

HOW WE DO IT

# **RepliGut**<sup>®</sup> **Model Systems**

Model inflammation response, toxicity, and barrier function that results in physiologically relevant human data for greater confidence in decision making earlier in drug discovery

#### **REPLIGUT® PLANAR**

RepliGut® Planar is a stem cell derived in vitro culture model that recreates the human intestinal barrier. Models are organized as a single, polarized layer of differentiated epithelial cells with tight junctions, cultured in a convenient semipermeable membrane support insert.



INDIVIDUAL DONOR CRYPT

## **INTESTINAL EPITHELIAL CELLS**

TRANSWELL CROSS-SECTION

#### FEATURES

- High-throughput 96-well format
- Key cell types of the gut epithelium represented
- Accessible apical and basal reservoirs
- Models for multiple intestinal regions available

Immunostaining and electron micrographs of RepliGut® Systems showing monolayer polarity, tight junctions, functional cell types, and presence of microvilli. Microvilli image courtesy of Dr Yuli Wang, University of Washington.



#### SAMPLE DATA



Anti-inflammatory therapeutics block TNFα- and IFNγ-induced barrier loss and cytotoxicity.

#### **DIVERSE BIOBANK**

An ethically sourced biobank consisting of multiple intestinal regions from multiple donors enables both cross-region and cross-donor studies.

### APPLICATIONS

Inflammation	Host-microbe interactions
GI Toxicity	Bioavailability
Barrier Function	

#### KITS AND SERVICES

Enlist Altis scientists to test your samples or use kits to set up RepliGut<sup>®</sup> Systems in your own lab.

#### SERVICES

- Barrier integrity
- Permeability
- Toxicity
- Cytokine response
- Viability
- Proliferation
- Barrier formation
- Gene and protein expression

#### KITS

- Region-specific stem cells
- Hydrogel coated plates
- · Expansion media
- Differentiation media
- Cell disruption media
- Detailed instructions
- Technical consulting

**Disclaimer:** For research use only, not for diagnostic purposes. All trademarks belong to Altis Biosystems or its affiliates or respective 3rd parties. The information herein is believed to be accurate and corresponds to the latest understanding of scientific and technical knowledge. No warranty is made, expressed or implied, concerning results obtained from the use of this information. User must make his/her own determination that the information and recommendations are suitable for intended purpose. This Data Sheet was issued for individual consumption and further dissemination, or publication of this data is prohibited.

Scan here to get in touch with our experts



© 2023 Altis Biosystems, Inc. 6 Davis Drive, Suite 159 Durham, NC 27709

AltisBiosystems.com | 919-885-4823 | For sales: info@altisbiosystems.com | For technical: scientificsupport@altisbiosystems.com