AI

Bringing Breakthrough Advance to The Modelling and Simulation Community

Lixoft develops modelling and simulation software for advanced model-based drug development. Recently, we caught up with the firm's CEO, Jonathan Chauvin who provided us with a detailed behind the scenes look into the innerworkings of the award-winning company.

Established in 2011, Lixoft products offer powerful and easy solutions for population analysis in pre-clinical and clinical trials, as well as for treatment individualization.

Today, Lixoft develops the Monolix Suite, which is a set of mathematical and statistical modelling and simulation software. Going into further detail about the benefits of the suite, Jonathan begins by informing us more about the solutions the Monolix Suite provides, as well as the technology the firm uses.

"The Monolix Suite covers an extensive Modelling and Simulation workflow with three main applications. The first one is an application for data exploration and non-compartmental, as well as compartmental analysis. The second application provides population modelling and statistical model estimation with diagnosis plots and project management, whilst the third application is dedicated to model exploration and clinical trial simulation.

"At Lixoft, our core technology is based on advanced statistics and optimization with advanced numerical solutions. In combination with solid science, we also associate a strong effort of interfacing and simplification to lower any access barriers so that projects can be shared by teams with different backgrounds."

The Monolix Suite is one of the most widely used platforms for population analysis. Many of the firm's primary users of their innovative solutions are pharmaceutical and biotech companies, as well as academia and regulatory agencies. Whilst on the topic of the firm's clients, Jonathan notes how the team approaches those they work with to ensure that the desired outcome is achieved.

"Here at Lixoft, we approach our clients mainly through two channels. Firstly, we attend scientific conferences where our clients are, as it allows us to introduce ourselves, present the product and plan some demonstration on real test cases. The second channel is through our media platform (website and YouTube Channel) as we are proposing a lot of webinars, case studies and short videos of applications with our products. As a result, the customers have a good idea of our product and then contact us."

Since their inception, the firm has grown rapidly and has reached remarkable heights but showing no signs of slowing down. Recently, Lixoft found success in Acquisition Intl.'s Global Excellence Awards 2019 where they were righteously awarded the accolade Best in Simulation Software for Drug Development – 2019. When discussing the outstanding accomplishments the firm has achieved over the years, Jonathan is keen to highlight some of the reasons he believes have been a key factor in Lixoft's overall success.

"The team here at Lixoft are creating products to allow pharmacologists to focus more on the understanding of the properties of the drug, and less on how to make the model. As such, our purpose is to provide the users with powerful and easy solutions for population analysis. For that, we followed a multi-pronged strategy to build our products. First, we invested in statistics and modelling research. Lixoft maintains intensive and close collaboration with its academic partners to constantly improve its statistical and modelling solutions by transposing the latest advances in the field. Secondly, we build tailormade interfaces for simple configuration and interpretation of the pharmacometric models. Lastly, Lixoft is now extensively developing its applications team of computational biologists, to further increase its exchanges and collaborations with customers on their most advanced clinical studies."

Looking ahead to what the future holds for the firm, the team at Lixoft will continue to deliver an impeccable service, ensuring that they not only meet their clients' demands, but also surpass their expectations. Bringing the interview to a close, Jonathan signs off by revealing the exciting plans which lie in the pipeline for the firm, touching on their hopes to further expand the business.

"Moving forward, our product line will continue expanding to cover an enlarged modelling and simulation workflow, including Quantitative Systems Pharmacology, mechanistic physiology modelling (PBPK) and additional decision support for dosing and dose adaptation in clinical trials.

"Alongside this, Lixoft will work with clinics and hospitals to provide dose individualization solutions in hospital routines, where our modelling technologies will be used to predict specific individual responses and optimize dosing and administration. Therapeutic areas targeted in priority will include oncology, autoimmune diseases, and antibiotics."

Ultimately, the team at Lixoft have big plans they hope to complete in the years to come, and we are excited to see how the firm will grow and develop with any challenges and opportunities they may face.

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