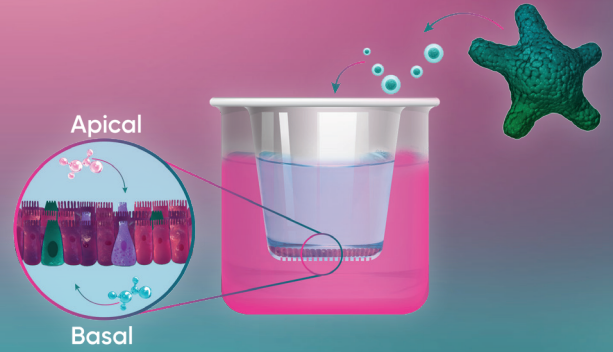


PDO Monolayer

A physiologically relevant human platform to evaluate epithelial barrier function



Current treatment regimens (5-ASAs, anti-TNFs) for IBD aim to restore barrier function and aid in epithelial healing. However, 40% of IBD patients remain non-responsive, which makes the identification of novel therapeutic targets a priority.

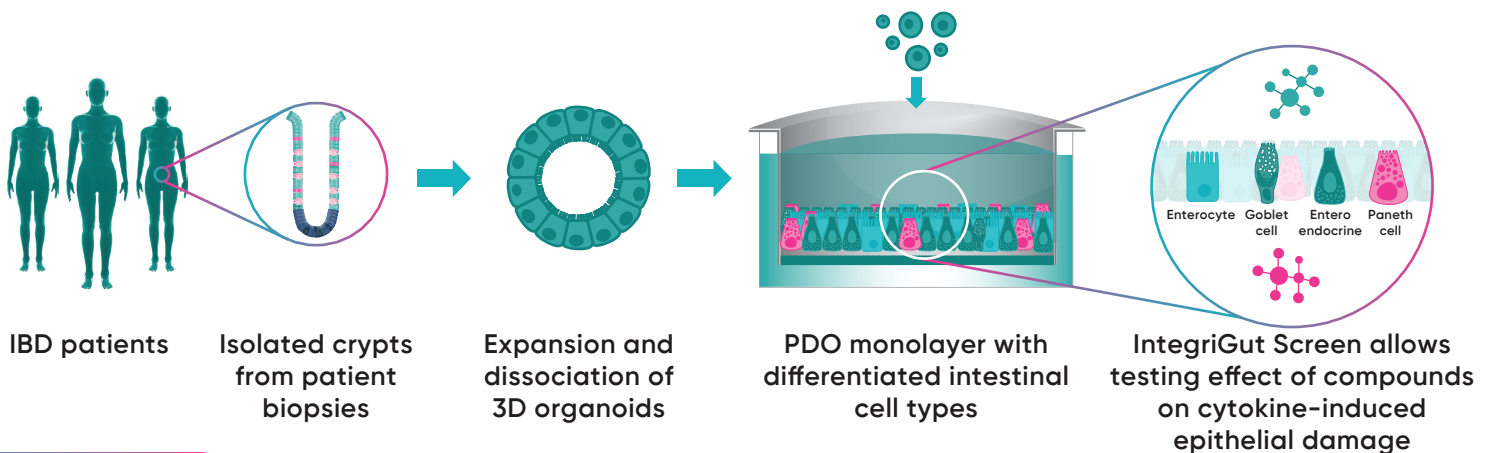
Conventional preclinical models like non-primary monocultures, and non-human *in vivo* models, are not translational as they do not accurately replicate the human intestinal niche.

Patient-derived organoid (PDO) monolayer is a patient-derived *in vitro* system organized as a single, polarized layer enriched in different intestinal

