intertek
Total Quality. Assured.

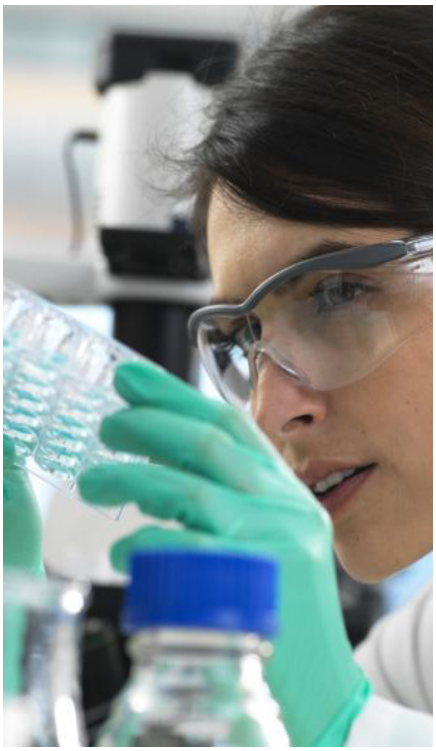
WHITE PAPER

STRATEGIC PARTNERSHIPS WITH CONTRACT LABORATORY SERVICES ORGANISATIONS

CRITICAL ATTRIBUTES AND BENEFITS

Author: Ashleigh Wake, UK Business Development Director, Intertek Pharmaceutical Services

CONTENTS



Evolution in Outsourcing

Outsourcing is an established strategy in the Pharmaceutical industry. This is nothing new. Companies are continually facing intense competition, pressure to control costs and demands on internal resources whilst striving for ever better innovation, strong pipelines, and continual performance improvement. Outsourcing provides solutions for remaining competitive and flexible in a world with a challenging economic environment where scientific knowledge is growing more rapidly than ever before, and increasingly sophisticated technologies are being developed which present game-changing possibilities.

A wide range of activities are currently being outsourced from early research (genetic engineering, target validation, assay development, lead optimization, characterisation) through to pre-clinical (safety and efficacy tests in animal models, study management) clinical (formulation, clinical trial manufacturing, clinical trials involving humans, bioanalytical services), late stage development (comprehensive characterization, formulation, stability studies and release testing) and production (auditing, batch release testing, regulatory affairs support).

There is a clear growing trend in larger pharmaceutical companies adopting a more streamlined approach to working with third parties. Consequently, outsourcing with a "strategic partnership" model with contract development and manufacturing organizations (CDMOs) or contract research organizations (CROs) becomes critical to managing the scientific innovations and resource capacity required for cost-effective, efficient drug development.

Strategic partnerships are particularly important for CMC activities throughout the development of a therapeutic drug, where pharmaceutical companies of all sizes can leverage the expertise of a CRO or CDMO relating to a specific molecule, delivery system, formulation, or technology. This is especially important in a regulatory environment, where experience as well as quality are of prime importance.

How Can We Define a Strategic Partnership?

What is a strategic partnership? In my view, this model is so much more than a transactional relationship between the sponsor (who makes the drug) and the contract organization (who tests the product) where the critical attributes of the partnership should be embodied by long-term commitment, fostering a spirit of collaboration and trust which demonstrates clear continued performance improvement and strengthens the innovator's scientific knowledge "bank". The partnership is then defined by the approach, culture, and behaviors of the stakeholders involved who strive to work together closely to help achieve the strategic goals.

Concerns and Critical Characteristics

Speak the Same Language

All communication must run freely in both directions between partner and sponsor to ensure that pre-existing product knowledge, expectations and perceptions are equal on both sides of the partnership. For example, what a partner may consider to be an insignificant historic finding could actually be a major factor in successful development of method or process, and these small details can often be the determining factor in successful development in the quickest time possible, simply because the partner does not have initial the in-depth background knowledge of the molecule, analytical methods or processes as the sponsor does.

We know through experience that strategic partnerships work best when our scientists effectively become an integral member of the sponsor's team with the shared aim of delivering quality project work to the same standards with the same passion to get, what can be life changing products, to market. Closeness is key here and regular, structured discussions, face-to-face meetings, forecasting and forward planning all play a part.

