments ran ahead of the bioscience developments in (false) anticipation of market entry. Consequently, money was wasted and/or insufficiently focused on the right priority of activities, especially when the bioscience developments were delayed.

6. What *I* have learned

(I cannot of course speak for anyone else as to what they may have learned)**:**

General Management:

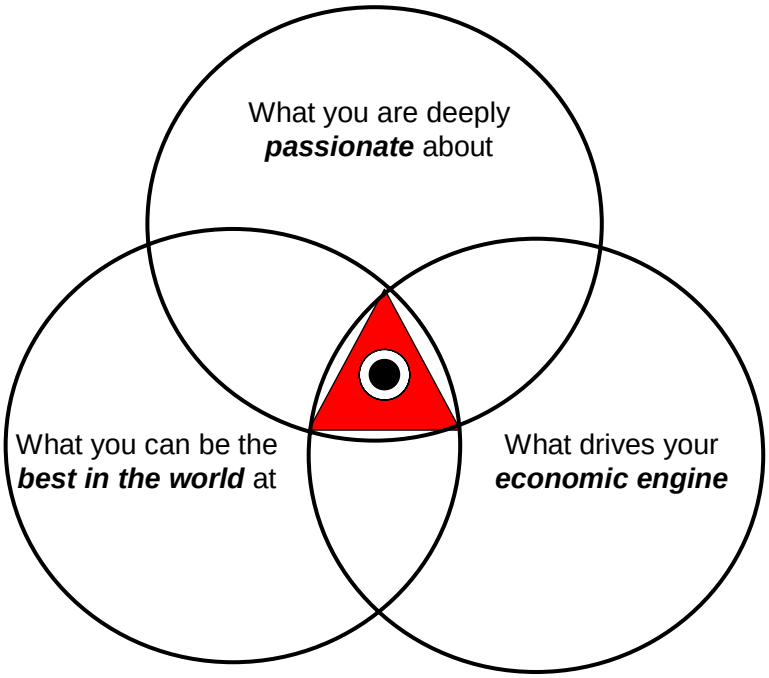
- The need for **rigorous feasibility studies** up-front, preferably with at least part of those studies undertaken by independent (third) parties. This must include market, technical and financial feasibility studies (in that order) and must provide the Board and executives with a **thorough understanding of everything that effects lead-time to market and the**

[5] This 'VC' was a poor choice, and was made at the time because there were very few other alternatives; rather than properly assessing the VC's capabilities to deliver.

sensitivities on that timeline. If we knew then what we know now, the company should never have started in the first place.

- Jim Collins's **'Hedgehog Concept'** – the need for **brutal honesty** at all times about the assessment of oneself and the company (as per the diagram below), and to be wary of hearing 'what you want to hear' and not 'what you need to hear'. Whilst passion is great, it can cloud judgment and cause closed-minded and defensive thinking. A little bit of knowledge can be a dangerous thing.

Understanding <u>The Brutal Facts</u> of Your Company's Reality*



* From: "*Good To Great: Why Some Companies Make the Leap and Others Don't*", Jim Collins, Harpers Business

- **Pay attention to those things that wake you up at night** – they are usually important.
- The critical need for an **understanding of the balance of risk and reward** as part of the initial feasibility, but also on an ongoing basis. A complete understanding of all the risks is required at all times (with contingency plans formulated and updated regularly).
- **Keep a low public profile**. Stay out of the headlines until you at least have product near to or in the market.
- Stay **humble and open-minded** about any advice that is given or offered. You can always learn from anyone and everyone.

Governance:

- **High quality governance and mentoring** is critical. Ensure that the right independent and *commercially-focused* Chairman is appointed *from the beginning* to 1.) mentor the CEO, 2.) manage the VCs and the inevitable conflicts that arise between short and longer-term interests, 3.) help construct a high quality governance team (Board of Directors) that brings specific experience to the table. Expenditure on the right Chairman is worth its weight in gold.
- Insist on **performance appraisals** (as per the AICD recommendations) for the Board as a whole and individual Directors and the CEO on *at least* an annual basis.
- Directors of the Board should be **selected for the *commercial* value**[6] each can bring to the organization's future development and success. The BOD should not make technical decisions and not determine technical strategy.
- All Directors should be required to **step-down after one year of service**. They *may be re-appointed* by a two-thirds majority for further years, but only on a year-by-year basis.
- VCs may not necessarily make good **Board members** and are ultimately faced with a **conflict of interest**. VCs are too busy (some having responsibility for up to 10 portfolio companies), focused on exits and therefore, the short-term, and may not necessarily be experienced in start-up development. As a general rule, the expectations of some Australian VCs of time to break-even in the biosciences can be unrealistic – consequently, they invest in ventures at the lower end of the risk spectrum, which may not have the same degree of longer-term reward prospect for Australia.

Product Development:

- Do not be **blindly trusting of the scientific management team.** There is a critical need to demand focus from the team on first-product-to-market and always have back-up in terms of scientific leadership, ideas and discipline.
- **Crawl before you can walk. Walk before you run.** The importance of the **first product** – it *has to be* "a humdinger" – and *all* the resources of the company need to be focused on getting product to market as cheaply and as quickly as possible.
- The importance of **not relying on just one person** for the technology developments. Opinions must be triangulated and **good debate encouraged** within the scientific ranks. You must have the scientific people on board who are experienced in the technology – that is, people who know the foibles of the technology inside-out and are *not learning as they go.* Third party reviews by a sub-committee of the Scientific Advisory Panel are recommended on a quarterly basis.

