A New Approach to Outsourced Drug Development:
How Sponsor-CRO Clinical Delivery Alliances Improve Performance
A perfect storm is forming within the biopharmaceutical industry. With a growing number of blockbuster drugs losing patent protection, clinical research executives are under immense pressure to bring new drugs to market. As sponsor companies struggle to replace the revenue loss threatened by generics, drug development is becoming more complex and expensive.

With more compounds in the pipeline than capital to fund their development, clinical researchers are forced to intuitively pick winners and losers without always having hard data to support their decisions. Because biopharmaceutical sponsors are focusing more on R&D, internal clinical development resources are often overwhelmed. This extends clinical trial times and shortens the window to sell brand-name drugs. Worse yet, sponsors working with multiple contract research organizations (CROs) on a project-by-project basis are challenged to maintain consistent quality and cost savings. All of these factors combine to create turbulent times for drug sponsors.

How can clinical researchers cost-effectively increase the number of drugs in their development pipeline? Is there a way to consistently increase the quality while decreasing costs and reducing time-to-market?

To address these challenges, many biopharms are turning to clinical delivery alliances. Designed to help clinical researchers increase their drug development efficiency, these high-level business partnerships modify the conventional incentive structure for conducting multi-drug development programs. Now clinical researchers can simultaneously pursue more compounds and seek regulatory approval around the world. This white paper will explore the challenges of drug development and reveal the many benefits of clinical delivery alliances.
Trends Impacting Clinical Trials

Three powerful market forces are changing the way sponsors bring drugs to market: a large number of expiring patents, rapidly rising R&D costs and the growing frequency of partnerships to identify new compounds and biologics.

More than $89 billion in brand-name drugs will face generic competition in the next five years.¹ The competition from generic drugs has increased from 42% of total prescriptions filled in 2000 to 58% in 2008.² This shift has had a dramatic revenue impact on patent holders. Within five years after patent expiration, brand-name drug prices drop an average of 61% while the number of prescriptions remains the same.³ This results in lower revenue and leaves clinical research executives scrambling for new revenue streams.

At the same time, the R&D investment required to bring new treatments to market is increasing. More than $65.2 billion was spent on pharmaceutical R&D in 2008—an average of $1.2 billion per drug, according to PhRMA.⁴ Over the last 30 years, annual R&D expenditures grew at nearly 9%.⁵ Facing shareholder pressure to cut costs, many biopharms are moving to retain intellectual property while reducing staff not essential to the R&D function and relying more on the use of CRO resources.

To further complicate matters, many biopharms are not discovering the number of compounds required to fill their drug development pipeline on their own. Large drug developers are frequently partnering with smaller pharmaceutical and biotech companies across the globe to gain access to new chemical compounds and biologics. With fewer resources, companies are re-evaluating partnerships with CROs and other service providers to build more strategic relationships.

---

² (October 26, 2009). Congressional Budget Office. Pharmaceutical R&D and the evolving market for prescription drugs.
⁵ (October 26, 2009). Congressional Budget Office. Pharmaceutical R&D and the evolving market for prescription drugs.
Challenges with Drug Development

Clinical researchers face three primary challenges when bringing drugs to market: more drugs in the pipeline than capital to test them, inefficient internally conducted trials and inconsistent quality and cost of project-based outsourcing relationships.

• More Drugs Than Capital

In traditional clinical development models, biopharmaceutical companies fund drug trials themselves. If the drug is approved, the sponsor reaps all the profits. If the drug fails, it realizes a large financial loss. Through partnerships with other drug companies and biotech firms, sponsors have more compounds in the pipeline than there is capital to test them. Thus, they are forced to pick winners and losers without adequate testing to guide their decisions.

Drugs that are not approved for testing are either divested, cancelled or delayed. This can result in missed opportunities or lost revenue due to late entry into the market. Fortunately, new options are available for sponsors to increase drugs in their testing pipeline without financially overextending themselves.