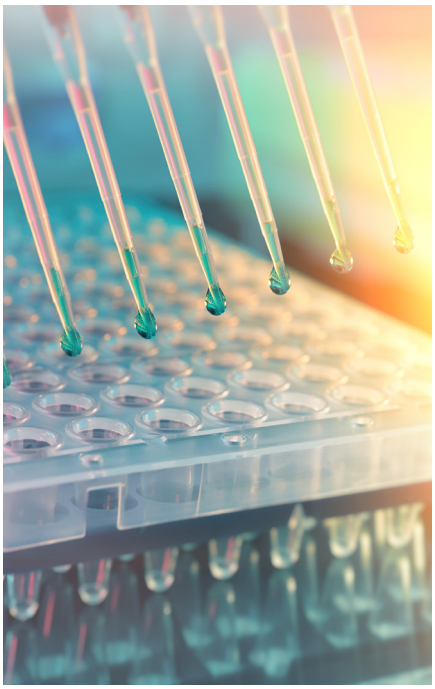
Trust and Transparency

By establishing highly transparent strategic partnerships with a team who share your values and work to the ethical and business standards expected by your business will reduce material risk associated with sharing information instances of corruption, compliance, corruption, data privacy and the environment.

Fostering a spirit of understanding involving key contacts and experts across the partnership will ensure that all stakeholders, goals, timelines, critical activities are well-understood. It is important to share past experience in both directions concerning potential or anticipated complications and identify solutions to overcome those challenges.

Commitment

Dedicated partner resources, on a flexible-term basis are required to deliver activities as required for a sponsor. More so long-term partnerships support financial investment and drive continuous and accelerated improvement. Consider, for example, analytical activities which are critical to the development path and on first observation considered "simple methods" already well-qualified, should pose no further challenge for validation – however this is not always the case and flexible, and quality-led additional resources should be made available in order to deliver at the same level of expertise whilst avoiding delays.



Another consideration is ensuring the right capacity is available at the right time. Consider a typical drug substance or drug product, these can require from 3- to perhaps over 10 individual analytical methods required to test the drug substance or drug product. In support of a release or stability testing this will amplify to 8 or 10 times the volume of assays. Close monitoring, good visibility on project timelines and close communication between sponsor and partner will certainly mitigate potential risks and strengthen the partnership generating value for all stakeholders.

Integrated Critical Issue and Risk Identification

Close integration of planning and operations between partners is necessary. Beyond sharing information and good communication, this also includes integration of processes and coordinated planning, risk identification and decision-making. If a process needs to be run a certain way – or an activity considered critical and "regulatory driving" – it not only impacts the partner's business but there is a need to assess any potential impact within the partner organisation. I believe that in positioning joint management teams internally and externally who can work to facilitate communication. This team can define "escalation paths" to joint steering committees, or to an executive steering committee level when necessary. As a team they should consider the whole spectrum of analytical activities and potential issues, anticipate and plan for options for managing them.

Data Integrity and Data Review

The FDA in August 1997 introduced 21 CFR part 11, Electronic Records and Electronic Signatures [1]. Other associated regulations include Eudralex Vol 4 Annex 11 - Computerised systems and MHRA – Guidance on GxP data integrity [2]. These were a major change in the way electronic records and signatures were utilised. The pharma sector needs to constantly assess equipment compliance to current regulations, through regular data integrity assessment reviews. This includes all types of equipment including computerised systems.

Due to the evolving requirements it is important to ensure that the partner CRO is compliant including issues associated with legacy equipment compliance or the purchase of new equipment. For legacy equipment that is perceived as critical, the appropriate measures should be implemented to mitigate acceptable and controllable risks before more permanent measures are introduced including procedural updates, electronic signatures, software updates, as well as equipment upgrade and replacement. Additionally, any new equipment purchased will need to fit seamlessly into the partner's data integrity process and be compliant to either 21 CFR Part 11 and/or Eudralex Annex 11.

We know that all data should be critically reviewed in a timely manner for inconsistencies or trends and to identify if these are analytical issues. Once methods are progressed into method validation, Quality Assurance oversight and robust standard operating procedures are invaluable. Samples may require immediate retesting or storage for possible future testing with validated methods or just recognition of the risk point if issues arise in the future.

In addition, each time a method changes ownership, for example from sponsor to partner, or from a method development team to a Quality Control team, the richness of information that is transferred can potentially be an area of risk. Comprehensive oversight by proactive analytical experts working in close collaboration with the sponsor team can mitigate these risks.

Documentation of test results need to be available for retrospective analysis at the sponsor regardless of whether it was of concern when the data is collected. Method descriptions and raw data (especially spectral and multipoint data where limited information appears on a certificate of analysis or in a report) should be in the hands of the sponsor. Trends in data or method performance may only be seen when looking back over a number of testing events.

Case Study: Method Transfer

Method transfer is a key part of any analytical development partnership. It is important that this is performed efficiently and accurately with foresight ready to responds to any unforeseen challenges that may arise. Under an existing strategic partnership with a global pharmaceutical company we were charged with transferring an analytical method involving advanced chromatography with tight timelines to enable the client to meet the sponsor's critical milestone.

