Want a Good Partnership?

Know How to Ruin One First

by John Avellanet

One evening, during dinner with several colleagues, the topic of company collaborations and contract organizations came up. I related my own experiences as party to a failed effort and the lessons I'd learned. As our conversation continued, our late night conclusions were simple: Effective partnerships are the means by which we achieve market success, but building such partnerships is complicated. One mistake after another can quickly cascade into a company's collapse.

Here I review six ways to ruin your company with outsourced providers — whether with a development partner, contract manufacturer, or clinical research organization — drawing on my own personal experiences with a biotechnology and medical device company. That company, after making all of these mistakes, one after the other, no longer exists today. As the case study unfolds, astute readers may wonder how the company managed to exist as long as it did despite compounding poor decisions with more poor decisions. So often, our decisions do not appear wrong until their effects are seen and the underlying logic has crumbled. I hope this case study will give you the wisdom to avoid ruining your partnerships and your company.

At the Crossroads

One early summer, the management team of Cerberus Technologies Limited (CTL) met in a wood-paneled conference room. Their two-year old medical device and biotechnology startup was at a crossroads. The product development scientists and engineers, led by the scientific director and his lead project engineer, wanted to continue exploring potential refinements of their base technologies. They had recently discovered that their device could deliver nanosized particles of their chosen biologic with some degree of targeted precision. They were confident that more research and more experimentation would eventually result in a better final combination product.

What worried the chief financial officer and the company president were the terms "eventually" and "more research." Already, the company's financial backers were pushing to begin clinical trials. As exciting as the nanoscale discoveries were, the time had come to shift the company's intellectual property into commercialization.

After several weeks of lengthy, heated discussions, a compromise was reached, one that carried with it CTL's first crucial misstep.

Strategies and Tactics

The management team decided to pursue a two-pronged strategy. Further refinements and discoveries would be limited to those that could be added into the current prototype product and identified disease target. This in itself was not a bad approach; where CTL went wrong was not in the strategy but in the tactics it chose to achieve it. The lead scientist and lead engineer would direct the company's focus on further research and experimentation, and CTL would contract with a development partner to move the prototype and current biologic into clinical trials. In other words, the cart would go before the horse to market.

Lesson: Depending on your partner to deliver your ultimate bottom line is the best way to set yourself and your partner up for failure.

Competing Interests

The lead project engineer agreed to take on selection of a contracted development partner to carry out the commercialization work. This was the second error. He approached the task the same way he had approached every

problem over his career: through the lenses of an engineer. Selecting a commercialization partner was, to the lead engineer, an engineering problem to be solved. The core issue as he saw it was a potential partner's ability to deliver the necessary technological solution; the quality, safety, or efficacy issues would be taken care of by default as obvious outgrowths of the partner's technical expertise. Therefore, he concluded, only those with technical insight into the prototype device and its ability to deliver the biologic needed to be involved in partner selection. The selection team was made up of the lead engineer, one of his direct reports, an analytical chemist, and a formulation scientist.

After four months, the lead engineer presented his findings at a project review meeting. His recommendation did not sit well with regulatory affairs, quality, purchasing, or IT — all of whom first learned about the selection activities when the lead engineer introduced his potential partner recommendation with, "These are good people."

As might be imagined, the presentation tore open wounds of distrust that never fully healed between CTL's development and operational teams (regulatory, quality, finance, and so on). The development teams could not understand what they had done wrong and continued to see the roles of quality, purchasing, accounts payable, and so forth as "support." Meanwhile, quality, regulatory affairs, and purchasing promptly drafted vendor and partnership selection and qualification SOPs and rushed them through the approval process.

Lesson: Partnership selection and qualification teams need to be cross-functional and led by someone other than the subject matter expert.

Rushing to Solutions

Under the newly approved processes for selecting a partner, the lead engineer's recommended provider, which had very little experience with medical devices, biologics, or pharmaceuticals, was quickly eliminated from consideration. Having burned through a considerable amount of its monies on its earlier, now wasted efforts, CTL chose a company that could serve as both a product development partner and a contract manufacturer. This choice was the third mistake on the path to ruining CTL through outsourced partnerships.

As any executive with experience in taking a product from conception to final marketing will tell you, each phase of new product development requires a different mindset. Individuals with a background and outlook grounded in the discovery phase tackle activities very differently from those whose careers have been spent in finished product manufacturing and distribution. The same holds true for persons who specialize in the clinical phase.

Trying to force two different mindsets into one is rarely successful. CTL had seen this in its attempts to choose a commercialization partner. The lead engineer had spent his career in discovery and development, and his focus was on technical and engineering capabilities. Safety, efficacy, and product quality were secondary only that as they were outgrowths of good technology, good engineering, and "good people."

By not taking the time to conduct a postmortem on its efforts — but rather, rushing to jump in and solve the problem — CTL closed the door on any opportunity to learn from its missteps.

Lesson: There are key moments — typically presaged by a costly failure and surrounded by organizational politicking and rushed judgments — when an organization needs someone from outside to view the issues with a third set of eyes.

