

Replacing In-House Informatics for Cost Savings and Enhanced Knowledge Access

Discovery team lowers IT costs and improves end-user functionality by standardizing on Certara's D360 Drug Discovery Platform

Background

A multi-national pharmaceutical company had developed a custom informatics system, providing all scientists in its discovery organization with access to essential research data. While information access was well-served by the tool, over time, a long list of new feature requests developed, as user needs grew and changed. Most notably, scientists needed access to new data sources and improved analysis capabilities, changes that would require extensive programming investment. Adding to the challenge, turnover in staff who developed the custom software was causing a loss of necessary expertise. A decision was reached. Software programming lay well outside the company's core focus. Rather than invest further in the custom solution—duplicating work happening across the industry—the company would investigate the growing selection of off-the-shelf platforms for drug development informatics.

Challenge

To replace the in-house system required a highly flexible solution, compatible with the company's existing and complex data architecture—including both industry standard and custom data sources and computational tools. Notably, the new system would need to support connection with the company's *in vitro*, *in vivo*, and biological databases, logistics systems, and electronic lab notebooks to support a wide variety of data workflows across a large scientific user base. It must be customizable, to integrate with in-house workflow software. Expert users desired a smooth connection to the data analysis tool Spotfire® and specialized proprietary analysis applications. In addition, the selection team hoped to improve the usability and feature set of the existing system. Finally, the ideal platform would be extensible to adapt as needs evolved.

Solution

After an extensive search and evaluation, the company adopted Certara's D360 as the information gateway for its drug discovery staff. D360's user-friendly interface met requirements for a

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Benefit

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streamlined workflow, enabling researchers to directly query multiple data sources. Out-of-the-box it provided high ease-of-use, familiar data views, and data visualization and analysis capabilities that met the scientists' need to draw together and understand information from diverse scientific disciplines and user functions. In addition to end-user workflow support, D360's very low IT overhead was an essential decision driver. D360's flexibility to integrate both existing and new data sources and analysis tools was essential to the choice, according to the IT executive responsible for the rollout, so that the informatics platform can keep up as R&D practices evolve.

Certara worked closely with the company IT and scientific staff to deploy D360, setting up data connections to existing chemical, biological, and logistics databases and computational web services. Researchers could now generate project views in a single click and readily perform exploratory data analyses. Further, D360's capabilities allowed data to be viewed from many perspectives and supported a significantly wider range of user tasks. Certara adapted D360 to integrate with custom workflow and analysis software, including online chemical and test ordering, and assay protocol and electronic lab notebook systems. The rollout followed a deliberate, gradual schedule to allow time for research teams to adapt standard reports and procedures as fit their workloads. End-user input was central throughout. Minimal initial training enabled a core group of "champion" users to train their colleagues in creating and updating real-time queries across the data sources. D360's built-in analysis

features supported user needs—a potential savings in software license costs and time previously spent transferring data between applications. For advanced analyses, Spotfire users gained direct connectivity to data in any D360 view.

Benefit

The company's scientists now have direct access to information from a wide—and growing—variety of sources, avoiding the need for lengthy data compilation and reformatting. Scientists can view data from the perspective best suited to each task: by chemical structure, salt form, batch or other key entity such as antibody or crystal structure. Combining cross-disciplinary information into agile, easily updated data views frees researcher effort from data manipulation in favor of knowledge building, exploration and innovation. As an off-the-shelf solution, D360 allowed the company to refocus resources away from core platform development toward innovative projects and quick response to research needs. With a feature set informed by industry-wide developments, D360 provides the company's R&D staff with the latest informatics capabilities, without the costs and risks of in-house software development. The system is already growing with the organization as new data sources and analysis tools come online. Following a roadmap driven by the industry as a whole, D360 will continue to provide innovations as drug discovery and development evolve.

About Certara

Certara is a leading provider of decision support technology and consulting services for optimizing drug development and improving health outcomes. Certara's solutions, which span the drug development and patient care lifecycle, help increase the probability of regulatory and commercial success by using the most scientifically advanced modeling and simulation technologies and regulatory strategies. Its clients include hundreds of global biopharmaceutical companies, leading academic institutions and key regulatory agencies.

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