Our team approached this method transfer by aligning our resources, process and people to effectively act as an extension of the client's own facility. Working with the client's team, Intertek mapped the method transfer process flow. Potential bottlenecks and areas of concern were identified and mitigated and method transfer implemented. Close interaction including Intertek staff embedded in the client's laboratory for a suitable period to focus in detail on the intricacies of the method.

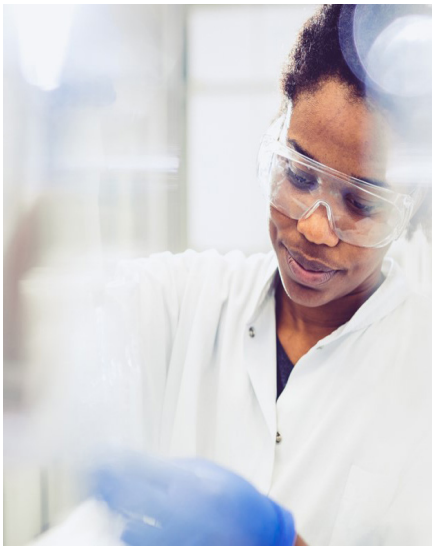
Considerations for Successful Analytical Method Transfer

- The receiving laboratory shall verify that all equipment/system(s) required to perform the method testing is available, qualified, monitored and in compliance with any specifications.
- Reference/test standards, methods, samples and documentation including validation reports must be received in a timely manner by the receiving laboratory. Competent review of the document(s) received should be made by the receiving laboratory and any potential issues highlighted prior to the execution of the transfer protocol.
- Staff at the receiving laboratory will be adequately trained and qualified to run analytical methods. Training by the sponsor company can play a key role to success transfer.
- Pre-approved Protocol shall be reviewed, approved by both laboratories, and shall follow appropriate procedures — at a minimum, the protocol shall include the method procedure, the required materials/instruments, the transfer acceptance criteria, the specific analytical performance characteristics, and what will be evaluated for acceptable transfer results.
- It is often invaluable for experts from the receiving laboratory to work alongside the sponsor in the sponsor's laboratory in order to immerse themselves in the finer details of the procedures and methods.
- Pre-Transfer meeting should be held to review the method transfer data, clarify any outstanding issues, and to remediate any deviations encountered, if applicable.
- A Final Transfer Report shall be initiated to summarize the results obtained and include a conclusion statement.

The Benefits of Strategic Partnerships

Increased Visibility and Control

To strengthen the management of risk in the supply chain, establishing strategic partnerships based on trust, transparency, commitment, ethical beliefs with selected suppliers who share the same values as the sponsor can bring increased visibility of the supply chain, greater control, reduce risks and support ever better innovation.



Continuous Performance Improvement

Streamlining your supplier base drives simplification through a reduced number of service agreements, one point of coordination for each supplier on your system, facilitating improved efficiency of outsourcing through a strategic partnership. Having a laser-like focus on performance and the health of the relationship can help drive continual improvements in efficiency.

Key Performance Indicators (KPIs) and service specific metrics are an increasingly popular way of measuring not only the performance of a supplier, but of the truly strategic partnership of both parties. KPIs can help to:

- Drive performance improvement through consistent and comparable information
- Improve trust through increased visibility of data
- Maintain high levels of service by highlighting the positives
- Flag areas of concern for the supplier to focus on
- Score a supplier for a qualitative comparison across your supply chain

KPIs vary depending on goods and/or services being provided and can be developed between the sponsor and supplier; they can incorporate both quantitative and qualitative metrics tailored to the strategic drivers of the contracting company (e.g. H&S, sustainability) and the contractor supplier.

Flexible resourcing with a strategic partner can drive continuous improvement with the benefit of a resource that fits your needs and access to competent experts whose insight can help you to meet your milestones and product-related requirements for analytical or laboratory services expertise. Analytical testing and data collection in particular is a large, critical, and sometimes unpredictable piece of the overall development effort. It requires equal technical, operational, quality, and strategic attention to ensure there are no-blockers on the horizon. A contract laboratory can deliver ever better performance and execute competitively by investing effectively and developing people.

Selection of highly experienced third-party analytical specialists who are regulatory led can provide the oversight required and improve decision making. As a flexible resource this expertise is invaluable to areas which are challenging including assessment and transfer of methods, development or validation of new methods, identification of impurities and any other specialized nonstandard analytical capabilities. With integrated planning and critical issues identification, decision making can be enhanced and risks identified and mitigated much earlier on and the need for repeat work reduced significantly or eliminated.

Ever Better Innovation

Since 2007, the number of companies actively engaged in pharmaceutical research has led to the drug candidates currently under development to more than double[3]. This emergence of biological targets, therapeutic classes and drug delivery technologies present multiple opportunities, but also complexity and uncertainty to development programs.

