

# MATSUNAGA LAB.



## [Fabrication of 3D living tissues]

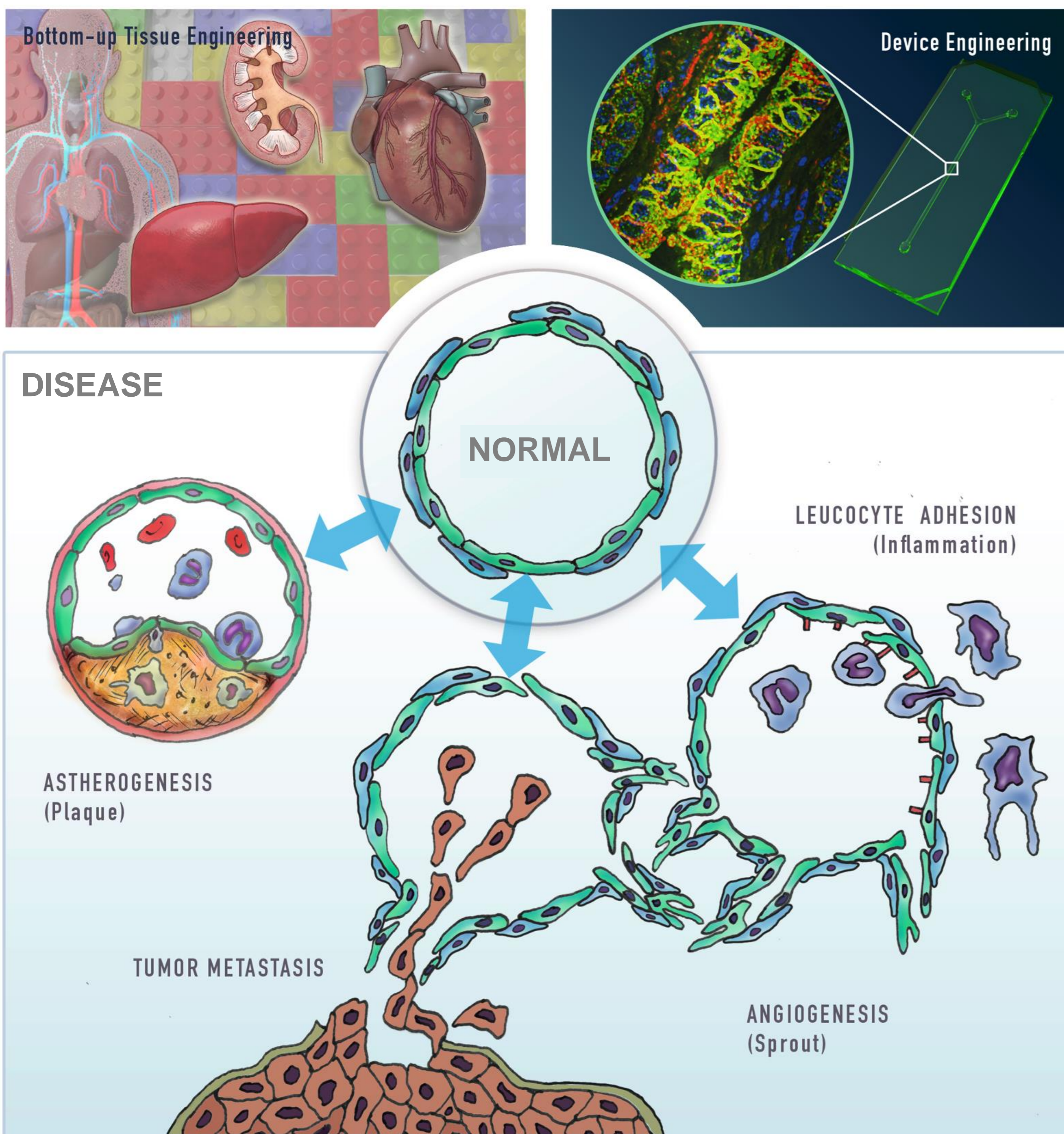
Center for International Research on Integrative Biomedical Systems

