Streamlining Sponsor-CRO collaborations with Signals Synergy

Empower teams to accelerate drug discovery with streamlined project management, data exchange, and collaboration.



Outsourcing is inevitable, collaboration is essential

Drug modalities are getting more complex, and they are harder to represent, make, and deliver. As a result, sponsors are working with external sources for deep expertise, labor capacity, and access to cutting-edge technology. But as pharmaceutical companies and biotechnology startups outsource to Contract Research Organizations (CROs) to succeed with today's rigorous and multistep development process, the current state of collaboration between the partners has its own challenges and complexities.

When outsourcing – whether to a CRO, CMO, CDMO, or academic partner – to reduce costs, gain access to specialized expertise or technology, or accelerate discovery, sponsors are dealing with fragmented communication and disjointed workflows. After they've identified the right CRO, IT has to set up complex file-sharing with permissions and to share critical data while protecting valuable intellectual property (IP). From there, teams rely on a tangled web of emails, spreadsheets, and disjointed reporting methods, creating inefficiencies at every step. Information is often undershared, forgotten in email threads, or lost in formatting errors, leading to miscommunication, delays, and rework. When working with multiple CROs, the challenges are compounded.

This complicated approach inhibits decision-making, increases the risk of manual errors and creates the potential to overlook critical insights. Traditional communication methods, such as email and attachments, do not meet the demands of today's drug discovery landscape. Streamlined external collaboration and efficient data exchange are critical to overcoming these challenges.

Sponsors need an informatics solution that simplifies data sharing, protects IP, and eliminates inefficiencies so teams can reduce administrative burdens and focus on accelerating scientific discovery.

Overcoming 5 key challenges in sponsor/CRO collaboration

As the global preclinical CRO market expands – projected to reach \$13.8 billion by 2033 – sponsors and their partners must overcome several fundamental challenges (figure 1) in order to achieve their shared goals of bringing scientific breakthroughs to patients faster.

- **Prioritizing and communicating work.** Project management tasks such as managing milestones, and schedules are difficult. Tracking project progress becomes challenging and researchers waste time and energy toggling between multiple systems or struggling with outdated communication methods.
- Managing user accounts. Sponsors often balance multiple CROs, each with staff turnover and high-flux users, making onboarding and offboarding external resources challenging.
- Tracking and managing outsourced projects. A common challenge is that people in the sponsor or CRO organization operate in isolation. When team members use different software tools and work in different locations and time zones on different aspects of the project, it can be hard to see the bigger picture. Furthermore, technology silos and disconnected tools make it hard to maintain a unified view of the study's progress.
- Data exchange. External data is not standardized, so sponsor staff must manually curate results into a common format for integration for downstream analysis. This process often requires writing custom code for downstream analytics to determine whether a compound is a potential candidate. Plus, manual data entry can be prone to errors. For instance, the CRO must often copy and paste data and experimental details into a style guide to create a report. Sponsors have reported sending back to CROs up to 25% of reports due to errors or missing data, causing headaches and wasting valuable time. Another issue that may occur is failing to include a critical attachment in an email, which can lead to significant project delays. Even after the assay results are delivered, the data is often not ready for analysis. Sponsors must manually clean and restructure the data into a standardized format suitable for integration into scientific software programs.

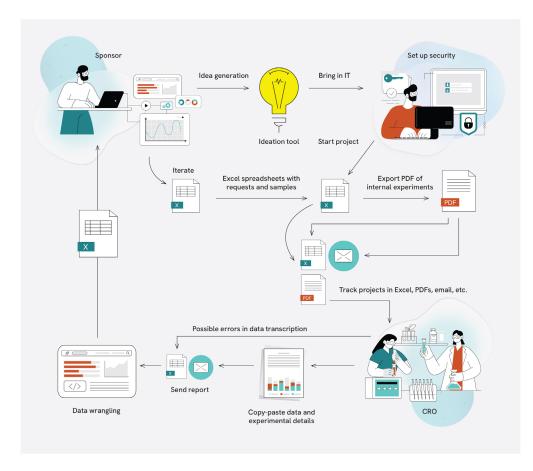


Figure 1. The current state of sponsor and CRO collaboration is complex presenting researchers and organizations with many roadblocks.

• Intellectual Property Protection. Sponsors need to share vital information while safeguarding IP. Traditional communication methods, such as spreadsheets, emailed reports, etc., are flawed because they are not necessarily secure, which raises concerns about data privacy. These conventional collaboration methods do not have a way to limit what the CRO sees, and there is no way to limit the information that individual scientists send to the CRO. Sponsors need a way to refer to specific compounds when communicating with external partners without giving away proprietary attributes such as disease targets or top-secret project codes.

How collaboration software can help

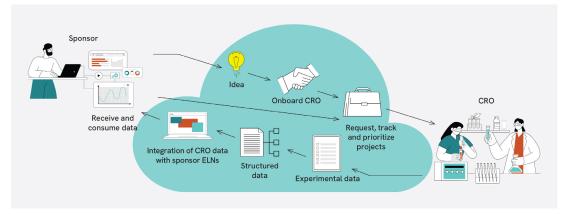


Figure 2. Signals Synergy streamlines sponsor and CRO collaboration within a single SaaS environment.

