When should you fire the founder?

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Abstract

This paper examines the effect of founder team removal on the success of a set of 77 UK venture-backed biotechnology companies. Five measurements of success of these (predominantly private) companies are used: achieving liquidity for its shareholders, attracting further investment and further investors, company size, and how many products it managed to take into clinical trials. For all measures, early removal of the founding New Venture Team is correlated with poorer performance than retaining the founding team’s skills. The best time to remove the founding team for this set of companies is after IPO. This suggests that venture capital investors’ tendency to routinely remove founders and change CEOs on investment is damaging to their own interests as well as those of the founders concerned, and that alternative, more cooperative ways should be sought to retain founders and early executives in meaningful, effective roles in their companies to continue to harness the value that they are observed to add.

Keywords: founder, management, succession, biotechnology, IPO
the founder-managers by ‘professional’ management did not affect the productivity of high-tech manufacturing companies.

In the biotechnology industry, companies are usually founded by technical experts, but are reliant from foundation on continued injection of large amounts of investment capital to support R&D, and have to evolve quickly from research groups to commercially focused operations. Investment almost always comes from venture capital (VC), and the biotech and VC industries are closely intertwined. Management team quality is considered the most important factor in evaluating a new investment by formal and informal (‘business angel’) investors, although those with experience in industry often consider that the high quality of teams in successful companies is a result of excellent product opportunities rather than a cause of them. Unsurprisingly given this focus, venture investors play a particularly prominent role in ‘managers succession’. Hellman, examining silicon valley companies, found that VCs usually played a central role in replacing founder with an outside CEO, and that firms more than twice as likely to have a CEO turnover event (ie change of CEO) once they have VC.

Because founders do not like this much, this brings the venture capitalist and the founder team into conflict, a conflict which the VC regards as constructive at a low level but destructive if (as is almost inevitable) it becomes intense or ‘personal’. As the VC typically has a controlling equity interest in a VC-backed biotechnology company, the simplest resolution of this for the VC is to remove the founders completely. Thus in European venture-backed biotechnology companies, complete replacement of founder management and directorial roles is the usual route to management succession: ‘management succession’ is code for ‘fire the founder’, in agreement with Boeker and Karichalil’s finding that founder replacement is more frequent in firms with low founder ownership and fast growth. Management change of this sort is considered the norm for biotechnology: one European VC was quoted as saying, ‘It is certainly not inevitable that we have to change one of more members of the original management team. We have done 75 deals and we only made changes in 73 of those deals’.

Some VC investors are particularly adamant that the founder be removed from a management role in the company quickly to make way for ‘professional’ management.

Typically, the VC will bring in a new CEO of their selection fairly soon after investment. This first incoming CEO can be seen as a caretaker, someone to look after the company while it is stabilised post-start-up, the less commercial of the founders ideas are stripped out, and a management team is built up. This CEO is then removed in turn to be replaced by further management. Between them, the founders and a CEO recruited within a year of foundation are the new venture team members (NVTMs).

Clearly, firing some or all of the NVTMs does not benefit the NVTM, personally, psychologically or financially. This paper asks whether early firing of the NVTM is good for the company and its investors, based purely on whether early firing of the NVTM is associated with a financially good outcome for them. Because these companies grow fast, change business models often, and seek to reach an investor exit by IPO or trade sale in a few years from foundation, it is to be expected that the succession crises would be particularly acute for them. If conventional wisdom is correct, then failure to execute a rapid and effective succession will damage the company’s prospects significantly. VC investment aims at gaining rapid growth in the value of the investor’s shares. Steps along the route to achieving this are usually considered to be growth of the company’s technology or products, and for therapeutics discovery and development companies (the preferred investee company type) this means getting products into clinical testing. This requires substantial investment, so a third measure of success is gaining additional investment to support that growth.

