

Advancing Gastroenterology Research with Innovative Translational Services

Translational Solutions

Inflammatory bowel disease (IBD) research has seen substantial investments in preclinical therapy development. However, translating findings from preclinical animal models to clinical success presents formidable challenges and can lead to substantial investments in drug candidates with uncertain clinical utility.

Synexa Life Sciences' offers innovative and dependable *in vitro* translational service that harnesses *ex vivo* patient samples. By seamlessly bridging the gap between *in vivo* research and clinical application, our service facilitates detailed insight into disease mechanisms, drug efficacy, and the development of personalised treatment strategies.

Access to well characterised patient groups is useful for:

- Proof of biology
- Confirmation of preclinical findings
- Target engagement
- Efficacy

Our Service and Expertise

Access to Ex Vivo Patient Samples

We provide ethically sourced and fully consented *ex vivo* patient samples. These samples accurately represent disease complexity, allowing Synexa scientists to test and screen targeted and effective therapies.

Furthermore, our clinical network includes key opinion leaders in gastroenterology who are further able to consult on study design, patient selection, sampling strategy and clinical outcomes.

Our fully qualified clinical sites have an established workflow, permitting stratified subject enrolment, in compliance with internal ethics review and detailed patient consent.

Sample types include:

- Whole blood, serum and plasma
- PBMCs
- Mucosal tissue biopsies

In vitro co-culture models using relevant cell lines for GE studies

Should you require extended culture times, we can provide a co-culture Transwell® model using Caco-2, HT-29 and T-84 cell lines combined with appropriate immune cells isolated from patients. This Transwell® based culture system is one of the most extensively studied *in vitro* cell models due to its ability to form well-differentiated and polarised cell monolayers as surrogates for the human intestinal epithelium.

Customised Study Design

Our experienced team works closely with researchers to tailor study protocols according to their specific requirements. From sample selection to data analysis, we ensure every step aligns with your research goals.

Discuss your programme with a scientist

Speak directly with a Synexa scientist about your gastroenterology research requirements today.
Email our team at contactus@synexagroup.com to get started.

Diverse Assay Options

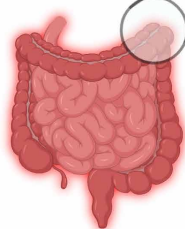
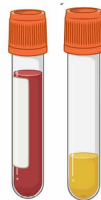
We tailor our biomarker approach to our customers' specific research goals and can therefore offer an extensive range of assays to suit different needs, including but not limited to:

- Inflammation Biomarker Profiling
- Cytokine and Chemokine Analysis
- Immune Cell Characterisation
- Drug Efficacy Testing
- Multiplex Immunofluorescence Tissue Imaging
- Genetic Analysis
- Biomarkers
- Microbiome Characterisation



Soluble Biomarkers

- Pro-inflammatory and Th17 cytokines
- Autoantibodies
- Serum biomarkers:
 - I-FABP
 - TFF3
 - NGAL
 - MMP-9
 - CRP
 - LRG1
 - IGFBP-3
 - Oncostatin M
- Fibrotic biomarkers:
 - PIIINP
 - YKL-40
 - TIMP-1



Single nucleotide polymorphism detection:

- NOD2
- ATG16L1
- IL23R
- IRGM

Faecal biomarkers:

- Lactoferrin
- Calprotectin

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Quality Assurance

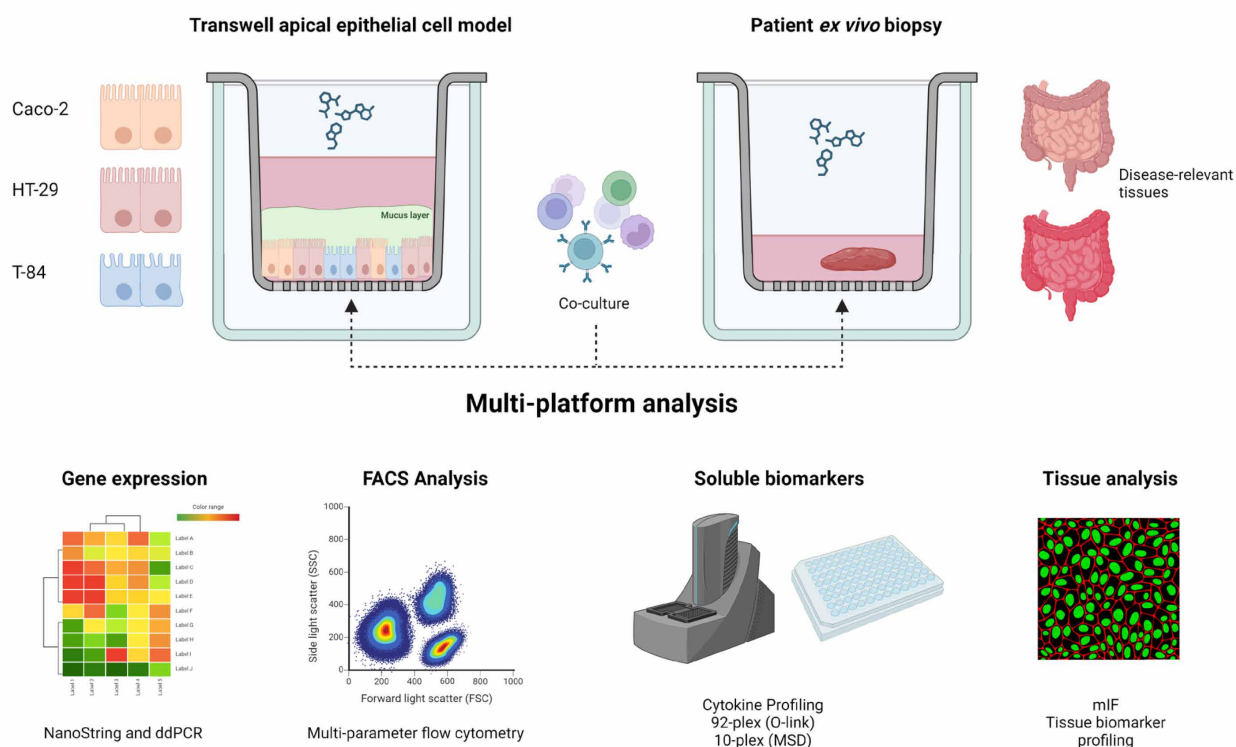
Our laboratories adhere to strict quality assurance protocols, ensuring reliable and reproducible results. This commitment to quality guarantees the accuracy and validity of your research outcomes.

Translational studies combining your candidate therapy with the target patient samples

Gastroenterology Translational Platform

Inflammatory bowel disease and irritable bowel syndrome

Investigating inflammation, cellular cross-talk, carrier targeting and delivery, drug target hitting, host microbiome and transport



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