

THE LAST WORD

FINANCING BIOTECHNOLOGY IN A RISK-AVERSE ENVIRONMENT

by Lilian S. Stern

Since October 19, virtually all biotechnology companies have been denied access to capital markets. Even companies that had the foresight (and luck) to salt away a hoard of cash pre-crash are altering their spending and burn rates, anticipating that the situation will not change in the foreseeable future. Even the usual pools of capital—research and development limited partnerships, corporate joint ventures, and contract research—seem to have run dry. And indeed, speaking from the trenches, we can confirm that suitors previously eager for marriage with biotechnology companies now—mysteriously—have to wash their hair on Saturday nights.

What galls biotech company chief executives even more are reports in the financial press that liquid assets *do* exist—and in abundance. Reasonably, biotech execs ask why these capital sources have deserted them, particularly since many companies can actually see the commercial light at the end of the R&D tunnel. The standard answer is that, in the post-crash era, liquidity is not merely risk-averse, it is risk-terrified. In our view, however, biotech companies themselves are partly to blame for the current capital crunch.

In a nutshell, biotechnology went public too soon. This resulted in a “public market” type of financial thinking that has worked its insidious effects on the entire investment community.

In 1986, Wall Street analysts began to encourage investors to back development-stage companies on the basis of traditional discounted cash flow models. The models varied somewhat, but generally they valued such companies by estimating cash flow based on the sale of products in development. These estimates, in turn, required estimates of dates of product commercialization, a posited discount (interest) rate, and, of course, assumptions about pricing, market, and market shares. The models were an immense hit on Wall Street, and enabled biotech companies to raise billions in equity capital. And investors thought they had the best of both worlds—the upside of venture capital-like returns, but from investments made using models that treated biotech companies as ordinary production operations. Corporate investors also succumbed to the allure of this model. And corporate investors, many of which ran their own internal research programs, should have known better. Moreover, biotech companies gave these analytical models their *de facto* endorsement—they thought they knew a good thing when they saw it—and everybody was happy.

When the markets were good, it was party time in the lab. Now that a dour atmosphere pervades, however, biotech companies are having a hard time withstanding public market thinking. In a critical mood, investors are

taking a closer look at the valuation models, and finding them full of holes. What if there are delays in product introduction? (At a high discount rate, delays can wreak havoc on valuations.) Where does the discount rate come from, anyway? (In general, it's an educated guess.) How is the market for an unknown, novel product determined? (Same answer.) How do you know what price the market will bear? (Same answer.) What if the company loses its patent? (All bets are off.) Et cetera. Now it becomes obvious why the sources of capital have dried up: the valuation model was fundamentally flawed.

This rigid approach ignores an essential characteristic of research—an element of the unexpected. An enormous number of practical scientific advances have been offshoots or afterthoughts of what everyone thought the real goal was. Semiconductors and freeze-dried foods were unexpected dividends of the 1960s space program, for instance. Research-oriented companies have always appreciated serendipity; in fact, they have depended on it as a rational reason for investing in the first place. When a company pours its hotly competed-for profits back into research, it finds the best possible scientists, directs the research to broad areas in which it has expertise and some market know-how, and then it waits. “Public market” investing encouraged investors to disregard surprise entirely. In effect, it caused them to invest by ignoring the real reason to be in research in the first place.

In our view, the solution to the current capital crunch now becomes simple. Biotechnology companies should go back to the basics of funding research: people first, markets second, and technology third. Viewed in this light, the case for financing biotechnology becomes almost irresistible. Biotech has successfully attracted some of the best scientific and managerial minds in the country. The technology addresses two of the largest markets possible: pharmaceuticals and agriculture. Virtually no one—not even the most hardened anti-biotech investor—disputes the technology's efficacy. Those who invest for these reasons will welcome the risk, since risk is simply the likelihood of surprise. Otherwise, they'd be in widget manufacturing.

One more point: the captains of biotech should banish their dreams of becoming enormously, instantaneously, wealthy through public offerings. Remember, it was the notoriously fickle public markets that got you into this predicament in the first place.

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