



# Human fibrotic liver ECM substrates

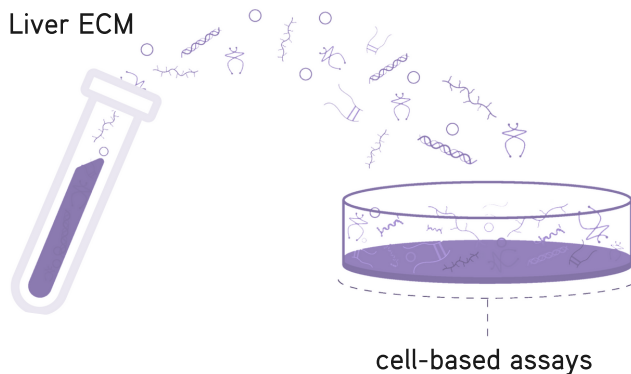
## Accelerating anti-fibrotic drug development

XylyxBio's custom human (normal or fibrotic) liver ECM substrates recreate the fibrotic liver environment in vitro to offer a significantly improved disease-relevant setting for fibrosis modeling and drug development.

### Features

- Recapitulate human liver fibrosis in vitro
- Fibrotic liver ECM composition
- Applicable in 2D and 3D in-vitro models
- Compatible with high-throughput screening
- Xeno-free

## Organotypic ECM platform for anti-fibrotic drug development

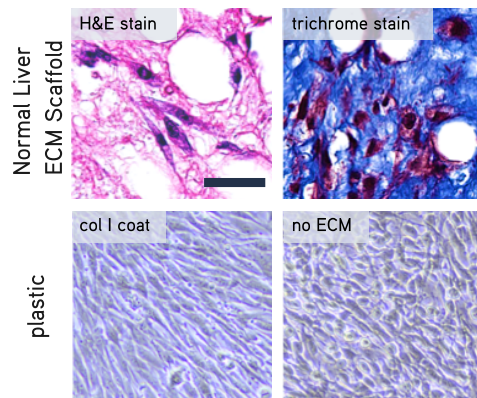


### Normal and Fibrotic Liver ECM substrates

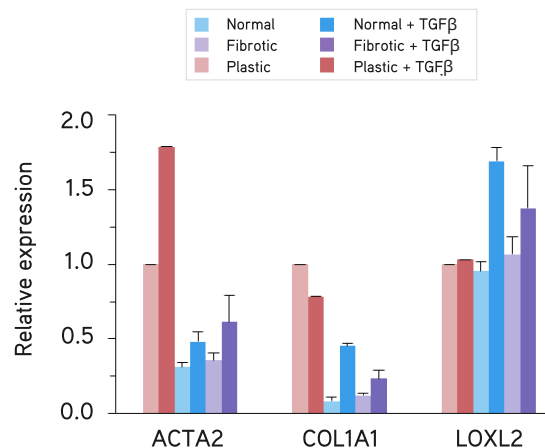
- TissueSpec® ECM Scaffold
- TissueSpec® ECM Hydrogel
- NativeCoat™ ECM Coating

## Platform for modeling fibrotic liver disease

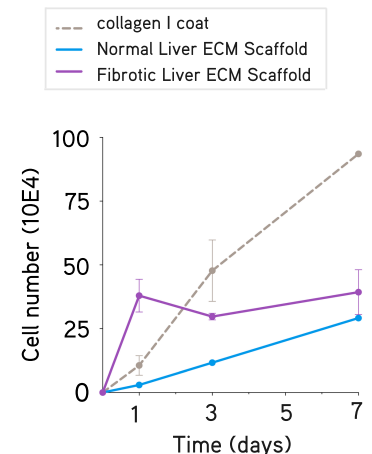
### a Cell morphology



### b Gene expression

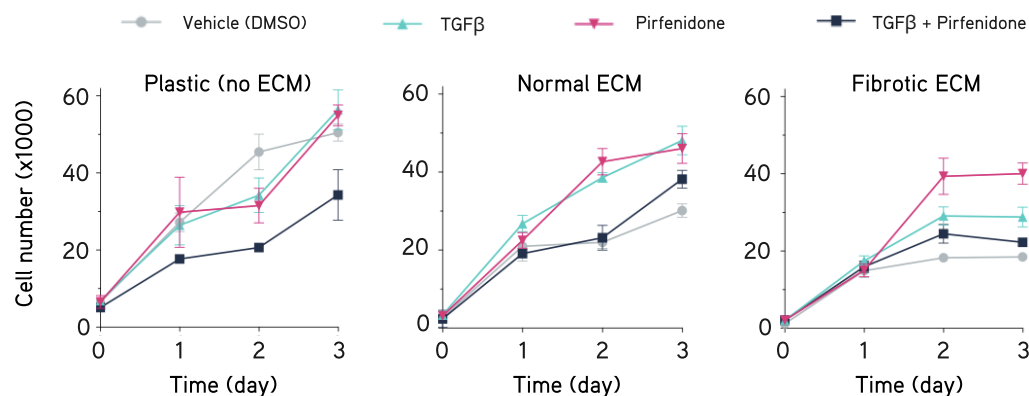


### c Cell proliferation



Hepatic stellate cells (a) integrate into 3D TissueSpec® Liver ECM Scaffolds and (b) exhibit differential expression of fibrosis-related genes in liver ECM scaffolds compared to plastic. (c) Cells proliferate over 7 days in normal and fibrotic liver ECM scaffolds with higher proliferation in fibrotic liver ECM scaffolds, consistent with progressive fibrotic liver disease.