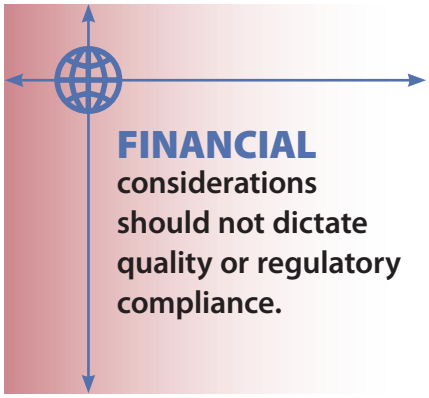
Oversight

With the combined contract manufacturer and outsourced development partner selected, the fourth and fifth steps to ruining CTL finally got under way. Because the outsourced partner was a combined developer and manufacturer, oversight was given to CTL's regulatory and quality employees who had experience in manufacturing environments.

CTL's engineers and scientists would help oversee the partner from a technical development perspective. This was a monumentally disastrous pair of decisions that just began to be glimpsed two years and 22 million dollars down the road.

Why? The choice of regulatory and quality personnel who had experience only in manufacturing and finished product distribution was a critical error for one fundamental reason: They applied the philosophy they knew — a finished-product control strategy — to a product development environment. Instead of using a more flexible, risk-based methodology with elements of quality by design, CTL placed controls on the development partner such as you find in any finished-product manufacturing site under good manufacturing practices: strict change control, detailed standard operating procedures, process validation, and so forth. Under the design control process they developed, each iteration of a device drawing was termed a "batch" as was each formulation type to be tested.

The contract developer was not used to this approach; its personnel were divided between those who dealt with development and those who dealt with manufacturing. Therefore, CTL's oversight team decided to have the partner's development personnel use CTL's standard operating procedures. Six months later, all that had been accomplished was the training of the partner's personnel, two different



engineering schematics, formulations (or "batches") identified as having clinical potential, and a host of nonconformances for failure to follow procedures. Operating through their lenses of finished product controls, CTL's regulatory and quality personnel conducted a two-month failure mode and effects analysis (FMEA) investigation under the company's corrective and preventative action process. The end recommendations were ones that had always worked for CTL's regulatory and quality personnel in the past: more training and detailing out the SOPs into step-by-step work instructions (WIs).

Lesson: Quality and regulatory compliance controls based on manufacturing do not translate into preclinical and clinical design work.

Design and Control

With the FMEA conclusions requesting more training and more process detail, CTL's scientists and engineers appealed to the management team: With all the new discoveries in the labatories, the partner could not keep up with design changes if it had to follow CTL's design control SOPs (and proposed WIs). Seeing development dollars disappearing day after day with a product launch (much less clinical trials) nowhere nearer on the horizon, the chief financial officer took up the cause.

And thus the fifth step to ruining the partnership — and CTL — came about: the decision to set aside CTL's design control. At first, a glimmer of hope appeared: a preliminary decision to use the partner's design control process. But the regulatory and quality groups continued to insist on change controls, and the management team (feeling pressure on the financial front) decided to abandon even that. Design control would be instituted on the device once it was ready to go into clinical trials. In essence, design control would be retrospective.

Lesson: When financial considerations dictate when, how, and even whether quality and compliance should be undertaken, the train is off track.

That left the final biologic formulation being developed under good laboratory practices. Rather than taking the formulation aspects back in-house, CTL management set out to find a third partner with a "ready-to-go" biologic (e.g., one that had already received a preliminary nod from the FDA to proceed to the clinic). In this way, CTL hoped to make up for lost time and, with a little luck, speed its time to market. After all, management reasoned, the device was originally conceived of (and patented) as an independent delivery platform and did not include the biologic the company had been working on for the past three and a half years.

And this gave rise to the sixth and final step in ruining the partnership: not conducting a quality review of the product before seeking a third outsourcing partner.

Cutting-Edge Amputation

Had the management team conducted a quality review of its product, the changes made to accommodate the developing nanotechnology discoveries would have come to light. Instead, when the new partner's "ready-to-go" biologic did not work in the device, another lengthy FMEA investigation concluded that the nanotech accommodations in the device were the root cause of the third partner's biologic delivery failures. By then, it was too late to do anything but shift emphasis to winnowing out the nanotech-capable components as quickly as possible to allow the third partner's biologic to work and clinical studies to begin. Design control efforts were undertaken retrospectively and focused on ensuring that the removal of the cutting-edge components did not compromise the device or the new partner's biologic.

By then, however, time had run out. Funding faded as venture capitalists lost faith in CTL's management team. Five years and more than $120 million after its conception, CTL sold its intellectual property to its development partners and closed its doors.

Fresh Lenses

The advice I pass on to my clients today comes from many of these mistakes. When a client wants to take on a development partner — whether for development, clinical or nonclinical testing, or manufacturing — I recall CTL's sixth misstep and recommend that the client conduct a mock design review and transfer before initiating any outsourced provider search.

There is a larger lesson that I have drawn from this experience as well: Each of us assumes that we make the best possible decisions given the information we have. But as this case study has made clear, we recognize information as relevant only if it is visible within the lenses we wear as a result of our backgrounds, expertise, and expectations.

If you seek an outsourced provider to help you gain the capabilities you need, take a moment and search for perspective. Ask someone without vested interest in the decision to come in with a fresh set of eyes. Ignoring the opportunity to learn from the mistakes of others presumes that you alone do not wear tinted lenses. Good outsourcing decisions come about when we seek counsel outside ourselves.

Are you ready?

John Avellanet *is principal of Cerulean Associates LLC ; PO Box 498; Williamsburg, VA 23187-0498; 1-757-645-2864; fax 1-877-322-5701; www.ceruleanllc.com; john@ceruleanllc.com.*

"Cerberus Technologies Limited" is an altered name to protect the individuals and companies involved.