Signals Synergy, a discovery informatics CRO collaboration solution, replaces email, spreadsheets, and other inefficient methods of information-sharing and reporting between sponsors and their one or more outsourced partners. (Figure 2)

With fit-for-purpose tools, it provides a unified solution that enables sponsors to access the deep expertise of outsourced partners and work together to amplify the innovative thinking that is needed for drug discovery with today's complex drug modalities. Sponsors and CROs operate within the same secure SaaS environment. Instead of navigating multiple tools and disjointed workflows, sponsors can initiate projects, select CROs, and manage work progress in a single system. CROs input data directly into Signals Synergy, eliminating the need for error-prone spreadsheets, email, and manual reporting.

Signals Synergy is a "single pane of glass" type of software, meaning it provides a centralized view of all aspects of the project in a unified interface. It offers simplified project initiation, user management, and security setup. Administrators use a built-in CRO database to handle onboarding, offboarding, and licensing with a click of a button. Role-based access ensures information flows securely and efficiently between sponsors and CROs.

Notably, the solution protects proprietary information. Sponsors can see all the data in one place, while CROs only see what they need. Templates help sponsors automatically transform raw data into standard formats for analysis, reducing delays and the need for rework.

Signals Synergy is built on the trusted Revvity Signals research platform that is already part of scientists' workflow. This expansion is designed to enhance and complement the tools they already use, without requiring scientists to learn an entirely new system. It seamlessly integrates with Signals Notebook or Signals One, ensuring researchers can continue their work without disruption. Signals Synergy eliminates inefficiencies associated with disconnected tools and manual processes by embedding collaboration, project management, and data exchange capabilities directly into the existing workflow. This interoperability enables quick adoption with minimal training so researchers can focus on science instead of project management. Collaboration and communication. Signals Synergy provides a centralized view of all aspects of the project in a unified interface. It offers simplified project initiation, user management, and security setup.

Key features and benefits to improve collaboration in drug discovery

Signals Synergy addresses key informatics challenges when partnering with outside organizations. This expansion enables the following solutions:

Administration. Simplified project initiation, user onboarding, and security setup.



Drug design. The solution includes an ideation workspace to capture drug design concepts and hypotheses, fostering creative thinking throughout the development cycle. Ideas do not need to be entered into the compound registry, which avoids clutter that can cause inefficiencies. Once designs are gathered and prioritized, sponsors can send a Work Order to securely share the necessary information with a CRO.

IP protection. Sponsors can share just the right amount of information, avoiding over-sharing, which risks IP, or under-sharing, which causes delays. Signals Synergy provides internal fields (attributes) to organize, secure, and search for their work without revealing sensitive information. Administrators can control access privileges so that sponsors can see internal fields and hide them from the CRO while retaining organization and searchability. It includes secure data sharing with built-in masking of proprietary codes, properties, and material IDs, which are often kept secret because they are used in patents, publications, or submissions. Together, these features eliminate the challenges of traditional email communication.

Signals Synergy implements 24/7 global security monitoring with alerting and escalation by the Revvity Signals Software Security Operations Center. The platform uses the FAIR (findable, accessible, interoperable, and reusable) data standard, aiding in data integrity and regulatory compliance.



Project management. Scientifically minded tools enable tracking collaboration progress, and intuitive dashboards serve as a place for milestone tracking, assigning, and prioritizing work. Signals Synergy includes onboarding and offboarding CRO resources and the ability to track timelines, and task status. Work Orders provide a secure, structured way to share information with a CRO, eliminating the need for emails or other tracking tools. They can be prioritized, assigned to CRO departments, and include expanded statuses for real-time progress updates. Each Work Order can contain documents, chemical drawings, tables, and other essential data needed for execution. Importantly, Work Orders are fulfilled using sponsor-controlled, templated experiments, ensuring all details are properly captured, labeled, and traceable.

Data exchange. The solution standardizes and integrates external data so that it will be in a uniform format. Unstructured data from outsourced partners becomes structured data. Signals Synergy automatically transforms unstructured CRO reports into structured data that is ready for analytics. This capability puts data into the correct format to prepare it for downstream analytics, visualization, and artificial intelligence tools such as machine learning algorithms.

More insight, less oversight



Facing new drug modalities and ever-increasing pressure, sponsors and their CRO partners find that seamless collaboration is key to successful, efficient drug discovery in a complex and competitive market. Sponsors are juggling multiple partnerships, stringent regulatory requirements, growing data volumes, and opportunities for AI-based innovations. As a result, it is more important than ever to ensure the integrity and security of their valuable IP. Old collaboration methods, such as emailing attachments, are insufficient and not secure enough to meet the demands of today's drug discovery workflows.

A purpose-built solution like Signals Synergy enables sponsors to:

- Explore iterations of drug designs
- Streamline project management
- Standardize data exchange
- Improve collaboration with CROs

Adding a dedicated tool for collaboration helps sponsors accelerate timelines and strengthen external partnerships. Ultimately, leveraging the right technology reduces risk, ensures compliance, and drives cost savings—all leading to a competitive advantage. Signals Synergy empowers sponsors to reduce administrative complexities and focus on what truly matters: advancing scientific innovation and bringing new therapies to patients faster.

One Team, One Goal – Harmonized Alignment for Scientific Excellence

The Enterprise Customer Experience team delivers a wide range of services for designing, deploying, and managing an informatics solution that aligns with your organization's R&D Informatics needs. Service offerings include:

- Implementation Services
- Validation Services
- Consulting & Design Services
- Configuration & Integration Services
- Education Services

We understand technology and the science of our customers. We apply that expertise to delivering solutions that meet and exceed customer expectations.



Professional Services Staff Globally



Advanced Scientific or Technology Degrees



Projects Completed per Year



To learn more about how Signals Synergy is driving success for sponsors and CROs worldwide visit: https://revvitysignals.com/products/research/signals-synergy

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