If the VC conventional wisdom about the desirability of removing the NVTM is correct, we can formulate the following hypotheses

**H1:** Early dismissal of the NVTM will be positively correlated with financial success for the investors (ie a liquidity event for their shares).
H2: Early dismissal of the NVTM will be positively correlated with further venture investment.

H3: Early dismissal of the NVTM will be positively correlated with company growth, and specifically with the entry of the company’s products into ‘clinical trials’ (tests in humans).

This paper reports an empirical study addressing these three hypotheses, from the UK biotechnology companies founded between 1995 and 2002. Biotechnology companies are selected for analysis because they are uniquely dependent on investment for their initial growth. Unlike the previous work on family companies, where the management controls its own dismissal, in these companies investors control hiring and firing and as a consequence management change is not limited by the desires of the management themselves. The large majority of the UK’s current biotechnology sector was founded after 1995, and prior to 1995 data on the foundation team and early evolution of the company are often obscured by the ‘official’ corporate history. A cut-off was set at 2002 so that the effect of NVTM member dismissal has had time to become manifest in the companies. I do not attempt to formulate formal theory behind the retention or dismissal of management – here I just ask ‘did the company benefit?’

METHODS AND DATA

Companies were selected for being part of the portfolios of the most active VC investors in early stage biotech in the UK: Avlar, Apax, Abingworth, Atlas, Merlin, Prelude, Cambridge Gateway, and/or having stock tradable on a UK stock exchange. Data on the foundation, early financing history, founders, and subsequent fate of companies founded between 1995 and 2002 were collected from company websites, business plans, past company presentations, and discussions with founders. Data on IPO and subsequent stock prices were taken from the Financial Times web pages. The data set comprised 99 companies, of which 77 had sufficient data to be analysed, providing a set of 187 founders and first CEOs. The distribution of foundation dates is shown in Figure 1.

Figure 1: History of foundation and first VC financing of companies in this data set. (a) Date of foundation and (b) years between foundation and first CV investment.
Because the companies in the data set were not all founded at the same time, the rate at which events happened a specific number of years after foundation was calculated as the relative number of such events at that time compared to the total number of companies in the set that reached that age. Clearly we cannot determine how many founders leave a company in its seventh year of existence from a data set of companies founded in 2002. If, for example, in the data set only 13 companies were founded before 1997, and hence could have had founders leave the company in the company’s seventh year of existence, the fraction of founders so leaving the company at that age is the number leaving divided by 13. This corrects for the distribution of company formation dates, and shows the distribution of an event (eg founder leaving the company) as a true function of time after a second event (eg VC investment).

Roles in companies are classified according to Table 1. Membership of the Scientific Advisory Board (SAB) is not included as a separate role, as this board has no executive or directorial powers, and does not confer on its members any financial reward other than a small consultancy fee. SAB memberships are usually given to founders as a titular ‘face-saver’ after being removed from executive roles.

Error ranges in a value were estimated as the standard deviation of the value as calculated from a large number of variant data sets in which 5 per cent of the data points were omitted at random. This provides a non-parametric method for flagging distortions of averages due to extreme outlier values.

## RESULTS

### How long do NVTM stay?

Figure 2 summarises the average time that NVTM—have a significant role with the company, that is an executive function or Board membership. Clearly, founders and first CEOs of companies do not have much longevity. This agrees with Walton’s observation\(^{38}\) that the average biotech company gets through 3.5 CEOs between foundation and IPO. So turnover of the NVTM is common, and usually occurs well before the company can achieve financial success through IPO or acquisition (which is an average of around five years for UK VC-backed biotech companies).\(^{39}\) Does this turnover of key management benefit the shareholders who are usually instrumental in driving management change? The hypotheses above suggest that it does. Below, we will analyse the observed outcomes from this data set.

