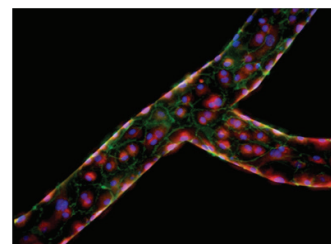
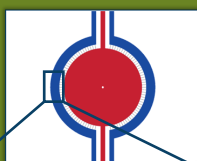


Vasculature-on-a-Chip for Drug Efficacy and Safety Studies

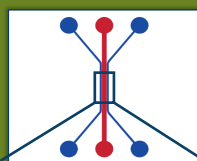
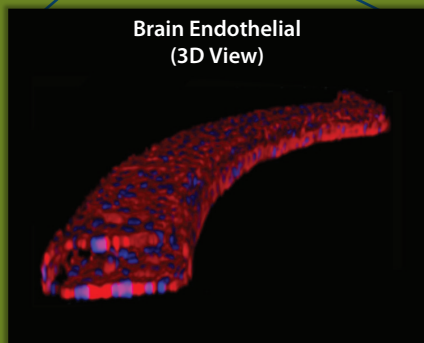
SynVivo's Vasculature-on-a-Chip models accelerates preclinical drug testing by testing compounds for safety and efficacy when administered under physiological flow conditions. Changes in barrier integrity and vascular injury across multiple organ types can be assessed using permeability, TEER, neutrophil adhesion and migration in response to drugs.



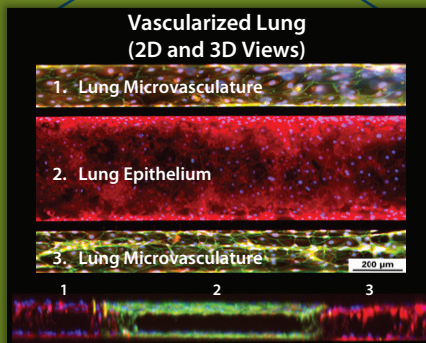
Examples of Vascularized Models on-Chip



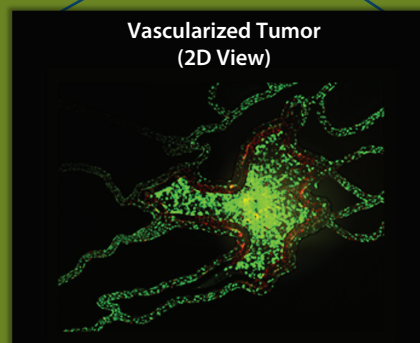
Brain Endothelial
(3D View)



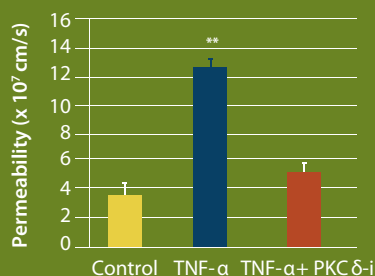
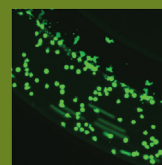
Vascularized Lung
(2D and 3D Views)



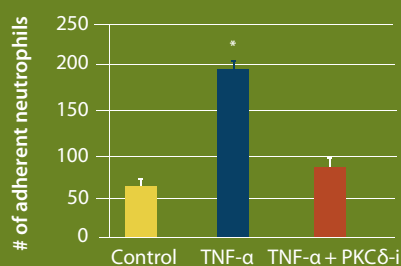
Vascularized Tumor
(2D View)



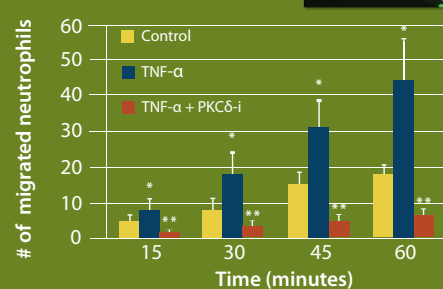
Screen anti-inflammatory therapeutics in organ-matched endothelial vessels



Permeability with
fluorescent dextrans



Neutrophil Adhesion



Neutrophil Migration

Endothelial cells treated with TNF-α display inflammation-induced vascular injury that can be assessed with permeability, TEER, neutrophil adhesion or migration readouts. Anti-inflammatory compound PKC-δ inhibitor was able to prevent TNF-α induced inflammation and vascular leakage.

