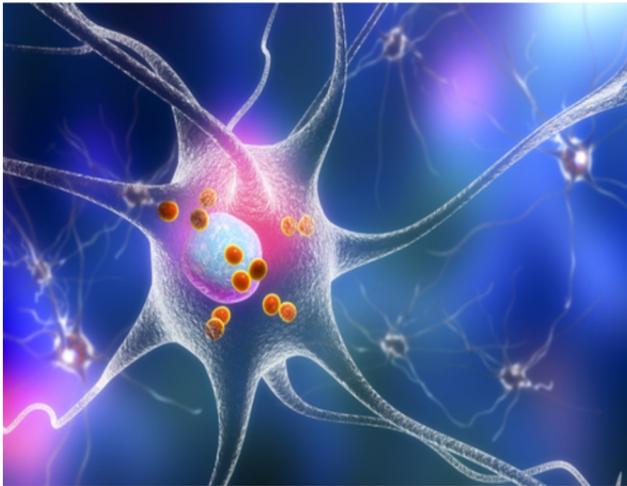


THE RISE OF NAMs

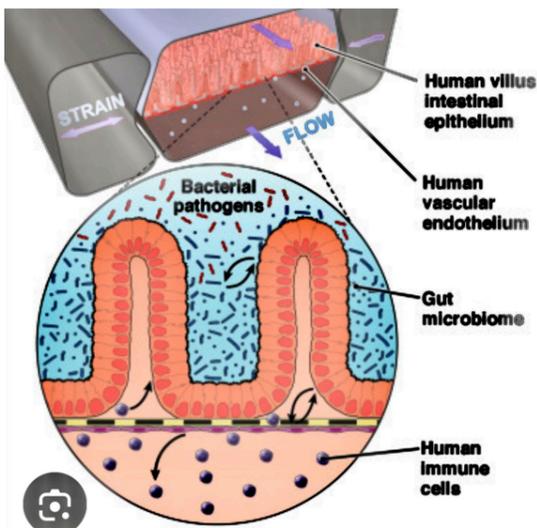
3D TISSUE MODELS ORGANS ON A CHIP ORGANOIDs MICRODOSING

MICROFLUIDIC CHIPS

New Design of 3D 'Organ-On-A-Chip' Device Grows Neurons Most Affected in Parkinson's