### H1: NVTM removal and liquidity events

I would like to correlate NVTM stay with success. ‘Success’ for a biotechnology company is, however, difficult to define. These companies seldom have revenues, even more rarely have profits. Investors in biotechnology companies do not expect to see product-sales profits for many years. For most, raising the value of their equity and then selling it is the measure of success,\(^{40,41}\) for which they need the shares to be liquid. Attaining a liquidity event is therefore the principle goal of the VC investor in biotech. For biotech, achieving...

### Table 1: Founder roles

<table>
<thead>
<tr>
<th>Title</th>
<th>Role</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
<td>In the early days this is more similar to a project manager than a conventional CEO role, with a strong fundraising role. CEO will always have a board seat</td>
</tr>
<tr>
<td>COO</td>
<td>Chief Operating Officer</td>
<td>Rarely separated from CEO in biotech start-ups</td>
</tr>
<tr>
<td>CSO</td>
<td>Chief Scientific Officer</td>
<td>The usual title for a scientific founder. CSO almost always has a board seat</td>
</tr>
<tr>
<td>Exec Dir</td>
<td>Executive Director, that is an executive with a Board seat</td>
<td>Rare in start-ups, as the only executives with Board seats are CEO and CSO</td>
</tr>
<tr>
<td>Exec</td>
<td>Executive</td>
<td>Any other senior/management executive role, without a Board position</td>
</tr>
<tr>
<td>NED</td>
<td>Non-exec director</td>
<td></td>
</tr>
<tr>
<td>NED+SAB</td>
<td>Non exec director and Scientific Advisory Board member</td>
<td>See text for comment on SAB</td>
</tr>
</tbody>
</table>
When should you fire the founder?

Table 2 shows the average NVTM residence time for several members of the NVTM team, and several roles. The role of the NVTM is divided into any role, a ‘maximally responsible’ role (i.e., the time they were in whatever role is nearest the top of Table 1), as well as time as an executive and time as a director. There is substantial overlap between these. My objective in separating them is to be able to analyse whether removing any type of founder from any specific role early is correlated with financial success.

Founders of companies who are acquired stay with the company for a shorter time on average than those who found companies that do not have a liquidity event. In part, this is because acquisition often results in the NVTM of the acquired company leaving, in part or in whole, soon after acquisition (see Figure 4). However, this could also be because those companies that move the NVTM out of management roles are more successful, and hence more attractive acquisition targets.

A notable exception to this is the time that academic founders stay in any non-executive role. Academic founders of companies who are acquired stay longer in a non-executive role than founders of illiquid companies. This

Figure 2: Average length of stay (years) of an NVTM in a biotechnology start-up company in the UK after (a) company formation and (b) first VC investment

Figure 3: Liquidity events in the 99 companies in this data set
is quite contrary to expectation, especially as a major reason for removing a founder from a Biotech start-up is their previous academic experience, and hence presumed lack of commercial expertise.

Also contrary to expectation, all founders of companies that achieve an IPO systematically stay longer with their companies than founders of ones who have not achieved a liquidity event.

There could be two reasons for these findings.

(i) Keeping founders significantly associated with the company's future value is an effect of poorer company performance.

(ii) Competent founders found better companies and remain associated with them longer than incompetent founders, the latter being associated (briefly) with less successful companies, that is firing founders is an effect of poorer company performance.

There will of course be a component of the latter – companies that do poorly and downsize will lose founders as well as other staff. However, for the reason why keeping founders is a significant part of the reason why keeping founders is a good thing, because of the way that this effect changes as the company matures.

The impact of a founder on a successful company is expected to decline with time, as the company grows and other managers, directors and investors participate in the company’s decisions. At the start, all of the company's decisions are dependent on the NVTMs, as the company grows, others play increasingly important roles. So it is that the effect of keeping the founder, the effect of removing the founders, and the effect of changing the founder's role also would be expected to get smaller as the company expands.