• Internally Conducted Trials Are Inefficient and Lack Global Reach

Skilled at drug discovery, sponsors have the scientific expertise but are often less efficient at running clinical trials. Sponsors may not have the in-house expertise with specific therapeutic indications, trial processes or technology required for managing the more complex trials it takes to develop new therapies. As a result, politics and infighting over available scarce resources can slow the drug development process.

Moreover, finding qualified patients for clinical trials is difficult. For example, in North America, there are fewer disease-naïve patients or those that have severe, untreated health problems. In addition, most North
Americans are satisfied with their current healthcare solution and don’t need to participate in clinical trials. Complicating this, many countries in emerging markets are protective about clinical trials involving their citizens. When sourcing patients in other parts of the world, sponsors need staff in these locations with native speakers to monitor patients in their native country. This presents staffing and cost challenges to sponsors that do not have a significant presence in these countries. This is especially true in circumstances where patients are required to keep clinical study diaries or when data needs to be accessed regularly.

Add the fact that many sponsors have significantly reduced their workforces, leaving fewer staffers to execute clinical trials. Fortunately, new options are available for sponsors to maintain their R&D focus while efficiently executing clinical trials.

- Project-Based CRO Outsourcing Lacks Consistency

Outsourcing to CROs can be a mixed blessing for many biopharmaceutical companies. While full-service CROs have the potential to streamline the clinical trial process, using these CROs for project-based outsourcing can result in inconsistent quality and unexpected costs.

Even though many CROs are on sponsors’ approved vendor lists, each project must still go through the request for proposal (RFP) process. Biopharms must often familiarize themselves with a new CRO team for each project. This eliminates the efficiencies of working with the same team. Staffing constraints can lead to project delays, lack of therapeutic expertise and often force the sponsor to micro-manage the CRO. When this happens, the sponsor invests nearly as much time and as many resources as it would if it were performing the trial in-house.

Moreover, changing CROs in the middle of a clinical trial is very difficult, leaving few options if the CRO underperforms. As a result, sponsors are often forced to accept unnecessary quality and cost variance for each outsourced project. Fortunately, new solutions exist that help sponsors realize consistently high quality and cost advantages when outsourcing to CROs.

A brief history of CRO partnerships provides further insight.
A Brief History of CRO Partnerships

In the 1980s, pharmaceutical companies partnered with universities to gain access to the computing power required to track and process the data associated with complex clinical trials. Seeing an opportunity, CROs were formed and offered biopharms access to computing resources and the ability to tap into specialized resources on an as-needed basis. While these CROs provided last-minute staff augmentation, they did not offer much cost savings. Biopharms were also less skilled at managing vendors, which contributed to high variability in outcomes.

By the mid-1990s, CROs began offering full-service outsourcing solutions for conducting clinical trials to satisfy the explosion of compounds being tested and headcount shortages at sponsor companies. With a largely paper-based FDA, CROs emerged as key resources to shepherd sponsors through the drug approval process. Full-service CROs offered global scale and an increase in quality compared to the project-only CROs of the 1980s.

However, the quality between and within CROs for different projects varied greatly. As a result, sponsors attempted to outsource different types of trials to multiple CROs based on the therapeutic specialty, geographic footprint or the service offering of each CRO. The intent was to capitalize on the best capabilities of each CRO. Unfortunately, this tactic was largely considered a failure and resulted in a vendor management nightmare for most sponsors.

By early 2000, the emergence of the European Union promised a large and centrally regulated new market. Industry consolidation created successful multinational drug development companies. CRO competition for these accounts was fierce. CROs also introduced volume discounting to respond to what was a buyer's market for sponsors. However, CRO relationships were still primarily project-based. The lack of repeatable processes still hindered CROs from delivering consistent quality over multiple projects. Sponsors continued to look for CRO partnership structures that consistently provided more long-term value.
The Answer: Clinical Delivery Alliances

Designed to help clinical research executives reduce the cost and time-to-market of drug development, biopharmaceutical companies are turning to clinical delivery alliances. These alliances offer a new go-to-market model by creating incentive-driven long-term relationships between the sponsor and a CRO.

