

Frontage Pharmaceutical Technology Quality Research Department take the first step in creating their intelligent laboratory

Using NuGenesis™ LMS, the Research and Development, and Analysis Department at Frontage have accelerated their operations and begun their digital transformation towards developing a truly intelligent laboratory.

BACKGROUND

Frontage Pharmaceutical Technology (Suzhou) Co., LTD. are a contract research organization (CRO) they provide integrated, science-driven, product development services throughout the drug discovery and development process to enable life science companies to achieve their drug development goals.

Through their work, Frontage have supported many innovators, generic, and consumer health companies of all sizes worldwide, enabling them to develop and bring to market important therapies and products for patients. Frontage are a leading CRO, known for their commitment to providing rigorous scientific expertise to ensure the highest quality and compliance. They have successfully assisted clients in advancing hundreds of molecules through development to commercial launch in global markets.

With operations in both North America and China, Frontage operates a 'Two Continents, One System' approach which is integral in assuring their customers of the same quality standards, operating procedures, and systems in both China and North America. Their detailed and highly experienced understanding of the regulations and requirements for drug discovery and development in both countries has resulted in Frontage being a partner of choice for companies with multinational requirements or that need support for parallel submissions with the US Food and Drug Administration (FDA) and China National Medical Products Administration (NMPA).



Frontage Pharmaceutical Technology (Suzhou) Co., LTD.

ENSURING QUALITY AND COMPLIANCE

As part of their digital transformation journey, the Quality Research Department at Frontage implemented Waters™ NuGenesis Lab Management System (LMS) in June 2022. Their main aim in implementing the new software was to streamline their operations and move closer towards the 'gold standard' of a paperless laboratory. Mr Xiao Jia, Senior Manager, Research and Development, and Analysis Department at Frontage has been engaged in quality research for more than ten years. Xiao Jia's department is predominantly involved in quality research for new or generic drugs, their work includes follow-up during formulation process development, method development and validation, method transfer, stability studies, and product application support. Xiao Jia highlights that their decision to implement NuGenesis LMS specifically was, in a large part, based on the prominence of Waters Corporation as a market-leading CxO company supplier. The second factor was the ability of NuGenesis LMS to fit the needs of their lab and also integrate seamlessly into their existing lab operations, Xiao Jia comments "many of the existing laboratory products that we use day-to-day at Frontage have a strong compatibility with NuGenesis LMS, so we knew implementing the software would not be difficult or cause unnecessary delay to launch the product in the lab."

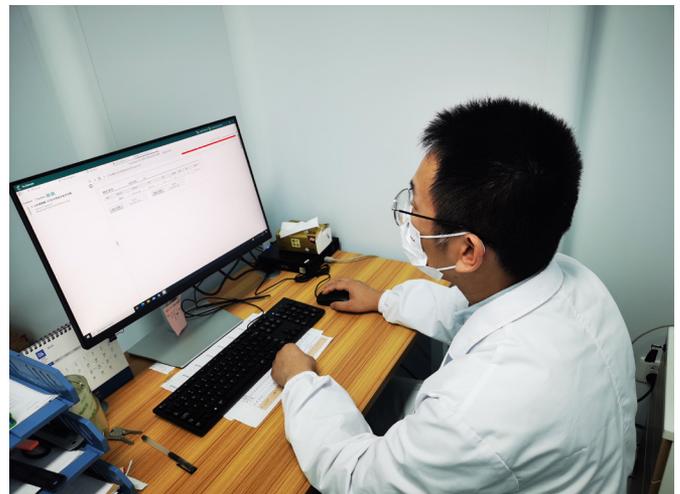
Xiao Jia and his department were encouraged by the compliance of the software, which also played a role in their decision to purchase. As a leading CRO in their field, Frontage have stringent quality management systems which require that the technologies they implement can support them in maintaining their strong track record of regulatory compliance.

THE MOVE TO PAPERLESS

Like many laboratories, Frontage are continually looking for ways to improve the efficiency and quality of their operations, and as a result are investing in ways to streamline their workflows and progress their digital transformation journey. A significant part of this journey involves the implementation of technologies and processes that allow them to reduce the paper burden in their lab. While paper-based processes have worked well in the past, they are often associated with a number of challenges including:

- Storage and maintenance burden
- Traceability of original records
- Accuracy challenges
- Data reuse limitations

Through the implementation of NuGenesis LMS, the Quality Research Department at Frontage have been able to take the lead in moving towards developing an intelligent laboratory. Xiao Jia comments that they currently use NuGenesis LMS to "replace laboratory original records and various other types of paper accounts, as well as for sample management and stability testing". Xiao Jia goes on to say that NuGenesis LMS has improved the management of lab and scientific data at Frontage by making processes such as "test records, logbook, data query and preservation more convenient through more reasonable classification, and compliance is easier to ensure."



The Quality Research Department at Frontage are taking the lead in moving towards developing an intelligent laboratory with NuGenesis LMS.

LOOKING TO THE FUTURE

In addition to the current benefits Frontage are experiencing from using NuGenesis LMS, they also see great potential for how future use of the software will evolve. Xiao Jia views NuGenesis LMS as “the first step in the intelligent laboratory and the first step in the laboratory developing an electronic awareness of the laboratory personnel”. As Frontage expands their use of the software Xiao Jia sees significant benefit in using NuGenesis LMS to start the next step in their digital transformation journey, the “integration of huge data, so that the data can generate meaningful and useful scientific insights”.

Xiao Jia has a big vision for the future of the pharmaceutical industry as a whole, and believes that for Frontage specifically, NuGenesis LMS will play a large role in that future by enabling labs to streamline their data management and do more with their data: “in the future, the electronic laboratory will be connected to and integrated with other departments of the pharmaceutical industry, so that the intelligence of the entire industry will be improved and unified.”

As they look to the future, like many labs they also see a need for increased connectivity between departments, but also more flexibility and the opportunity to personalize the technologies they invest in to ensure their needs are more closely met. With the user-centric NuGenesis Software platform encompassing NuGenesis Scientific Data Management System (SDMS), a compliant-ready data repository, NuGenesis Lab Management System (LMS), a flexible analytical electronic laboratory notebook, Stability management and, NuGenesis Sample Management,

Frontage can seamlessly link data from the lab to their business operations with functionality such as sample submission and results review, stability testing, scientific search, multi-vendor software connection, laboratory inventories, data retention and legal hold, and laboratory execution methods. By leveraging this technology and building on their existing relationship with Waters, they can streamline and improve the lifecycle management of their research projects.

“Waters’ colleagues have strong technical ability, their good service attitude, enthusiasm, and quick feedback on problems make them the ideal vendor for Frontage.”

XIAO JIA

Senior Manager, Research and Development, and Analysis Department at Frontage



NuGenesis LMS will play a large role in the future of Frontage by enabling them to streamline their data management and do more with their data.

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