

CONTRACT PHARMA

The Business-Savvy Scientist

Where science and business converge, drug development can surge
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Scientists and Businesspeople have moved toward a balance in their perspectives. Our viewpoint begins on the science side, looking at why and how business sense has at last scaled the fabled ivory tower.

This is an issue of personally concerns for the people involved, rather than some grand scheme to make businessmen out of scientists. Of course, exogenous forces can initiate and even accelerate the process, but people make decisions about what to learn and how to adapt. And people vary naturally in their ability to adapt at all. Thus, an educational process can also be a means of selection, favoring the most eclectic.

Yet, if someone chooses a career based on a love of science, why should we expect an easy conversion to business? Only a subset of even the best scientists will gladly choose that direction. Companies must be prepared to nurture those who do without penalizing those who don't.

At the same time, without converting all scientists into business people, companies may at least teach them to speak the language. Otherwise, multi-functional product development committees risk recreating the Tower of Babel. A critical rift between company scientists and businesspeople will remain as a huge impediment to product selection, development, and marketing. As that statement implies, the rift may distort a product's entire life cycle.

Worlds Apart

In the Pharma world today, we have two very different environments where science and business interact - traditional Pharma and Biopharma. Each offers unique examples of scientists taking on commercial acumen.

In traditional Pharma, companies employ large blocs of science professionals who have historically worked apart from other functions. They are a proud group, with a long history and culture of their own inside the industry. Any movements for change that appears to threaten that club's special status is therefore swimming against a strong current. Add scientific ignorance among business people to the equation, and the club will take special offense, increasing its resistance even further. No command or control can force this herd of cats anyway it doesn't want to go.

In Biopharma, the science culture not only rules research but most often the company itself. Scientist-entrepreneurs form an entirely new class of managers, unique to biotech. They largely come in three sets: naïve of business; already competent; and eagerly learning. A fourth category consists of scientist-founders who ultimately step down (or up) and hand the company to a seasoned business professional.

I should also note that the present Biopharma model reflects the original model of the Pharma industry. From its earliest beginnings in the 19th century until the past few decades, the industry favored appointing top executives from the ranks of scientists. In many parts of the world, such as Japan and Europe, the tradition lives on.

Recently deceased Paul Janssen epitomized the scientist-CEO, and his successes may yet inspire a new generation of managers among the smaller companies of today. When his marketing people told him there would be no market for his "third-world" anti-fungal, he said "Then we'll make a market," and plowed ahead. That decision produced the product miconazole, which was phenomenally successful worldwide in humans, animals and crops.

I spoke with John Baker of recruitment firm DHR International to prepare for this column and test my own ideas on the subject. My overall goal was to compare the science and business acumen of Biopharma and Pharma executives, as well as the scientists who work for them. It turned out to be a highly fascinating and productive conversation.

IN THE PRESS

One trend became apparent as we talked: from the smallest to the largest companies, the complexion of management undergoes a bell-shaped transformation. At the small end, science dominates. In the middle, once companies have products on the market, businesspeople arrive to fill most executive positions. In companies at the large end of the scale, science expertise once again takes on a more important role - not as the primary aim, but as a key arrow in the quiver of top management.

In an inexact parallel, scientists nowadays typically grow more business-savvy as the company grows larger, then perhaps become less so again in large corporate environments. Efforts to revive or create an entrepreneurial spirit in research by reorganizing into smaller units, as have GSK and others, have yet to show clear results.

Worlds Together

Smaller may be better, but it is insufficient as a sole remedy. It does not automatically bestow a different culture; it may even serve to harden the old one into another kind of isolation. Once again, humanity trumps organization as the most critical factor. As we see elsewhere, invading people's turf and forcing new ideas down their throats can produce quite contrary results.

Another way of looking at the same idea is that biotech enterprises have more than compact size as an advantage. Their scientists are interested, a priori, in the business side. If nothing else, they want to see their own stock options rise in value. Beyond that, I believe most are infected with a true entrepreneurial spirit.

In meeting and interviewing numerous biotech CEOs, I have seen that spirit over and over. Founders talk fondly of their early days setting up the company, often relating them to some uncle or cousin who built up, say, a car dealership. Their professional pride and interest extends beyond their often-impressive scientific achievements to their own company-building feats.

Yet, they also know that there is much more than a personal business venture at stake. As a company grows, new responsibilities arrive and pile up quickly. Quite literally, as a group, biotech executives hold the future of the entire pharma industry in their hands. Ernst & Young's most recent biotech report puts it this way:

"The business strategies adopted by [Biopharma] managers and their boards of directors in 2003 and 2004 may have more influence on the next 10 years of biotech product development than either technological advancements or renewed access to capital."

