Revolutionizing Intestinal Toxicity Screenings with Perfusable Adult Stem Cell-Derived Organoids

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Intestinal toxicity is a significant factor contributing to the high attrition rates of novel drugs, such as chemotherapeutics. The standard approach to establish the risk associated with novel compounds is to perform prospective high throughput screenings, followed by retrospective mechanistic studies. The former are typically carried out on Caco-2 based monolayers grown in Transwell inserts. However, to generate insights on mechanisms of toxicities reported at the in vivo or clinical stage, more translatable in vitro models are needed.

Adult stem cell (ASC)-derived organoids present an opportunity to achieve this complexity, better replicating the heterogeneity of the adult intestinal mucosa, as well as a proliferative stem cell niche. In order to add scalability and robustness, we developed an organoid model incorporated into the OrganoPlate ® platform.
The OrganoReady® Colon Organoid is the first ready-to-use ASC-derived organoid model, and we are excited to officially launch it this September.

Join our two speakers as they will discuss how the OrganoReady Colon Organoid and various other intestinal models developed in the OrganoPlate can be utilized across different contexts of use to support different stages of drug development.

Webinar highlights:

- Learn about the characterization of our OrganoReady® Colon Organoid model and how it can streamline mechanistic toxicology screening workflows by utilizing standardized high throughput assays.
- Learn how adverse toxicity events, such as potential diarrhoeagenic effects, can be demonstrated in the OrganoReady Colon Organoid
- Explore how the induction of disease phenotypes, such as Inflammatory Bowel Disease (IBD), adds to the model's translatability, providing a more accurate platform to evaluate novel pharmaceuticals.

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