Microfluidic Organ-on-a-Chip Models of Human Intestine

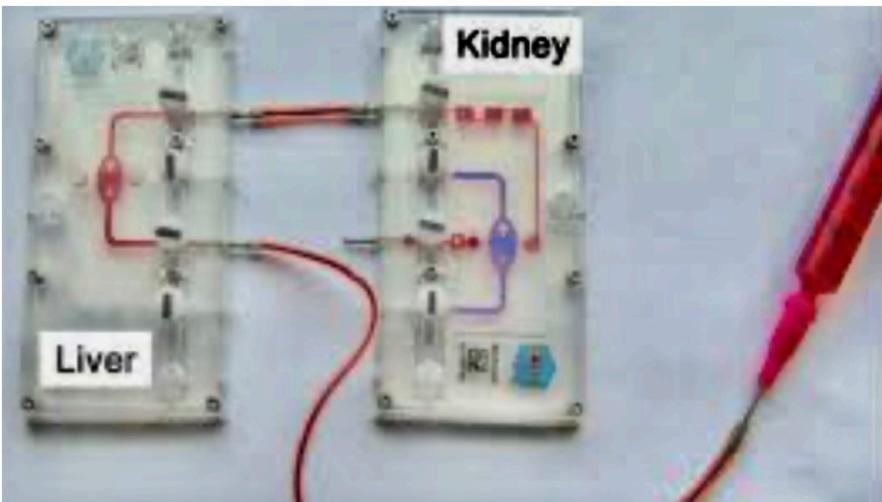


ORGAN ON A CHIP HEART

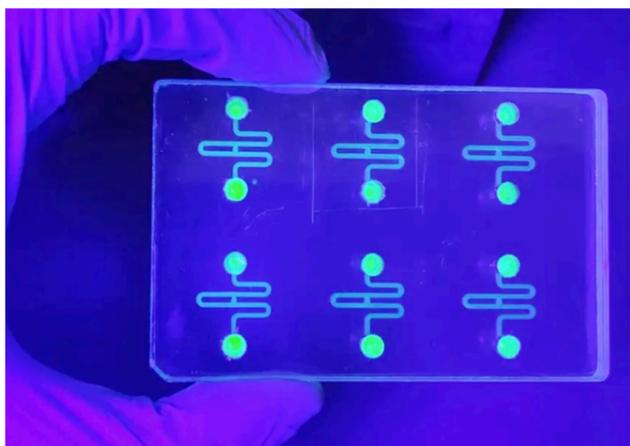
EMULATE BRAIN CHIP - Reproducing the complexity of the brain.

Offers researchers the most comprehensive in vitro model of the human neurovascular unit for preclinical research with five cell types in a dynamic and tunable microenvironment.

ORGAN ON A CHIP LIVER & KIDNEY



Emulate human **Liver-Chip** was able to correctly identify 87% of the tested drugs that caused drug-induced liver injury in patients despite passing animal testing evaluations. These drugs that initially **passed animal testing evaluations ultimately caused nearly 250 deaths and 10 liver transplants**



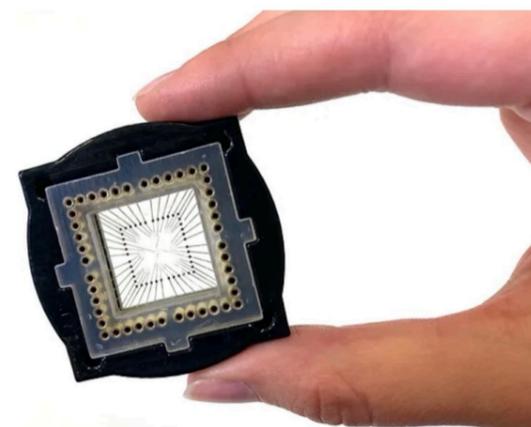
ORGANOIDS-ON-A-CHIP act like a miniature version of the body's organs in the lab.

Scientists have found ways of culturing organ-specific tissue from stem cells that could change the way diseases are studied and treated.



Sensor Driven **Artificial Intelligence** Linking Discovery to Validation

Tissue Dynamics bionic microtissues are three dimensional human organoids embedded with electrooptical sensors that provide critical insight into human-relevant mechanisms. These proprietary physiological models, are powered by unprecedented AI & automation capabilities.



THE RISE OF NAMs

PATIENTS-ON-A-CHIP – Why Artificial Intelligence Will Be the Tipping Point to Remove the Faulty Reliance on Animal Testing in Drug Discovery

ARTIFICIAL INTELLIGENCE (AI)



AI Discovers Drug That Could Slow Down Motor Neuron Disease

<https://www.silicon.co.uk/e-innovation/research/ai-drug-tech-213059>

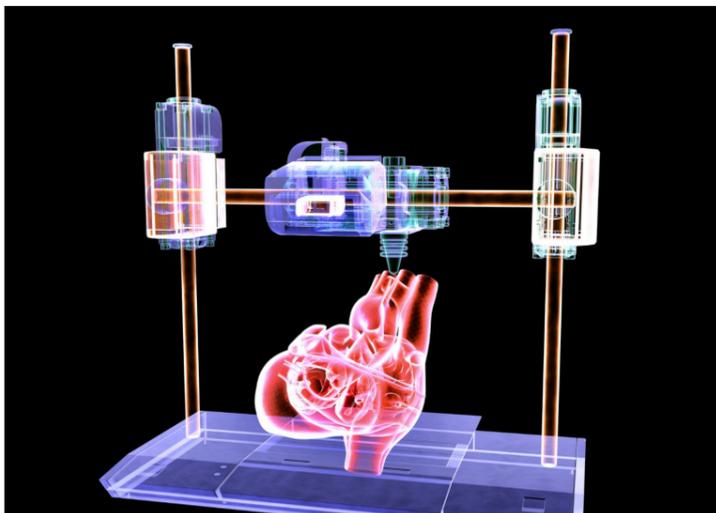
World-first AI model can detect eye diseases and predict systemic health