[6] Rather than persons who are representative of an organisation or fund or other stakeholder. (However, how realistic is this when a company needs capital?)

Human Resources:

- People are the greatest asset, but they must be the **right** people.
- **Hire slowly and fire quickly**. When hiring – especially overseas, use a *reputable* recruitment consultant even though it will cost you more - and *listen* to their advice.

Capital Raising in the USA:

- The ideal situation is to have an **introduction from one of your Australian VCs**. If an Australian VC (with whom the US VC is familiar) has invested in your business, the chances of the opportunity to present to the US VC are higher. If not, it is advisable to **use a reputable intermediary**. Ensure that reference checks are completed on your intermediary and, if there is some objection to reference checking, be on the alert.
- **Do your homework**. Only present to those VCs which, on the basis of your research, have invested in similar companies and technologies in the past. The VC market in the US is much larger and there are more specialist VCs who will invest in a specific type of company and/or technology (and nothing else – their criteria are rock-solid).
- **Prepare, prepare, prepare**.
- **Never agree to a payment of any up-front fees** for the conduct of due diligence. If a VC is really interested in the deal, due diligence will be conducted at their expense if the deal falls through, and at your company's expense if the deal proceeds (but rolled into the cost of the total deal).
- **Keep in touch with your 'inner voice'**. If it feels right, it's right. If it feels wrong, then do not proceed. All the logic in the world can tell you it's right, but if the inner voice is doubtful, don't do it. There is much to lose.

Goodness of Fit for Commercialization in Australia:

- If you are relying on venture capital, ***service*-based businesses in *animal* health are challenging** in respect of raising capital in the current Australian environment. Markets for animal health do not compare with those in the human, although many niche market opportunities exist and are commercially attractive. So, stick with products (rather than services) if you want an easier ride in the agbio area.
- Some bright ideas are just that – they are too expensive, too risky and too time consuming for a start-up to commercialize (in Australia, in particular). Genetraks was one.

7. Wish-List for Commercialisation of IP in Australia

- **Tax changes** at a Federal level to better encourage entrepreneurial activities:
  - Capital gains (especially unrealized gains)
  - Incorporated body tax-trap – no tax advantages flow through to owners/investors. (VCs should be allowed to spread capital losses over multiple start-ups)
  - Changes to taxation on ESOP schemes
  - Simplify GST – being paid on all transactions
- Grants ($ for $) for **high quality feasibility studies** before spin-off or start-up
- **High quality market research reports** are critical for the identification of commercial opportunities and the setting of globally competitive strategy. And yet, the cost of these reports is beyond the reach of most small start-ups. I'd like to see industry-relevant bodies (perhaps with government support?) which can house on an ongoing, updated basis, the **latest market research reports** which start-ups can then access at a fraction of the cost. I don't see enough market analysis happening; in general, I see too much 'technology-push', and not enough 'market pull' – and that **'market-pull' has to be global** – we now live in a global village whether we like it or not. (See www.the-infoshop.com, www.idc.com, www.marketresearch.com, www.ibisworld.com, etc.)
- Sizeable **funding for agricultural biotechnology** (at least a $100 million fund). The QBF excludes anything else other than human! Good opportunities are being ignored[7] that could ultimately result in sustainable Australian companies and economic advantage for this country. Australia and New Zealand (NZ) have major agricultural industries[8] – within the top two in the world in some of these industries (beef, wool, dairy). Biotechnology applications in these industries have a greater chance of sustainable application in our own domestic markets (alone) and have a great opportunity to make a significant contribution to net economic benefit for Australia and NZ (jobs, sales, profitability, critical mass of experience).
- **A more constructive attitude by all to failure**. Recognize that the very best experience in commercialization is getting in there, doing it, making mistakes – and learning from it all so that the experience can benefit the next venture. This is better than all the boot-camps in the world. (How many VCs have run a small business or succeeded in the development of a start-up?; how many *really* know what it's like on the entrepreneur's side of the fence?) Unless we radically change attitudes to failure (and success), we will lose experienced people overseas or into different industries or professions.
- **Better quality governance** of start-ups with the appointment of a high-quality Independent Chairman earlier in the process rather than later. Financial constraints in this respect should be addressed. (How?)
- Better **fund managers**; more experience in VC firms. (Just like entrepreneurs, most are learning, especially in Australia where the VC industry is fledgling.)

[7] Or, at the very least, getting insufficient support.
[8] Combined earnings from Australia's and NZ's agricultural industries approximate $120 billion.

- Greater **depth of capital for follow-on funding**[9] – no point in funding the start of a company if there is insufficient capital available through *at least some* of the same VCs for Series B, C and D etc. ASX listing occurs in Australia *far too early* because there is simply no other choice for most companies.
- **Appropriate capitalization of companies to allow the development of *real* (not imagined) global competitiveness**. Too many companies, especially some of those that are already listed (with share prices around 5 to 25 cents), can only ever struggle along because they are under-capitalized and are not likely to ever be appropriately capitalized to compete globally and move at the required speed to do so – the insufficient runway problem.
- **More collaboration and less competition** in our own country and across the Tasman. We should be banding together and looking for strategic opportunities where we can create economies of scale and globally competitive organizations.
- **…. and a footnote for VCs (and potentially the commercial arms of universities)** – leave enough share for the founders in your early pricing - it leaves them motivated; if the venture succeeds there will - all things being equal – be enough of a return kicker for you. If it fails, a larger share of nothing is still nothing!

- End -

[9] US venture funds are in the 100s of millions, and sometimes billions. (A large fund here is $A200 million?)