<http://matlab.iis.u-tokyo.ac.jp>

Bottom-up tissue engineering, Vascular tissue engineering, Organ on a chip

Department of Bioengineering

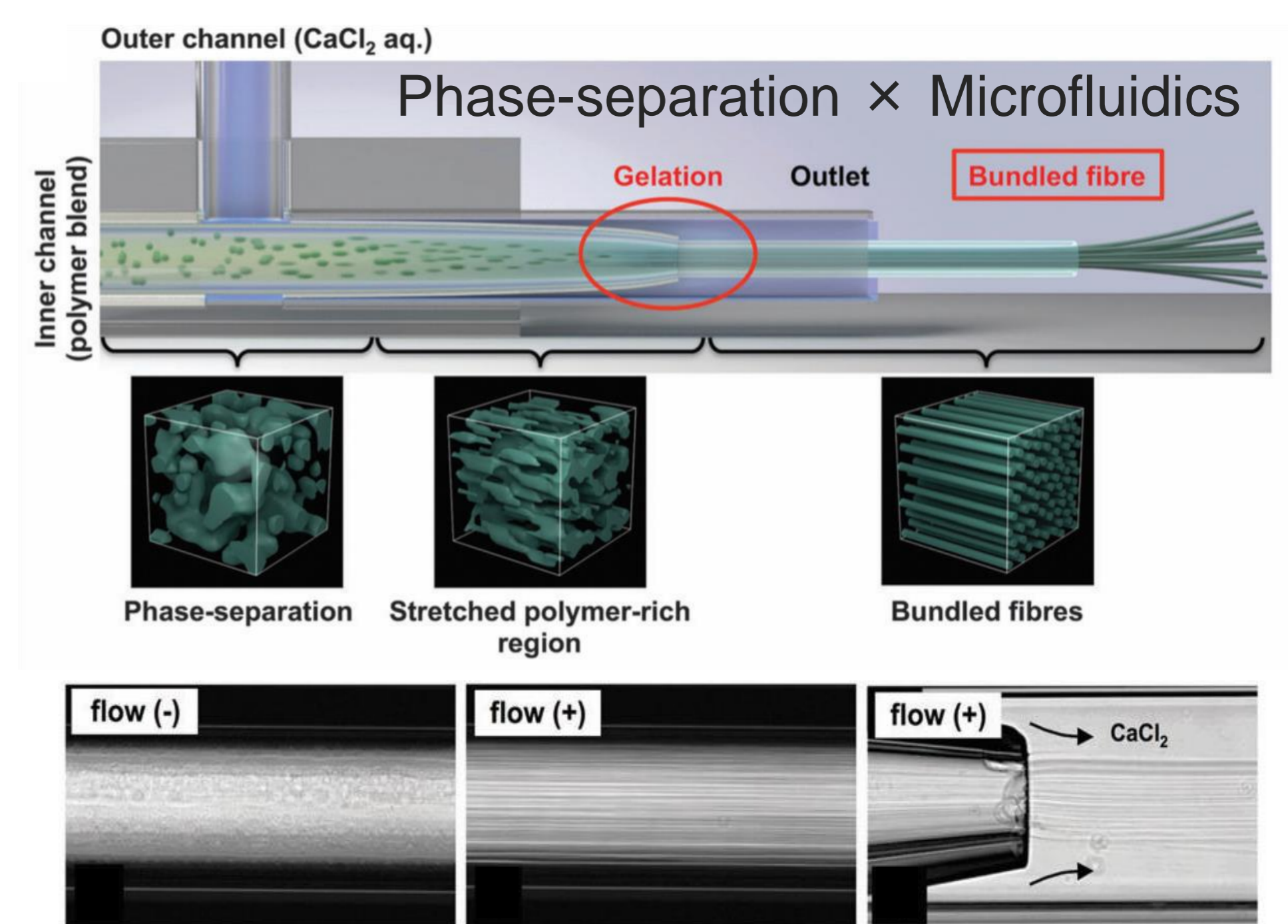
## Fabrication of 3D Living Tissues to Understand Disease Mechanisms



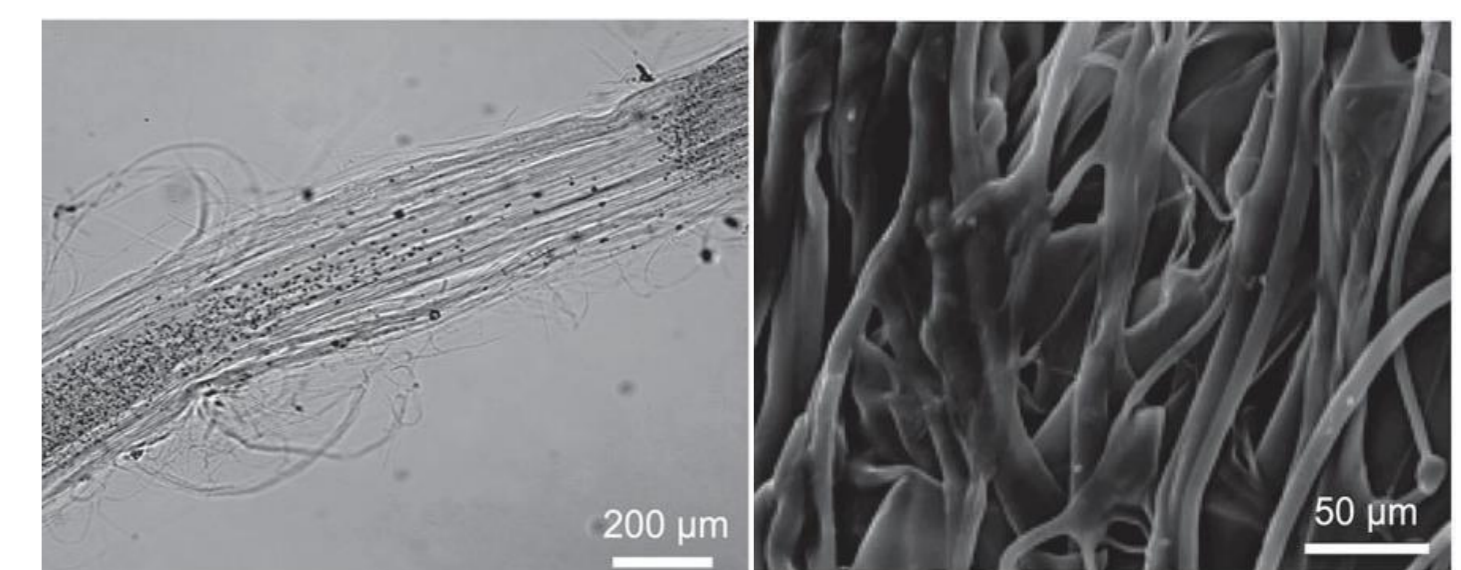
Matsunaga lab has been focusing on bottom-up tissue engineering by unifying biomaterial synthesis, microfabrication and cell biology. Our goal is to develop controllable *in vitro* tissue models enable to “visualize” the microenvironment of tissues from normal to disease state at the cellular and tissue level.