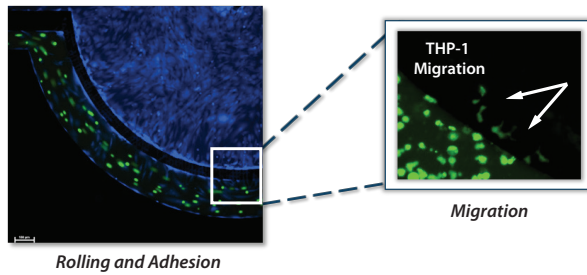
Discover the Future of Drug Testing with Human-Based In Vitro Vascularized Models

Find our publication list at: www.synvivobio.com/publications

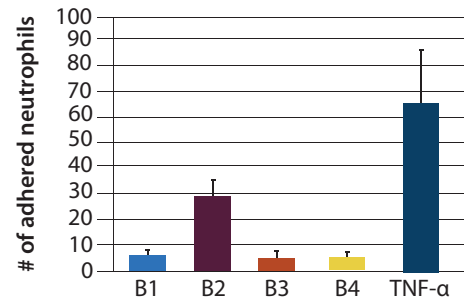
SYNVIVO
www.synvivobio.com

Uncover drug induced vascular injury and inflammation. Assess changes in barrier integrity, monitor vascular injury, and explore the dynamic responses of multiple organ types.

Cardiac Co-culture Model

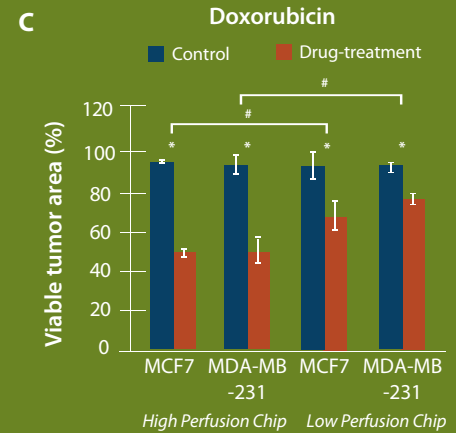
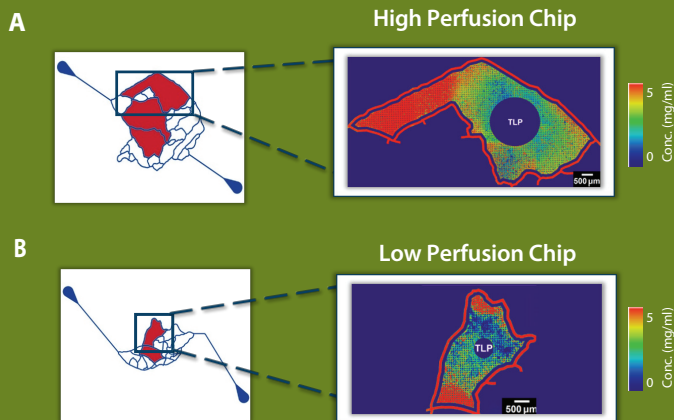


Co-culture of human aortic endothelial cells and cardiac smooth muscle cells treated with drug compounds and assessed for inflammation.



Immune cell adhesion levels on aortic endothelial cells following TNF-α or drug treatment

Assess drug delivery and efficacy in tumors with varying vascular geometries



High Perfusion (A) and Low Perfusion (B) vascular profiles show differences in tumor cell killing (C) with Doxorubicin.

Vasculature-on-Chip models are available in monoculture with primary endothelial cells or co-culture with tissue/stromal cells

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