With a clinical delivery alliance, the CRO assumes responsibility for key components of the clinical development process, including:

- Complete testing of one or all compounds in the pipeline
- Management of a therapeutic area
- Specific areas of the drug development process, such as medical writing, data management, biostatistics, etc.

Clinical delivery alliances are generally multi-year relationships in which the CRO and sponsor are both incentivized to complete the scope of work efficiently, effectively and to a high level of quality. These incentives can take the form of milestone-based payments, sharing of risk or even co-investment in assets.

Clinical delivery alliances differ from traditional CRO partnerships. By realigning CRO incentives and creating a long-term, multi-drug development partnership, sponsors realize cost and schedule benefits that were unattainable in previous CRO partnerships.
Successful clinical delivery alliances follow an alliance methodology, a standardized and repeatable process designed to ensure that all operational and governance aspects of the relationship are executed consistently and transparently for every clinical trial. An alliance methodology consists of four unique components, including:

- **Shared incentives**: CROs are compensated when they achieve key milestones or key performance indicators (KPIs). Examples include agreed-upon testing protocols, patient enrollment milestones, locked databases or delivery of final data sets. This provides an incentive to accelerate project schedules yet maintain a high degree of quality. This is not often present in project-based CRO relationships.

- **Consistent and customized reporting**: To ensure transparency and governance, clinical delivery alliances provide dashboards and detailed reports that identify risk and other issues in a near real-time fashion. This better supports issue escalation and resolution.
• **Dedicated resources:** Long-term relationships enable CROs to assign dedicated resources to each alliance partner. This synergy becomes invaluable in long-term alliances.

• **Standardized process:** Clinical delivery alliances follow a customized and repeatable process that operates across different projects, KPIs, resourcing models and incentive plans.

**Benefits of Clinical Delivery Alliances**

Benefits of a clinical delivery alliance include the following:

• Reducing costs by leveraging the CRO’s economies of scale and avoiding project-based startup costs associated with bidding and vendor management

• Increasing quality by utilizing a transparent and repeatable process across each project in the alliance

• Minimizing risk by shifting the CRO business relationships to performance-measured alliances with specific payment milestones

• Fostering alignment between sponsors and CROs by ensuring CROs have a financial stake in the trial’s success or failure

• Ensuring consistent quality by staffing trials with dedicated teams that have relevant, on-point therapeutic experience

• Improving time-to-market by eliminating the bidding process and enabling multiple drugs to be tested in parallel

• Ensuring project schedule accuracy by utilizing trusted project and alliance management tools

• Simplifying vendor management by eliminating the need to manage multiple CROs
Functional Service Alliance Example

A large pharmaceutical company found that its internal site activation functions were inefficient when measured in terms of speed, quality and cost. These functions included site contract management, regulatory document collection and electronic trial master file processing. The sponsor sought to leverage outsourcing in these areas, as they were not core competencies of its clinical development business.

As a result of developing a long-term functional alliance, the sponsor company realized significant improvements on speed, quality and cost of site activation early in the relationship. These improvements include:

- **Speed**: Half of all site contracts are now executed in under 30 days, with all agreements negotiated 30-40% faster than the industry average.

- **Quality**: The regulatory documentation discrepancy rate for investigational product releases was reduced from nearly 40% to zero.

- **Cost**: The sponsor realized a 30% reduction in direct costs through efficiencies brought by the alliance model. The sponsor additionally realized lower indirect costs through process and quality improvements, including less rework and the ability to assign higher-value staff to more critical tasks.

A functional service alliance model uses strategic commitment and performance-based measures to improve productivity in non-core service areas for biopharmaceutical customers.

What to Look for in a Clinical Delivery Alliance

When evaluating a clinical delivery alliance, consider the following important requirements:

**Trusted process**: Make sure the CRO utilizes a trusted and standardized process for managing its
drug development obligations. This contributes to expedited clinical trial schedules with the highest degree of quality.

**Customized relationship:** Seek an alliance partner willing to be creative and flexible with the terms of the business relationship. Partners with rigid business terms do not usually translate into long-term, profitable partnerships.

