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Angels in Life Science America

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What happens when the FDA approval process slows down and imposes higher hurdles, when cost-reduction becomes central to the healthcare provider business model, when clinical trials and commercialization costs for medical devices and biotechnology products spiral through the roof, and when exit returns are compressed by general economic conditions and the decline of the IPO market?

Venture capital funding for early stage life science companies markedly contracts. In fact, venture capital funding for these companies declined consistently over the last few years. Even if federal grant funding for basic research increases, there will still remain the proverbial “valley of death” in funding the necessary first steps of translating research into products and ideas into companies. The emerging life sciences company must find a bridge to the development and commercialization of new life-saving technologies.

So what is a life science entrepreneur to do?

Enter the aptly named “angel investor.” More specifically, enter the new breed of investor who understands the needs and the opportunities of early stage life science companies. According to Dr. Richard D. Gill, a member of Boston-based Launchpad Venture Group, “Over the last 10



years, the angel investment community has stepped into the breach left by the venture community. At last year’s Acceleration conference held at Nutter, McClennen & Fish, Bill McPhee, a prominent life science angel investor and former venture capitalist, went one step further and declared angels as the keystone to early stage life science funding.

So why do angels do it?

According to most industry experts, angels are willing to tackle the massive risks of life science ventures because of the opportunity to reap out-

sized returns and to participate directly in a company through board or advisory roles where they can add outsize value. David Verrill, Managing Director of **Hub Angels** in Boston, points to the upside: “New England angel groups have had a big impact on local life science startups, with some significant exits recently, including SmartCells and Intelligent BioSystems.”

SmartCells, developer of SmartInsulin, is often considered the poster child of the successful angel-backed life science company. Merck paid up to \$500 million after milestone payments on less than \$10 million of invested capital, without the participation of venture capital funds.

Leveraging experience

Because of the tighter market for capital, only stronger and leaner companies are making it through the fundraising gauntlet. Said Richard Anders, Managing Director of **Massachusetts Medical Angels**, a group that focuses exclusively on life science deals: “All companies are having to tighten their value proposition, sharpen their pencils, and figure out how to make a compelling company with fewer dollars and often, for a while, no dollars. The result is stronger, more competitive candidates.”

These leaner, stronger companies are using the success of earlier ventures as their playbook. Many early stage companies rely on the guidance from angel investors, who typically can bring experience from many different entrepreneurial settings to bear on charting the surest path to success. Angels are

particularly well positioned to assist companies in adopting a lean startup methodology, offering low angel valuations, and focusing on capital efficiency using virtualization and other outsourced infrastructure models. They can often help steer a company to early market feedback from strategic partners and high-quality clinical data on comparative effectiveness early in their testing programs.

Angels often also help accelerate the fundraising process through introductions to their respective networks and assistance with the preparation for the fundraising process. Leveraging an angel’s expertise can be a critical aid to decrease the process time of fundraising and to maximize the potential capital raise to meet the high needs of life science ventures.

By working with additional angel groups and by engaging regional and national deal sharing processes, angels are able to rapidly raise sufficient capital to help companies achieve valuation milestone inflection points. Said David Verrill, “The Angel Capital Association is stimulating cross-border syndication of life sciences deals in order to find the best deals in the country, and aggregate enough angel capital to meet the financial needs at much more significant levels of funding.”

It’s not all altruistic. Angels are hedging their risks while accelerating venture development by getting actively involved in ventures, providing product and industry expertise, and serving as champions for their portfolio companies. Henry Kay, a leading life science investor with **Boston Harbor Angels**, noted: “An investor who plays in this space knows

the risks and more importantly knows the opportunity and is willing to help a startup company with personal expertise or contacts in the industry. A life science startup should look for these types of investors, typically called ‘smart money.’ They bring more than capital; they bring skills that the entrepreneur can call upon during the development process.”

But a gap still remains...

Even with the opportunities to realize huge exits, to develop life-saving technology, and to deploy their impressive array of scientific and business skills, angels are proving to be only part of the solution. For the first time in decades more dollars are being invested by angels into Internet companies than into healthcare companies. In the first half of 2012, \$123.9 million was invested by angels across 70 deals into life science companies. This represents 26.5 percent of the total angel dollars invested and 20.5 percent of the deals, and is a marked decline from the 40.8 percent of total angel dollars invested and 23.3 percent of deals in life science companies in the first half of 2011. It is not clear whether this shift in angel investing emphasis is a market correction to earlier over-funding of the life sciences sector, or if this represents a new and troubling gap in the fundraising landscape.

As this gap has appeared, other players with a vested interest in a healthy pipeline of life sciences companies have begun to respond with new and innovative solutions:

—Universities will continue to fund early research and development and to engage in commercializa-

tion efforts as a way to bolster their brands and increase their licensing revenue. Many have reacted to uncertainty about the availability of federal money by partnering with industry in massive collaboration projects around commercializing technology.

—Pharma and medical device industry giants have begun their own incubation programs, ranging from in-house venture capital, to creating stand-alone entrepreneurial enterprises, to acquiring a portfolio of options in early stage companies in exchange for distribution and acquisition rights.

—States have begun stepping into the fray. Understanding the link between new venture creation and economic development (and a stable tax base), states have increased general venture capital support (such as Massachusetts recent refunding of MassVentures). Additionally, given the “sticky” nature of life science companies and their necessity of onshoring key jobs, states have also increased funding specifically for life science companies (such as the debt programs from the Massachusetts Life Science Center).

