Costs and Benefits of Scientific Advisory Boards

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(For a full version of the current Forum Reporter please visit: http://www.mitforumcambridge.org/knowledge/index.html)

One of the first ingredients in the usual recipe for creating a start-up life sciences company is a prestigious scientific advisory board (SAB). Entrepreneurs will often recruit SAB members before hiring employees, leasing lab space, raising outside financing, or retaining counsel. While a dedicated scientific advisory board may provide many benefits to an emerging company, entrepreneurs should temper their expectations so as to avoid disappointment and to avoid overpaying for benefits that might not ever materialize.

A scientific advisory board is usually comprised of five to twelve distinguished scientists and physicians. (I am aware of one board that had 29 members.) Most of these advisors are university professors and researchers, or physicians at research hospitals.

As a legal matter, companies usually engage these advisors as consultants. While the business community likes to refer to this collection of scientists as a board, it is uncommon for start-ups to adopt formal charters and procedures for these groups. A scientific advisory board differs significantly from a board of directors. A typical scientific advisory board has no authority to make policies or direct management. More importantly, SAB members owe no fiduciary duties to the company and need not worry about the liability risks that are incident to being a director.

Benefits to Company

As you might suspect from their popularity, scientific advisory boards offer many potential benefits for companies.

One of the greatest benefits is the cachet of having the company associated with leading scientists in the company's field of interest. A skilled entrepreneur will leverage this association to raise capital, to recruit researchers and other SAB members, and to impress potential strategic partners. Best of all, a company may be able to reap all these benefits whether or not it ever convenes a single meeting of its scientific advisory board.

Ideally, a scientific advisory board also will provide strategic advice and critical assessment of specific research and development programs. A scientific advisory board can help the company management team filter recommendations from staff scientists. Given the huge costs of developing a product in the life sciences industry, the advice to modify or even kill a project at an early stage can be invaluable. On the other hand, a project that survives scrutiny by a reputable scientific advisory board is likely to merit further investment. Whether or not the scientific advisory board actually assesses a program, a skilled entrepreneur can promote the technical validation that may be implied from the mere existence of his or her company's scientific advisory board.

SAB members also may contribute new inventions and inspire new programs. Ideally, the scientific advisory board will meet once every quarter for brainstorming sessions and, on occasion, SAB members may develop promising new inventions, which the company will own.

Many SAB members have academic and industry connections that make them great resources. SAB members who are professors can help companies identify and recruit promising graduate and post-doctoral researchers from their labs. Subject to policies against conflicts of interest, professors also can help companies negotiate sponsored research, license or equipment access agreements with their universities. Many elite scientists will have high-level contacts with major pharmaceutical companies and other potential strategic partners.

Finally, a start-up company might want to assemble a scientific advisory board for defensive purposes. Whether or not an SAB member makes valuable contributions to the start-up, the start-up may want to prevent that advisor from working for a rival company or starting a rival company. This is especially important during the gold-rush period that commences when a new field of science first shows promise for commercial exploitation. Under these circumstances, entrepreneurs might want to "lock up" leaders in the field through non-competition, nondisclosure and assignment of inventions agreements.

Benefits for Scientists

The benefits of membership on a scientific advisory board are fairly straightforward. Start-ups will typically grant SAB members options or restricted stock representing between 0.1 - 2.0% of the company. Advisors also may receive consulting fees, often in the range of $5 - 25,000 per year, plus expenses. An advisor's association with a successful company may bolster his or her reputation. Also, many advisors value the opportunity to network with entrepreneurs, managers and investors. These contacts may help the advisor to start his or her own company someday.
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or may become sources of future grants.

Costs to the Company

The biggest risk of instituting a scientific advisory board is that the start-up company overpays for benefits that it unrealistically hopes to receive.

Regrettably, many SAB members dedicate little or no time or energy to their SAB commitments. This is partly because eminent scientists have higher priorities than their SAB duties and partly because management fails to reap the potential benefits that the scientists have to offer. Unlike scientists who are founders, scientists who are SAB members are not officers, directors or significant stockholders of the company and do not owe a duty of care to the company. Whatever the reason, many industry observers, including experienced investors, have come to regard scientific advisory boards as little more than window-dressing.

Entrepreneurs can avoid disappointment by asking SAB candidates about their other commitments and by having frank discussions regarding each party's expectations. Under certain circumstances, entrepreneurs might even talk to executives from other companies that have worked with the SAB candidate. Entrepreneurs should also be mindful of rivalries between scientists that might seep into their boards and inhibit the creativity and candor that the entrepreneurs hope to achieve.

The best way for a company to avoid overpayment for an SAB member is to be realistic about the SAB member's expected contributions and to negotiate a fair and flexible compensation arrangement. To the extent that the SAB member will be paid in stock, the grant should be small (rarely more than 1%) and the stock should vest monthly or quarterly over a period of three to four years. Also, the engagement should be terminable by the company at any time and for any reason, and preferably without any acceleration of stock vesting.

Entrepreneurs also should recognize that they will have to invest significant amounts of time and administrative resources to reap the potential benefits of a scientific advisory board. It can take weeks to recruit a scientific advisory board, negotiate compensation arrangements, reconcile conflicts with each SAB member's other commitments, and arrange meetings. Whether or not meetings of the scientific advisory board are actually convened, it can be challenging to keep SAB members up-to-date on the development of the company's research and development programs. Also, entrepreneurs should be careful not to spend too much time on updates and to reserve time at meetings to solicit meaningful contributions.

To conclude, scientific advisory boards offer many potential benefits to start-up life sciences companies. However, entrepreneurs should be prepared to invest significant amounts of time and resources to capture those benefits and should be careful not to overpay for benefits that might not ever materialize.