A biotech executive's first exposure to business is usually raising venture capital - the part where you sell a company that does not yet exist. Then, once the company does exist, it's on to funding rounds, IPOs, and stockholder service. (There are some notable exceptions to the last two steps, where companies have grown to a commercial stage without going public.) Investment conferences provide an edifying window on how business wise - or not- the scientist-executives can be at that stage, as they pitch their presentations before the slide-numbered crowds.

Some come to the table more prepared than others; even at the earliest stages, a new breed of hybrid executives now enter the scene. On biotech employment sites these days, you will see more than a few discussions of the ideal educational path for new biotech talent: "What should I go for first - the Ph.D. or the MBA?"

Does that dilemma sound familiar? Many contractors and other small-to-mid-sized companies may identify with what I say about biotech. And perhaps the Big Pharma players will, too. The career pressure to possess science and business competencies together now affects almost everyone of authority, or ambition, in either area.

Such pressure also creates opportunity. Universities and economic incubators have been among the first to notice, responding with programs specifically aimed at increasing biotech executives' business skills. From Harvard to UC, biotech MBAs are busting out all over.

Another way of gaining business experience is to hire it. Even now, it is possible to discern a trend of ex-Big Pharma bosses moving down in scale to biotech. Paul Freiman, once head of Syntex (absorbed by Roche), now presides over Neurobiological Technologies. Ex-Sandoz Chairman Max Link sits on several biotech boards. And Jan Leschly, once chairman of SmithKline Beecham, has joined the VC crowd as the founder of the Care Capital Fund.

IN THE PRESS

Real Deal

Lest this all sound like a philosophical treatise, reaching for some abstract ideal, the ability to integrate science and business into one's thinking produces real benefits. For our purposes here, I will focus primarily on how it can positively affect drug - a.k.a. product - development.

This is one of those ideas that seems so utterly logical that they couldn't possibly work. And after encountering the real difficulties in implementing integrated drug development, some of us might see truth in that perception. Give up if you must, but what will you go back to?

Nothing remains in its purest state, if you could count on the purity of the old model, it might even work to live in the past. But in most companies - large, small, or medium - science unsullied by commercial interests no longer exists. It no longer exists even in universities, which have become even more important industry partners with the rise of Biopharma.

Some outside the industry look at that partnership and see a sort of silent catastrophe, where "pure science" has suffered its demise. Although it is too easy for insiders to dismiss those charges as nothing but nostalgia, perhaps they hold a small grain of truth. There may be some validity to the notion that when science takes a back seat to business, the proposition becomes self-limiting. Too much commercial focus can essential choke the system with too much order, sacrificing the creative chaos critical to innovation. A little more randomness, if you please...

That is why I believe, if one must lead the other, it should be science out in front. A business-savvy scientist will not stray far from the original path of science. Being wise to business means survival, not slavery.

Nevertheless (he said breathlessly), when scientists can observe, understand, and communicate with the business side in drug development, they may see a much bigger payoff for their science in the companies and in the real word of healthcare. Likewise, scientist-CEOs will have a clearer vision of their companies' place in the world.

Chief executives with scientific backgrounds can gain much from educating themselves in business. Above all, they will be better prepared to plan for their companies' growth, farther into the future. They will:

- Understand and master the continuum of financing from early to late-stage fundings;
- Look beyond financing to seek ways to accelerate company solvency;
- Achieve in-depth knowledge of company stakeholders, target audiences, and markets;
- Coordinate internal communication between business and science functions;
- Guide product development for optimum indications and market acceptance;
- Apply more effective strategies to market their company then apply what they learn to marketing products;
- Place a high value on company image and public relations starting the earliest company stages;
- Evaluate leverage and manage partnerships more effectively; and
- "Connect the dots" between scientific/technological advances and business opportunities.

Generally, the business-savvy scientist-CEO will remain curious and eager to learn from education and experience. Such a personal will tend to grow professionally as the business grows, and know when to seek more knowledgeable assistance by hiring either temporary or permanent business expertise. Perhaps most important, the person will be able to use that broadening perspective to see all functions more objectively and thereby become a better team builders and - once any team is in place - to improve communications between the different disciplines, especially science and business. Perhaps, because of their science backgrounds, they may be more effective in persuading their R&D people to adopt business perspectives.

Of course, for interdisciplinary communication to work, the business and marketing people must also move their own interests and knowledge base towards the convergence. But that is another story.....