Table 2: NVTM stay vs liquidity event

<table>
<thead>
<tr>
<th>Academic founder</th>
<th>Non-academic founder</th>
<th>1st incoming CEO</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time with company</strong></td>
<td><strong>Time in maximally responsible role</strong></td>
<td><strong>Time as exec</strong></td>
</tr>
<tr>
<td>No liquidity</td>
<td>6.05 (5.9–6.19)</td>
<td>5.37 (5.19–5.55)</td>
</tr>
</tbody>
</table>

Average time an NVTM member stays with a company, for companies that have achieved a liquidity event through acquisition, through IPO, or who have not achieved a liquidity event. All times are averages in years for the roles concerned. Shown are the roles for academic founders (founders who held a full-time academic position prior to company formation), non-academic founders, and the first non-founder CEO. Times are averages for all companies in each subset, with 2-sigma ranges based on likely counting errors (calculated from random omission of data-points from the calculation).
When should you fire the founder?

In summary, keeping a founder associated with the company before IPO is positively correlated with performance before IPO, keeping them associated with a company before IPO is unrelated to performance after IPO, and keeping them associated after IPO is negatively associated with performance after IPO. So we can conclude that rapid removal of the founders is not in the interest of shareholders who wish to realise their investment through an IPO.

H2 and H3: NVTM removal and company growth

Most companies in the data set had not achieved a liquidity event. For many, survival is itself a success, and these companies need continued investment to survive.\textsuperscript{19–21} The amount of funds raised is clearly a measure of success, but is also related to the needs of

Figure 4: Number of NVTMs who stay with the biotechnology company after acquisition by a public company (Solexa was omitted from this analysis as it was acquired in 2005)

Figure 5: Post-IPO share performance vs NVTM stay. Companies analysed were Alizyme, Ardana Bioscience, Ark Therapeutics, Biofocus, Cytomyx, Evolutec, Henderson Moreley, Oxford Biomedica, Pharmagene, ReNeuron, Vectura. The 12th floated company – Fluid Technologies plc – did not have sufficient founder information to analyse

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the business. As raising this capital from a wide syndicate of funds rather than from one source is seen as advantageous to reduce portfolio risk, syndication may be a more robust measure of how widely the investee company is seen as a success than the amount of cash raised.

Investors may also judge company success by growth, which for companies with no production or sales usually means growth in staff, or by progress in product development. The critical feature of product development for those biotech companies developing therapeutic products is having their product in human clinical trials.

Table 3 shows the analysis of the correlation of the length of stay of NVTM members in the biotech company data set with four quantitative measures of company success: VC money raised (either to the present day or to liquidity), the number of private institutional investors who invested in the company during its history, the number of staff at the company’s peak size, and the number of products in clinical trials for companies involved in therapeutics discovery and development. The data is analysed on a per company basis and a per founder basis, the former averaging the length of time NVTM in a particular company held their position, and the latter dealing with individual NVTM and correlating their individual tenure with the success (or otherwise) of the company with which they are associated. For comparison with the analysis arising from the data in Table 2, a fifth dummy variable of ‘liquidity event’ ( = 1 for a company that has achieved a liquidity event, = 0 for others) is included in the correlation.

The striking overall feature of Table 3 is that none of the correlations have a significant negative value, and most have a value significantly greater than 0. Generally, the correlation between success factor is greatest for an NVTM CEO, second highest for non-academic founder, and lowest for academic founder. Even for academic founders their length of stay with the company is, however, positively or neutrally correlated with all success measures.

Perhaps this is because some founders contribute positively to their companies, but some do not, and it is these founders who are removed from positions of influence by their investors. Table 4 addresses this, by analysing the average success outcome for three groups of companies – those that dispense with all their founders within four years, those that keep them all, and those that fall in-between. For the two VC investment criteria (the amount of VC funds raised and the number of investors), the ‘mixed’ group does the best. However, for the company development criteria of employees and products in development, keeping all the founders in for at least four years is correlated with better outcomes than only keeping some in, and that is correlated with better outcomes than removing all the founders.

We must therefore conclude that Hypotheses 2 and 3 above are also not supported by this data: indeed the reverse is observed to be the case.