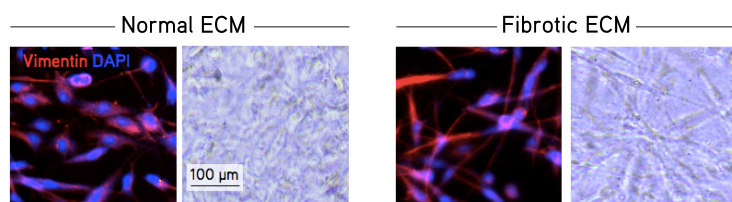
# Anti-fibrotic compound testing



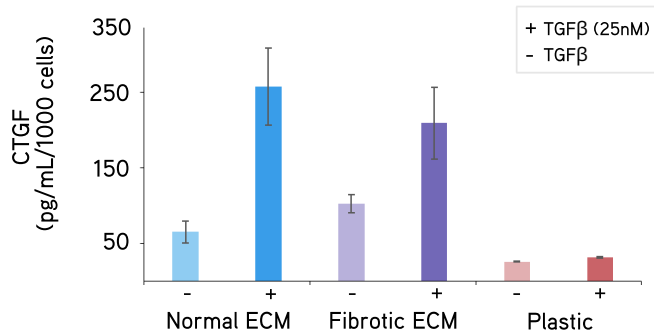
Primary human hepatic stellate cells were cultured with or without TGFβ (25nM). Cells show continual proliferation on plastic but attenuated proliferation in liver ECM hydrogels in response to Pirfenidone (2.7mM), consistent with expected antifibrotic effect of Pirfenidone.

# Characterization of hepatic stellate cells IN MATRICO®

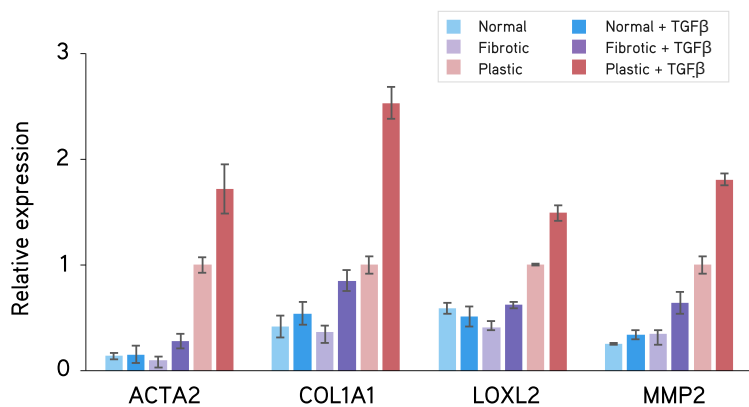
## a Cell morphology



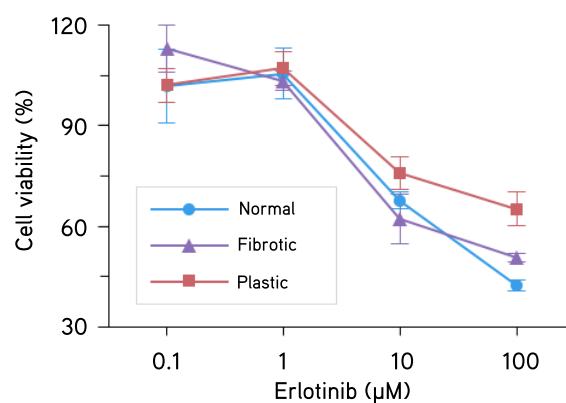
## b CTGF secretion



## c Gene expression



## d Drug response



Primary hepatic stellate cells (a) in normal and fibrotic human liver ECM hydrogels. (b) **Differential secretion** of connective tissue growth factor (CTGF) in human liver ECM scaffolds after 72 hours. (c) Hepatic stellate cells have **more physiologic gene expression** in liver ECM hydrogels compared to other substrates. (d) After treatment with Erlotinib for 72 hours, hepatic stellate cells in liver ECM hydrogels show **greater sensitivity at higher drug concentrations**.

## Partner with us!

We actively partner with leading pharmaceutical companies to integrate products in drug discovery and screening workflows and develop specialized disease-specific cell-based assays.

For partnering opportunities and any other inquiries contact us today at [info@xylyxbio.com](mailto:info@xylyxbio.com)