To satisfy the needs of these new and complex modalities requires a new type of experienced resource and access to instrumentation which is not standard in quality control laboratories. This instrumentation is generally expensive and requires technical expertise to operate and interpret data. This cost and diversity of technology required often makes implementation non-viable financially, and restrictive as there is limited expertise available in industry, making partnering with a contract organisation the best option.

Outsourcing this activity is not only financially beneficial however, with many new modalities the regulatory pathway is less established and with the inherent complexity many development decisions are made on a case by case basis driven by sound scientific reasoning and product class experience, experience which can often be in greater prevalence in a contract organisation who often will have supported more of the same products, at the same development point.

Benefits across your business

Strategic partnerships can bring benefits across your business, from finance to technical, the close relationships that link your organization with your partner are critical to success.

- Procurement Director

  Benefits: Tighter vendor management enables close control over costs and reduction in costs.

- Outsourcing Manager / Third Party Overview Team

  Benefits: A better understanding of what the vendor does, including capacity, capabilities and flexibility. A close work relationship enables the fertility of this growing relationship in particular open discussion about future technical requirements which may involve significant investment in kit and people in the partner organization.

- Technical Team - Management

  Benefits: Closer working relationship with the technical teams in the partner organization, enables effective and efficient assessment of methods prior to work commencing and supports the need for a full understanding of the capabilities of each vendor and the expectations and perceptions on both sides.

- Technical Team - Technical Expert

  Benefits: More efficient and Interpersonal interaction between technical staff on equal footing, like mind and using the same language and background.

Conclusion

In today's competitive and dynamic pharmaceutical landscape, companies look to focus on their core competencies and outsource for success. Adopting a strategic partnership with a CRO offers a united approach towards accelerating your development programs: defining shared goals and measurement criteria, and aligning structures and processes is beneficial for both sponsor and CRO and builds mutual trust whilst minimizing inefficiencies and mitigating risk.

References

1. https://www.fda.gov/regulatory-information/search-fda-guidance-documents/part-11-electronic-records-electronic-signatures-scope-and-application https://www.gov.uk/government/publications/guidance-on-gxp-data-integrity
2. https://ec.europa.eu/health//sites/health/files/files/eudralex/vol-4/annex11_01-2011_en.pdf
3. Lloyd, I. Pharma R&D Annual Review 2018. Pharma Intelligence. Informa UK Ltd., London

Intertek your Total Quality Assurance Partner

Ensuring the efficient development of a safe, differentiated, high-quality drug and supplying it to patients in need is at the heart of the strategy and decision-making in any pharmaceutical company. Making this a reality though comes with many challenges. As a quality and science-led Total Quality Assurance company, our scientists can add value to your processes and products through high-quality partnerships focused on getting exactly the right laboratory services resources you need to meet your milestones. Our scientists provide expertise across your development and production lifecycle including cGMP and GLP/GCP compliant characterization, stability, release testing and bioanalysis. You will need a strategic partner who invests in scientific and technical excellence to help you to develop and launch a pipeline of new products that meet the needs of patients, buyers and consumers. At Intertek our purpose is to *bring quality and safety* to life and as a strategic partner, Intertek share your concerns and will support the speed and efficiency of your innovative pipeline development through a focus on delivering consistently with precision, pace and passion, enabling you, our customer, to power ahead safely.

Our purpose-led vision is to make the world a better and safer place and our vision is to be the world's most trusted partner for Quality Assurance. Intertek's innovation-led, end-to-end Total Quality Assurance ('TQA') proposition helps organisations operate safely, effectively and with complete peace of mind in an increasingly complex, fast-changing world.

MEET OUR EXPERT

Ashleigh Wake
UK Business Development Director

Following graduation, Ashleigh joined Zeneca as Biotransformation Chemist followed by technical and operational management roles with AstraZeneca and Syngenta before joining Intertek. She has a background in mass spectrometry and a career of over two decades as an operational/technical team leader and study director for projects spanning the drug development process (including metabolism, PK studies and API/product characterisation, CMC support analytics and ICH stability studies). Ashleigh has specialized in the design and delivery of regulatory (GXP) studies relating to the physiochemical and biological activity of biomolecules including oligonucleotides, proteins, mAbs and vaccines and is currently responsible for strategic growth and business development at Intertek's GMP compliant centre of excellence for biologics characterisation in Manchester, UK.

Intertek is a leading Total Quality Assurance provider to industries worldwide. Our network of more than 1000 laboratories and offices and over 44,000 people in more than 100 countries, delivers innovative and bespoke Assurance, Testing, Inspection and Certification solutions for our customers' operations and supply chains. Intertek's Total Quality Assurance expertise, delivered consistently with precision, pace and passion, enabling our customers to power ahead safely.

FOR MORE INFORMATION

Intertek Pharmaceutical Services
Manchester, UK

+44 (0)161 721 5247

pharma.services@intertek.com