This approach serves a powerful tool for mechanistic understanding of disease and drug discovery.

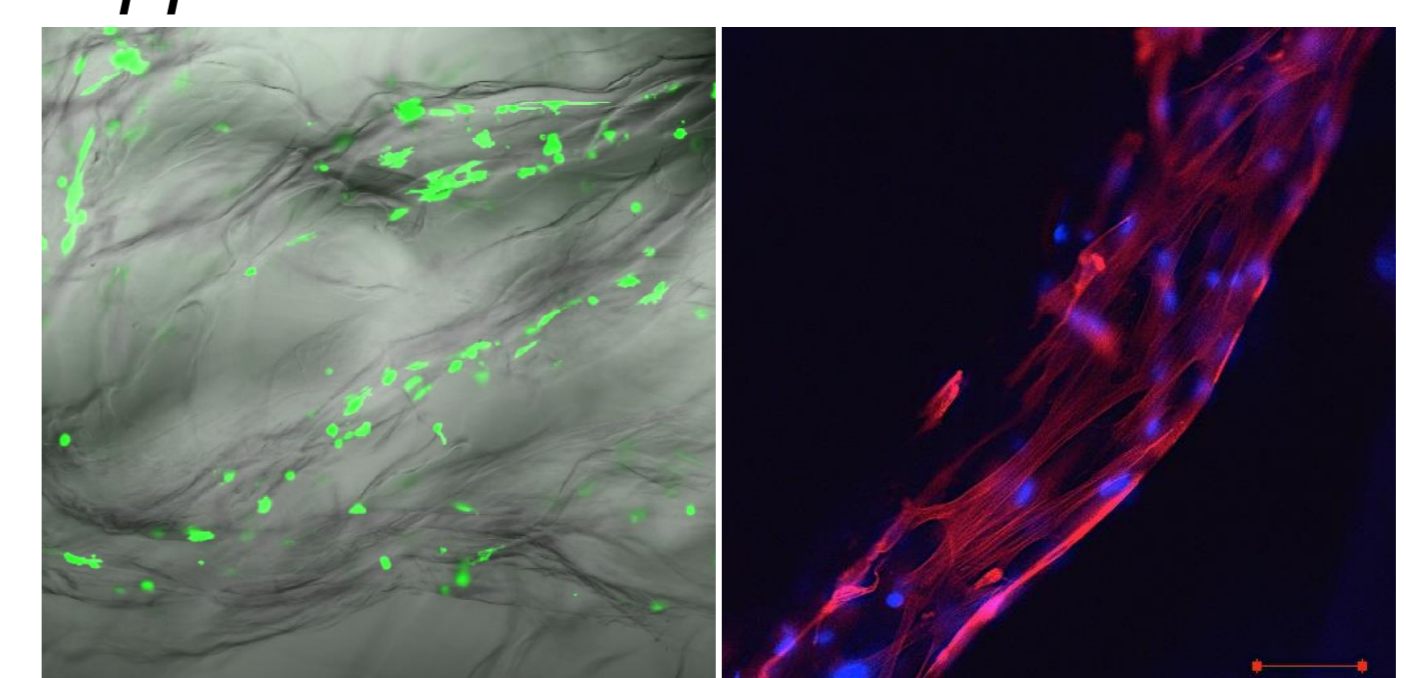
### [Fabrication of Bundled Gel Fibers]



### Bundled Gel Structure



### Application to Scaffold



### [in vitro 3D micro-vasculature model]