—Entrepreneurs are likely to seek out a broader base of capital through crowdfunding as securities regulations are relaxed under the recent JOBS Act, although it is critically unclear whether obtaining such early stage capital, at possibly inflated valuations, will inhibit or reduce the opportunity to raise the follow-on capital that is required for such companies.

—Some angels are bucking the traditional tax-efficient strategy of growth capital for the risk (and

return) reducing strategy of investing in income streams generated by early medical product and health IT companies—although this is clearly a strategy that will not adequately address the needs of biotech entrepreneurs.

—For-profit life science companies may begin to have increased access to grants and program-related investments (PRIs) from private foundations, particularly as new L3C and Benefit Corporation type structures evolve.

What will happen to the angels in life science?

It is entirely possible that one result will be a realignment of expectations around angel investment returns. In a market in which broad-based public equity and debt indexes are returning tiny, if any, returns, interest rates are at historic lows, and venture capital portfolios have been in the doldrums, angels may begin to target their portfolio returns in the 15-20 percent range rather than in the 35-40 percent range. While the underlying risks of commercializing life science technologies continue to climb, it is possible that angels will adopt a higher-volume, lower-return strategy, thereby maximizing the portfolio effect of addressing risk. If so, the market for “solid doubles” will increase—which will likely favor medtech deals over biotech deals.

Venture capital participation

Additionally, angels may return to the days of actively seeking investments which will attract rather than avoid follow-on investment from venture capital firms who, at later stage valuations, will absorb

the capital requirements and risk of life science companies. Many angels have become nearly pathological in their fear of deals which require venture capital. Some fear the dilution, and others the loss of control that often comes with reconstituting the board in the wake of such venture investment. Some fear that VCs want to stay in deals longer because, unlike angels, they cannot recycle capital and thus need to maximize total returns at the expense of IRR which is adjusted for time.

Most of this thinking misses the mark in today's venture investing environment. First, percentage dilution has never been that important for minority stake investors. Only value dilution is relevant. Which of us would prefer 100 percent of a startup to 1 percent of Facebook? Second, the loss of control is natural and often appropriate. Investors should always seek control provisions that permit them to drive the company towards the goals stated during the investment process. If a company early on indicates that the strategy will be capital intensive and will seek angel and venture involvement, then angel investors should be satisfied with swapping out their appointed directors for those selected by later-stage venture capital. Such capital should be brought in by the company with the clear participation of the angels to execute such a strategy. If the angels believe that such investors and their directors will opt for deals that do not support returns for all investors, then they have made the same kind of mistakes that occur in angel deals that pay angels but not founders.

On the issue of exit timing, views among the angels differ. IRR was invented as a metric to com-

pare multiple investments with differing capital requirements and timelines. Because quality deals are harder to find, exiting quality deals early is likely to decrease total portfolio returns. The next use of the recycled cash is likely to be a lower risk-adjusted return than the existing business. However, if the existing deal is likely to stay illiquid for long stretches of time, it is hard to know, in advance, what the “optimum exit valuation” looks like for planning purposes.

Additionally, it will be important for angels to properly appreciate the relative value of new cash versus the existing asset base (consisting of human, financial, and intellectual capital). It would be inconsistent to demand very low values at the angel investing phase and then high values for the venture capital phase. One hallmark of biotech life science investing is that the efficacy and regulatory risks are the biggest risks and they exist through the clinical trial phase. Market risk, on the other hand, is often relatively easy to assess. This is very different from software or engineering type companies where “does it work” is a question that gets answered much earlier in the process, but market adoption and sales risk remains the dominant risk as the business progresses. Life science companies, and their angel investors, should expect modest but not radical step-ups in valuations as angel cash, during the proof of concept phase, is converted into intellectual capital and human capital.

One interesting outgrowth of this expectation is that angel investors might return to using a convertible debt format for such companies, with the

expectation that the negotiated discount to the next round will be the sole step-up in valuation from their original investment. By aligning expectations in such a fashion, it is possible to satisfy investor expectations while providing some increased protections of debt to the angels during the proof of concept phase. Founders, however, should assume in such a deal not that they are getting the angels to invest effectively at later-stage venture capital valuations. Rather, both the angels and the venture capital investors will be investing at the more modest POC pre-money valuation (which means angels should also prepare for the dilution impact). The upside is that the companies and angels can accelerate the investment process by not wasting time negotiating valuations, and the investment can properly be understood to be a bridge to the next phase of company evolution.

But why do companies need to fund this phase with equity? In most cases, after consuming all of the angel cash, life science ventures will continue to require significant capital to achieve regulatory approval. This capital is well aligned with venture capital for two reasons. First, the green-light/red-light nature of such risk means that the risks are very high and therefore the market will likely price the cost of capital very highly. Second, and related, unlike their digital brethren who may be generating revenue and aggressively adding full-time employees (both of which may attract lower cost financial investors), life science companies will continue to lack meaningful collateral and will therefore be poor candidates for debt financing. While, as noted above, strategic, grant, or PRI-

type capital may be attractive, there exists a far larger pool of equity financing.

Ongoing role

While deal structures, return profiles, financing terms, etc. remain unknown, it is probably safe to say that angels will continue to be a cornerstone of early stage support for life science ventures. Angels' industry and entrepreneurship experience is too valuable, their instincts and rigor in evaluating quality opportunities is too strong, and their desire to participate in the next wave of life-saving and enhancing technologies is too resilient to allow investment market conditions to remove them from the playing field. ■

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