Integrate Operations and Anticipate Demand

ML for Suppliers to Pharmaceutical and Biopharmaceutical Companies

From contract research and contract manufacturing organizations (CROs and CMOs) to laboratory instrumentation and drug delivery packagers – if your customers are pharmaceutical and biopharmaceutical companies – staying in synch with the highly-regulated, complex, and fast-changing operations of your life sciences customers is critical to success.

What's more, as your customers embrace new technologies like data-driven machine learning (ML) to spur innovation, operational transparency, and agility, they need supply and service partners who can seamlessly interface with these new systems and become a full partner in continuous innovation.

SpringML can help. We understand the rapidly evolving process and technology innovations that are being adopted by today's pharmaceutical and biopharmaceutical companies, and we also understand the role that CROs, CMOs, laboratory instrumentation providers, and other life sciences suppliers must play to ensure success.

Contract Research Organizations:
Power the Drug Discovery Pipeline

Your life sciences customers are increasingly relying on artificial intelligence to analyze ever-increasing volumes of data to enhance drug discovery and to ensure drug approvals. As providers of R&D and clinical trial services, CROs like you are at the leading edge of ensuring the success of the discovery-to-approval pipeline. That's why SpringML helps you bring together key internal and external system data on a secure, high-speed cloud platform, where custom-built ML algorithms can detect patterns that lead to fresh insights or critical issues that can impact clinical trial success and patient safety.

Harness Any Kind of Structured and Unstructured Data:
SpringML makes it possible for you to put virtually any type of data or any volume of data to work. From electronic medical records (EMRs) and genomic data to research papers and even video interviews, our custom-build ML algorithms can analyze all of it in order to ensure the best designed, best executed clinical trial.

Reduce Risk and Ensure Success of Clinical Trials:
SpringML can help you create robust "virtual" models before a clinical trial actually begins, so you can make better decisions around patient and staff selection. Once the trial begins, you can use live data to run simulations that can model trial outcomes, test alternate hypotheses, and address emerging safety or efficacy concerns. For example, SpringML algorithms can conduct a deeper analysis of demographic, epidemiological, and genomic data to identify ideal patient candidates based on target outcomes, thereby avoiding trial failure due to overly broad participant selection criteria.

Contract Manufacturing Organizations:
Deliver High-Quality, Precision Manufacturing Across Every Batch

Whether you're a CMO producing a few grams of a drug therapy for clinical trials or a few metric tons for public markets, the slightest discrepancy in raw materials, drug packaging, ambient temperature, and several other factors can put patient health and even billions of dollars at risk. By using ML algorithms to detect manufacturing and supply chain issues much earlier, SpringML can help you accelerate production planning and provisioning cycles as well as identify and mitigate risks that negatively impact schedule and product quality.

Prevent Production and Supply Chain Issues Before They Happen:
SpringML algorithms detect the slightest change in raw materials, drug packaging, and other supply inputs as an early indicator of deterioration of quality. You can flag potential issues – such as out-of-spec drug packaging or weight-to-volume inconsistences in raw materials – before committing them for use in production.

Predict and Prevent Stockouts and Shortages:
SpringML delivers unprecedented insight into supply and demand signals, enabling you to anticipate potential disruptions on virtually any time scale, whether its four months to four hours before a disruption occurs. By combining predictive analytics with Internet of Things (IoT) technology to sense and respond to potential shortages in real time - from material sourcing to shelf stock. You can anticipate any potential shortages or even defects of constituent materials (such as consistency, quality, or efficacy).

Detect Formulation Inconsistences:
SpringML can help build additional checks into your already rigorous formulation quality assurance measures. You can detect patterns that indicate deviations in production methodologies, assay testing inconsistencies, or early indications of potency or solubility issues.

Laboratory Instrumentation & Manufacturing Equipment Suppliers:
Power the Drug Discovery Pipeline

Life sciences companies depend on a variety of laboratory instruments for R&D, clinical trials as well as precision manufacturing equipment for pre-commercial and commercial production. SpringML can help you keep these mission critical assets up and running longer and always in compliance with strict performance and calibration requirements. What's more, we can bring you closer to your life sciences partners, improving the quality of your products as well as the effectiveness of your sales and marketing activities.

Ensure Consistent Quality of Inbound Production Parts:
SpringML predictive analytics can help you better anticipate shortages or defective materials across the entire supply chain of parts and services required for the production of laboratory instrumentation or pharmaceutical manufacturing equipment. ML algorithms can detect specific patterns that can impact parts quality and availability and can even trigger automated replenishment processes to keep production cycles on schedule.

Maximize Deployed Asset Uptime and Service Life:
SpringML combines predictive maintenance algorithms with Internet of Things (IoT) technology to remotely monitor deployed equipment in real time. You can maximize the lifetime of parts by replacing or servicing them only when necessary. You can also compare past equipment data with current sensor data (along with base data from equipment makers) to detect patterns indicating part failures or calibration issues before they occur.

Harness Compliance-Based Learning:
SpringML can help you incorporate the latest threshold values from Current Good Manufacturing Practices (cGMP) into predictive maintenance algorithms to better support the precision manufacturing requirements of your life sciences customers. You can detect equipment issues that can impact the strength, quality, and purity of drug products much earlier, providing an additional layer of control for pre-commercial clinical trial and commercial manufacturing operations.

Improve Sales Forecasting and Marketing Analytics:
SpringML delivers enhanced data-driven sales forecasting that analyzes current sales opportunities with historical data to discover new trends and forecast future sales performance with greater accuracy. You can better monitor campaign performance across every sales channel, including social media platforms. SpringML sentiment analysis algorithms give you more insight into how customers respond to your advertising and messaging activities, and to know when to engage customers directly to seize new opportunities.

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Get the Most Out of Machine Learning with SpringML

From data to knowledge to wisdom. From reactive to predictive to prescriptive. If you're on the road to machine learning and insight from data, SpringML is there with the talent, know-how, and offerings to help you reach your destination.

No company is better prepared to help you seize the advantage with ML in healthcare and life sciences than SpringML. When you partner with us, you get the experience and expertise of a global systems integrator – one with a proven record of helping Fortune 500 companies realize ML value. Our solutions are implemented at more than 150 customer sites worldwide.

Learn More

To get started or learn how you can get more value from data with ML technology, visit us at:

🌐 www.springml.com/healthcare   📞 1.800.346.8260