DISCUSSION AND CONCLUSION

This study analyses whether the observed success of UK-based, VC-funded biotechnology companies is positively or negatively affected by having the founding NVTM kept with the company after foundation. Some management theory and most VC operating practice suggests that removing the NVTM soon should correlate with success, and particularly that removing the founders should enhance company progress. The evidence, however, suggests exactly the opposite. Retaining founders in a significant role – as executives or Board members – is correlated with enhanced success outcomes for the company in its early stages.

By contrast, early retention of founders does not have any significant affect on company stock performance after IPO, and retaining founders after IPO is weakly correlated with poorer stock performance of the company.

This study agrees with Busenitz et al. in finding that firing the founder is negatively correlated with company success (in their case, achieving IPO). Studying founder succession specifically, Daily and Dalton found no difference in financial performance between firms managed by founders and
Table 3: NVTM stay vs Pre-IPO success factors

<table>
<thead>
<tr>
<th></th>
<th>Per company</th>
<th>Per NVTM</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Max role</td>
<td>Any role</td>
<td>Max role</td>
<td>Any role</td>
<td>Max role</td>
<td>Any role</td>
</tr>
<tr>
<td>VC money</td>
<td>0.26</td>
<td>0.24</td>
<td>0.17</td>
<td>0.31</td>
<td>0.17</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td>(0.19–0.33)</td>
<td>(0.18–0.31)</td>
<td>(0.11–0.23)</td>
<td>(0.21–0.41)</td>
<td>(0.06–0.1)</td>
<td>(0.06–0.28)</td>
</tr>
<tr>
<td>Number of</td>
<td>0.39</td>
<td>0.34</td>
<td>0.3</td>
<td>0.34</td>
<td>0.24</td>
<td>0.22</td>
</tr>
<tr>
<td>employees</td>
<td>(0.26–0.51)</td>
<td>(0.21–0.48)</td>
<td>(0.16–0.45)</td>
<td>(0.16–0.52)</td>
<td>(0.12–0.36)</td>
<td>(0.05–0.4)</td>
</tr>
<tr>
<td>Number of</td>
<td>0.12</td>
<td>0.25</td>
<td>0.21</td>
<td>0.3</td>
<td>0.05</td>
<td>0.12</td>
</tr>
<tr>
<td>products in</td>
<td>(0.06–0.19)</td>
<td>(0.23–0.27)</td>
<td>(0.13–0.29)</td>
<td>(0.21–0.38)</td>
<td>(−0.02–0.11)</td>
<td>(0.09–0.15)</td>
</tr>
<tr>
<td>clinic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of</td>
<td>0.17</td>
<td>0.15</td>
<td>−0.01</td>
<td>0.17</td>
<td>0.02</td>
<td>0.14</td>
</tr>
<tr>
<td>private</td>
<td>(0.11–0.23)</td>
<td>(0.1–0.2)</td>
<td>(−0.08–0.05)</td>
<td>(0.1–0.24)</td>
<td>(−0.06–0.09)</td>
<td>(0.07–0.2)</td>
</tr>
<tr>
<td>investors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquidity</td>
<td>0.26</td>
<td>0.24</td>
<td>0.17</td>
<td>0.31</td>
<td>0.02</td>
<td>0.17</td>
</tr>
<tr>
<td>event</td>
<td>(0.19–0.33)</td>
<td>(0.18–0.31)</td>
<td>(0.11–0.23)</td>
<td>(0.21–0.41)</td>
<td>(−0.06–0.1)</td>
<td>(0.06–0.28)</td>
</tr>
</tbody>
</table>

