

News Release

Lonza to Present Latest Research into More Physiologically Relevant ADME-Tox Models at the Society of Toxicology Meeting

Walkersville, MD (USA) / Basel (CH), 1 February 2018 –

During the Society of Toxicology Meeting from 11-15 March 2018 at the Henry B. González Convention Center in San Antonio, TX (USA), Lonza will present two posters highlighting its latest research into developing more physiologically relevant *in vitro* cell-culture models for ADME-Tox testing. Lonza is also sponsoring two symposia at the meeting featuring the use of cell-culture models that better mimic the *in vivo* environment for enhanced research into drug-induced liver injury and hepatic signaling pathways and for improved *in vitro* hepatotoxicity testing.

Poster Presentation: Comparison of Hepatocytes in Monolayer and RAFT™ 3D Cell Culture System

With studies suggesting primary hepatocytes can quickly lose many of their *in vivo* functions when cultured as a monolayer – the most commonly used approach for drug metabolism and toxicity experiments – researchers need more reliable *in vitro* liver models. To address this need, on Monday, 12 March, from 10:45 am–12:15 pm in the Exhibit Hall, Therese Willstaedt, Scientist RND-Cell Biology at Lonza, will explain how hepatocytes cultured in the RAFT™ System show stronger cytochrome P450 responses and increased stability, helping researchers to better mimic the situation *in vivo*.

Poster Presentation: A Novel *In Vitro* Liver Cell Culture Flow System Allowing Long-term Metabolism and Hepatotoxicity Studies

On Monday, 12 March, from 10:45 am–12:15 pm in the Exhibit Hall, Magdalene Stosik, Senior Scientist RND-Cell Biology at Lonza, will describe how the Quasi Vivo® Culture System can improve metabolism and hepatotoxicity studies. While animal models are useful for detecting hepatotoxicity, they are often unable to accurately predict toxicity in humans due to species differences. However, by culturing primary human hepatocytes in an advanced, interconnected fluidics system, the stability of drug metabolism enzymes can be improved, offering a more representative *in vitro* model for the repeated dosing of hepatotoxicants.

Symposium: Designed for Purpose – Complex Liver Cell Cultures for Improving *In Vitro* Hepatotoxicity Testing

Lonza is sponsoring a symposium co-hosted by ScitoVation, on Wednesday, 14 March, from 10:30 am–11:30 am in Room 217B. Drs. Jessica Hartman and Martin Phillips will present 2D and 3D models being developed by ScitoVation for assessing hepatotoxicity. By combining Lonza's primary hepatocytes and liver non-parenchymal cells in 2D or 3D models, the viability, phenotypic behavior, and response of cells to chemicals is enhanced. The presentation will explore how scientists can improve the physiological relevance of their *in vitro* liver models, while ensuring the complexity of cultures is kept to a minimum, which saves laboratories both time and money.

Symposium: 3D Cultures of HepaRG™® Cells Model Physiologically Relevant Drug Metabolism, Drug-Induced Liver Injury, and Hepatic Signaling Pathways

Also at this year's Society of Toxicology Meeting, Lonza is sponsoring a symposium on the 3D culturing of HepaRG™ cells – a commonly used human hepatic cell line. On Tuesday, 13 March, from 10:30 am–11:30 am in Room 217B, Dr. Stephen Ferguson, a leading researcher at the National Institute of Environmental Health Sciences, will discuss developing organotypic *in vitro* liver models using HepaRG™ cells to improve the predictability of studies looking into drug metabolism, drug-induced liver injury, and hepatic signaling pathways.

"These presentations at the Society of Toxicology meeting highlight Lonza's scientific initiatives to support the development of cell-based model systems with more human relevance for toxicity research," said Maureen Bunker, Product Manager for ADME-Tox Solutions at Lonza. "In addition to sharing our latest research findings, we will have experts on hand at the ToxExpo (Booth 1413) to consult with researchers on how our primary human and animal hepatocytes, as well as supporting liver cells, can help improve the translatability of their *in vitro* drug metabolism, phenotypic screening and mechanistic toxicity studies."



More information about Lonza's ADME-Tox solutions can be found at <https://www.lonza.com/admetox>

About Lonza

Lonza is one of the world's leading and most-trusted suppliers to the pharmaceutical, biotech and specialty ingredients markets. As an integrated solutions provider, Lonza is boosting its value creation along and beyond the healthcare continuum with a strong focus on patient healthcare, consumer preventive healthcare and consumer's healthy environment.

Lonza harnesses science and technology to create products that support safer and healthier living and that enhance the overall quality of life. With the recent Capsugel acquisition, Lonza now offers products and services from the custom development and manufacturing of active pharmaceutical ingredients to innovative dosage forms for the pharma and consumer health and nutrition industries.

Benefiting from its regulatory expertise, Lonza is able to transfer its know-how from pharma to hygiene and fast-moving consumer goods all the way to coatings and composites and the preservation and protection of agricultural goods and other natural resources.

Founded in 1897 in the Swiss Alps, Lonza today is a well-respected global company with more than 100 sites and offices and approximately 14,500 full-time employees worldwide. The company generated sales of CHF 5.1 billion in 2017 with a CORE EBITDA of CHF 1.3 billion. Further information can be found at www.lonza.com.

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