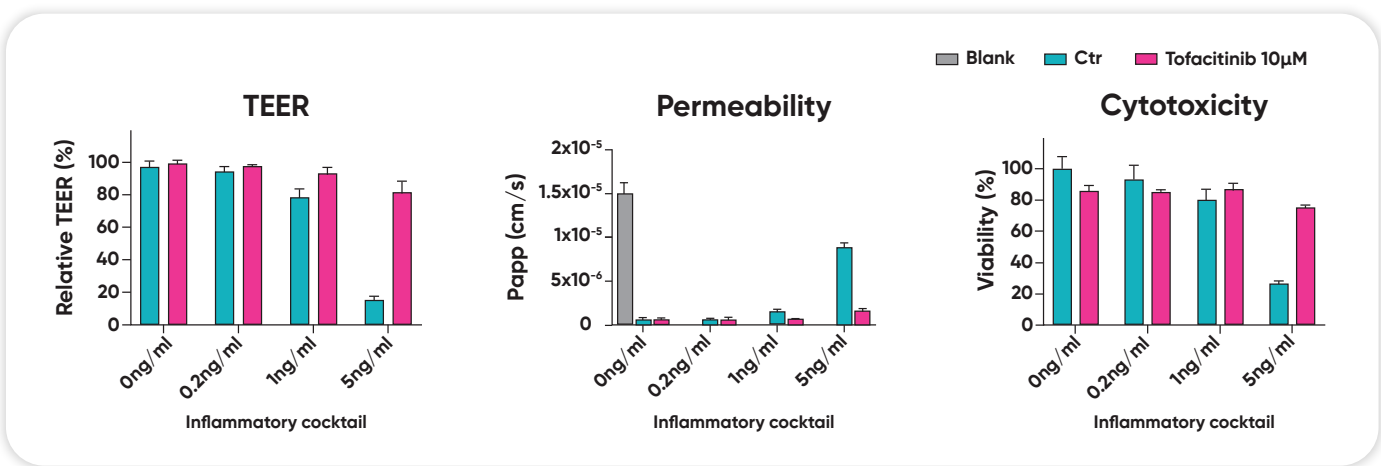
cell types, thus recapitulating the *in vivo* organ physiology.

Organoid monolayers allow the access of both the apical and basal side of the epithelium to evaluate barrier function in response to inflammatory challenges.

Using PDO Monolayer we have developed IntegriGut Screen, a service specifically designed for high-quality human data on epithelial barrier function, cytotoxicity, and cytokine release upon cytokine-induced damage for IBD drug discovery and development.



IBD readouts

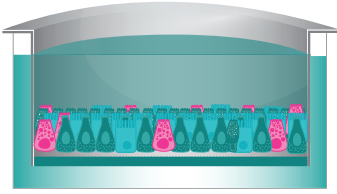


IntegriGut Efficacy Screen

IDEAL FOR LEAD IDENTIFICATION

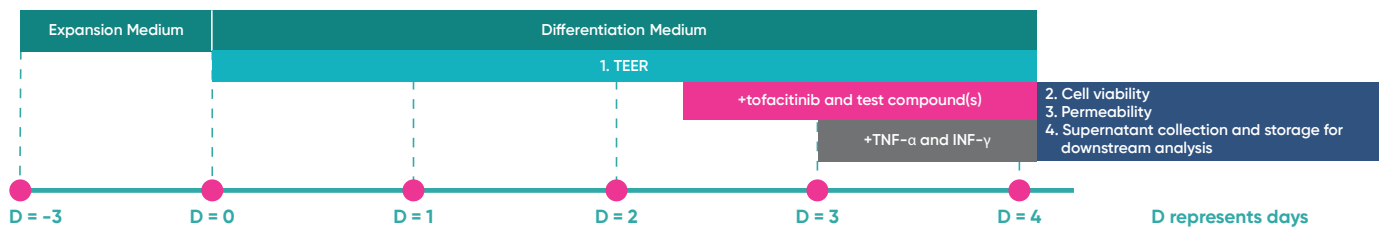
High-quality human data on epithelial barrier function, cytotoxicity, and permeability

Test up to 10 compounds in 1-2 PDOs



- 3 doses per compound and 2 inflammatory challenge concentrations included
- Standard of care (tofacitinib), vehicle, and staurosporine included
- Data delivery within 3 weeks from compound delivery
- Supernatant collection and storage for downstream analysis
- Measurements include
 - ✓ Barrier Integrity (TEER)
 - ✓ Permeability (Lucifer Yellow)
 - ✓ Viability (CellTiter-Glo®)

Experimental timeline



IntegriGut Biobank Screen

Elevate your clinical candidate selection using a larger IBD patient cohort

Test your lead candidate in 30 established IBD models representative of:



- Crohn's disease
- Ulcerative colitis
- Different intestinal regions
 - ✓ Small intestine
 - ✓ Ileum
 - ✓ Colon
 - ✓ Rectum

Why choose IntegriGut Screen?



Patient-derived *in vitro* model representative of human biology



Recapitulates *in vivo* gut epithelium with the intestinal cell types



Derived from a well-characterized IBD biobank with RNA-seq and risk loci profiling data



Faster than *in vivo* models, raw data available within 3 weeks

Ready to accelerate your IBD preclinical discovery?
Connect with an expert

contact us