**Executive commitment:** Choose a partner whose senior executives demonstrate a consistent and unwavering level of involvement in the alliance. This ensures that your critical investments get the attention and oversight they deserve.

**Experience with clinical delivery alliances:** Make sure the CRO has experience executing successful clinical delivery alliances. This ensures you do not introduce unnecessary risk by using a CRO new to clinical delivery alliances.

**Dedicated resources:** Confirm the CRO has both the operations and governance staff to manage your projects as well as the appropriate leading technologies to enable teams to operate virtually. This delivers consistency that translates into higher quality, lower costs and faster time-to-market.

**Ability to manage complex programs:** Make sure that your chosen partner has the expertise to manage many complex trials in parallel. You should avoid CROs that do not utilize a balanced scorecard of the entire relationship, projects and expected outcomes.

**Therapeutically focused resources:** Verify that the CRO staffs clinical delivery alliances with personnel who have ongoing therapeutic experience. This provides you the benefit of the team's combined expertise in that area of research.

**Global reach:** Choose an alliance partner that has broad geographical coverage and local teams. This provides the flexibility and regulatory expertise to complete current and future projects anywhere in the world.

**Strong relationship management:** Seek a partner with a transparent management philosophy. The partner should have a well-tested and easy-to-understand strategy for managing the overall clinical delivery alliance.
Willingness to create mutual incentives: Find a CRO that is willing to work with you to create incentives that both share risk and motivate both parties to drive to achieve the highest quality outcome.

- Risk sharing agreements
- Financial incentives to reward effective partnering
- Alliance governance structure and dedicated alliance manager
- Performance scorecard to use in alliance management
- Regular performance reports and analysis
- Dedicated functional resources and point contacts
- Streamlined study-level operations

Figure 2. Regardless of the structure of the clinical delivery alliance, the CRO should dedicate significant resources to drive customer commitment and ensure the success of each alliance.

The INC Research Advantage

INC Research is uniquely positioned to build alliance partnerships that help sponsors improve the outcomes of their drug development efforts and meet all of the requirements outlined in this paper. By migrating to a results-based alliance model, INC Research enables its partners to increase the number of drug trials conducted in parallel without increasing overall financial risk.

A pioneer in clinical delivery alliances, INC Research applies proven best practices to structure a working relationship that drives benefits in quality, consistency, efficiency and the bottom line – far beyond what is possible in a traditional, transactional outsourcing relationship.

INC Research maintains a division dedicated to identifying, structuring and managing these unique partnerships. Divisional leaders are composed of industry veterans with expertise in process design, finance and operations, each working together to customize a strategy that meets the unique needs of each alliance partner.
At an operational level, dedicated alliance teams provide strategic expertise in pipeline management, registration strategies, compliance, due diligence and other aspects of drug development and commercialization – for the duration of the alliance. Practice leaders with deep therapeutic experience assemble a team of operational staff with specific medical and statistical knowledge and career commitment to various therapeutic treatments.

Leveraging a 20-year tradition of clinical research expertise and exclusive focus on Phase I through Phase IV trials, INC Research is trusted by nine of the world’s top ten biopharmaceutical companies. INC Research’s Trusted Process® ensures consistent quality, reduced trial variability and complete transparency in every phase of a clinical delivery alliance. Advanced alliance management systems provide real-time status of all projects and governance issues, identifying issues before they occur. This allows sponsors to enjoy an unprecedented level of visibility and predictability throughout their clinical trial programs.

With offices in 40 countries in the Americas, Europe, Africa and Asia Pacific, INC Research is well-equipped to meet the demands of today’s complex, global clinical trials on behalf of any biopharmaceutical company in the world.

Start shifting your drug development initiatives to performance-based clinical delivery alliances today. Let INC Research show you the way.

To learn how partnering with INC Research enhances the efficiency of your drug development programs, call Tim Dietlin, Vice President Alliance Development at 919-720-3884 or visit www.incresearch.com/alliances.