Summary of correlations between quantitative measures of pre-IPO success and length of NVTM members stay. Left-hand panel – analysis of correlation of average length of stay of academic and non-academic founders and first non-founder CEO, averaged over all these NVTMs in a company, with four quantitative measures of company success, and a dummy variable representing 1=company achieves a liquidity event, 0=does not achieve such an event. Right hand panel: equivalent analysis for individual NVTM tenure in posts, correlated with the success factors for the companies they are associated with. All values are Spearman’s rank correlation coefficient figures with 2-sigma ranges based on likely counting errors (calculated from random omission of data-points from the calculation) in brackets. ‘Max. Role’ – role in which the NVTM member has the maximum responsibility of their tenure (ie the role highest up). ‘Any role’ – any executive or Board member role.
those managed by non-founders and Willard and Krueger\(^\text{16}\) came to similar conclusions. It also agrees with Ruhnka et al.'s study of management change. They found that an investor's first response to perceived 'problems' in a company was to change the management, regardless of whether the problem was the management, or management-related, and regardless of whether firing them has any effect on the problem.\(^\text{47}\) Their study found that changing the management has almost no correlation with return on investment – that is it was not productive even in the VC’s own frame of reference. This study goes further and finds, empirically, that for biotechnology such forced management change is actually damaging to companies in terms of the investor's own stake in them. From the evidence in this paper, the optimal time to fire the founders is shortly after IPO.

This study has strong implications for VC practice and therefore, given that most NVTMs have very little influence over VC practice, the choice that a company makes to accept VC control. I emphasise that this does not imply that the founder should remain CEO of a company until after flotation. As most biotechnology company founders are technical by background and inclination,\(^\text{17}\) it is not inevitable (although not unprecedented) that they will make the ideal CEO for a rapidly growing company. But there is a middle ground between ‘not being CEO’ and ‘not having any role in the company’ which is rarely explored by investors in the UK biotechnology industry, to those investors’ own detriment. This study shows that investors should, for their own economic benefit, seek to find continuing, meaningful roles for the NVTMs in their investee companies. Regarding management growth and development as a ‘fire the founder’ moment is not only damaging to the founder – it is damaging to the company they founded. I strongly encourage all concerned to seek to find meaningful, effective roles (not ‘Chair of SAB’ nominal positions) for the NVTMs, and utilise the drive, creativity and commitment that they have to add value to the new venture rather than loose this and the good will and ambassadorial functions that they can perform.

Acknowledgments
I am grateful to Simon Haworth for a balancing view of founder dismissal.

References

Table 4: Quantitative outcomes for companies grouped by NVTM stay

<table>
<thead>
<tr>
<th>Per Company</th>
<th>Number of companies</th>
<th>VC money raised (or at peak)</th>
<th>Number of employees today (or at peak)</th>
<th>Prods in clinic</th>
<th>Number of current investors</th>
<th>Exit</th>
</tr>
</thead>
<tbody>
<tr>
<td>All out in 4 years</td>
<td>10</td>
<td>11.75 (10.35 – 13.15)</td>
<td>19.5 (15.43 – 23.57)</td>
<td>0.5 (0.38 – 0.62)</td>
<td>2.40 (2.01 – 2.79)</td>
<td>0.0</td>
</tr>
<tr>
<td>Mixed</td>
<td>23</td>
<td>14.62 (13.51 – 15.74)</td>
<td>16.39 (13.86 – 18.93)</td>
<td>1.0 (0.86 – 1.14)</td>
<td>3.91 (3.48 – 4.35)</td>
<td>0.26</td>
</tr>
<tr>
<td>All in at 4 years</td>
<td>44</td>
<td>12.48 (11.58 – 13.38)</td>
<td>24.36 (20.89 – 27.83)</td>
<td>4.49 (4.23 – 4.75)</td>
<td>3.74 (3.51 – 3.98)</td>
<td>0.30</td>
</tr>
</tbody>
</table>

Quantitative success outcomes for companies grouped according to whether all the founding team had left by the fourth anniversary of foundation (‘All out in 4 years’), all the founding team were still with the company after 4 years (‘All in at 4 years’), or whether some were with the company and some had left (‘Mixed’).


