

Qualyst Transporter Solutions, LLC and IONTOX, LLC Announce New Partnership

New relationship will support the further development of IONTOX's Dynamic Multi-Organ Plate™ with simulated blood system

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Durham, N.C. (March 9, 2017) – Qualyst Transporter Solutions, LLC (QTS) and IONTOX, LLC have finalized an agreement for QTS to help develop and exclusively license IONTOX's innovative Dynamic Multi-Organ Plateⁱ (DMOP) system. The agreement will allow QTS to expand its *in vitro* product and service portfolio and will allow IONTOX to finalize the development of the product as well as gain entry in to new markets.

The DMOP technology is a proprietary plate set with up to six separate wells that can sustain cells from up to six different organ types, all connected by fluidics that simulates blood flow. The system prevents mixing of different culture media, a limitation of other related multi-organ technologies. This means that the most appropriate culture conditions can be used for every cell type (e.g. cardiomyocytes, neurons, hepatocytes, lung epithelial, etc.).

“We are pleased to be able to support the development of IONTOX's novel DMOP technology and offer it to our customers”, said Dr. Chris Black, CEO of QTS. “The DMOP system, with its simulated blood flow and multiple organ capabilities, represents a better way to assess absorption and elimination routes into the body with effects on the liver,” said Dr. Black.

IONTOX has patented the DMOP plate and has conducted pilot projects assessing absorption using lung epithelial, human intestine using EpiIntestinal (MatTek, Corp) , and skin using EpiDerm (MatTek, Corp) along with human liver using Transporter Certified™ Hepatocytesⁱⁱ. These projects have yielded promising results and consist of two phases: measuring the compounds and metabolites in each chamber, followed by computer modeling to develop pharmacokinetic data.

“QTS continues to lead the industry with *in vivo* relevant hepatic models and by collaborating with QTS we are able to bring the best liver technology to our Multi-Organ model,” said Dr. Jim McKim, Founder and CEO of IONTOX. “Because QTS is interested in a more complete way to assess a compound's entry in to the body and exposure to the liver, their support for further development makes a lot of sense,” said Dr. McKim.

This partnership will accelerate the development of different versions of the DMOP technology with the aim of creating DMOP versions that better replicates the absorption and fate of compounds in the human body. QTS, under an exclusive license, will be able to offer the multi-organ plate technology to customers in the pharmaceutical, chemical, cosmetics, and consumer products industries.

As part of the alliance Qualyst and IONTOX will continue to operate laboratory facilities in Research Triangle Park, NC and Kalamazoo MI.

About Qualyst Transporter Solutions, LLC

Qualyst Transporter Solutions, LLC (Qualyst) provides *in vitro* hepatic models to predict the effect of drugs and other compounds on the human liver. Qualyst's *in vitro* models integrate hepatic uptake, metabolism, regulation, and efflux and demonstrate superior *in vitro-in vivo* correlation compared to conventional systems. Qualyst's proprietary technology, products, and services are used by leading pharmaceutical, nutrition, cosmetics and consumer products, and chemical companies to provide clinically-relevant answers to liver-related questions, and to address regulatory concerns about their products.

About IONTOX, LLC

IONTOX is a biotechnology company dedicated to providing expertise to the area of *in vitro* toxicology, with a mission to build improved methods for predicting human adverse effects from chemical exposure.

From laboratories located in Kalamazoo, Michigan, IONTOX serves a global client base in the pharmaceutical, cosmetic, chemical, tobacco, and food additive industries. Through, consulting, product development, and laboratory services the company contributes to the development, application, and interpretation of alternative testing methods.

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ⁱ Dynamic Multi-Organ Plate™ is a trademark of IONTOX, LLC

ⁱⁱ Transporter Certified™ is a trademark of Qualyst Transporter Solutions, LLC