

# Unpacking the Potential of 3D Tissue Models

## Building Your 3D Toolkit

*In vitro* studies are a powerful tool, contributing to some of the biggest breakthroughs in drug discovery and development. Yet every dish has its drawbacks — namely, the challenges of recreating human biology outside of human bodies.

While animal models can be useful, they don't always match up with human patients' physiology.

Fortunately, 3D tissue models can provide a solution.

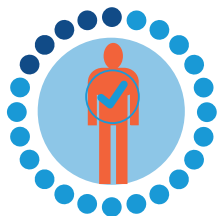
## What are 3D Tissue Models?

Three-dimensional models take human cells and give them the microenvironments needed to mimic *in vivo* but culture *in vitro*. At scale, 3D tissue cultures are more physiologically relevant than traditional models.

### 3D Tissue Model Examples

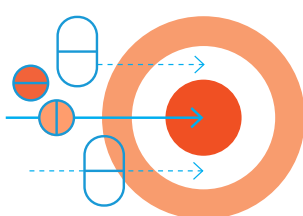
- Skin
- Stomach
- Lung
- Liver
- Kidney
- Brain

## Research Areas Using 3D Tissue Models



### Cancer Research and Drug Discovery

Motility models support the understanding of a variety of cell functions and movement as well as cell differentiation.



### Precision Medicine

Identifying which therapies have a better chance of effectiveness against fighting a specific patient disease.



### Regenerative Medicine

Generating new tissue, such as skin, bone, or cartilage.

## Your 3D Tissue Models Toolkit

### POROUS SCAFFOLDS

Transwell® and Falcon® permeable supports give 3D tissues the structural hold they need to mimic *in vivo* biology.



### HYDROGELS

Options such as Corning Matrigel® matrix and Collagen provide nutrient-rich extracellular matrices (ECMs) where tissues can thrive.

### BIOPRINTING

The Corning® Matribot® bioprinter makes it easy to print hydrogels into plates for a more automated, efficient 3D workflow.



### 3D SPHEROID PLATES

Corning's spheroid microplates can help you successfully generate spheroids that yield reliable assay results.

Learn more about Corning solutions for tissue models at

[www.corning.com/3D](http://www.corning.com/3D)

# CORNING

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