<https://www.news-medical.net/news/20230913/World-first-AI-model-can-detect-eye-diseases-and-predict-systemic-health.aspx>



Two new Pfizer-coauthored studies validate Novoheart's pioneering human bioengineered heart tissues and chambers for improving drug development

<https://www.novoheart.com/>



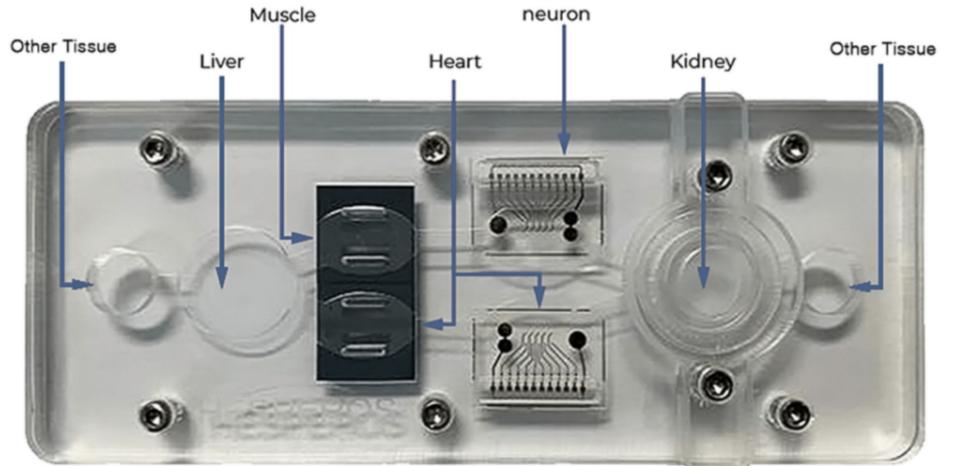
3D BIO PRINTING
Fabricate human tissue samples that provide more physiologically relevant drug testing than animals.

Bioprinted ear successfully transplanted into patient

<https://www.cellink.com/blog/bioprinted-ear-successfully-transplanted-into-patient/>

USING EFFICIENCY DATA COLLECTED FROM A SYSTEM USING HUMAN TISSUES

NEUROMUSCULAR DISORDERS

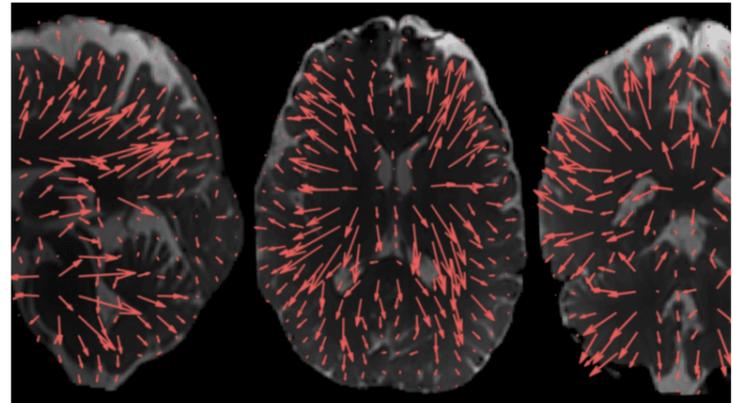


A Platform for every Human Disease

FDA) have authorised the first Phase II human trials The Hesperus human on a chip system replicates rare neuromuscular disorders and finds new treatment, without animal testing.

<https://hesperosinc.com/>

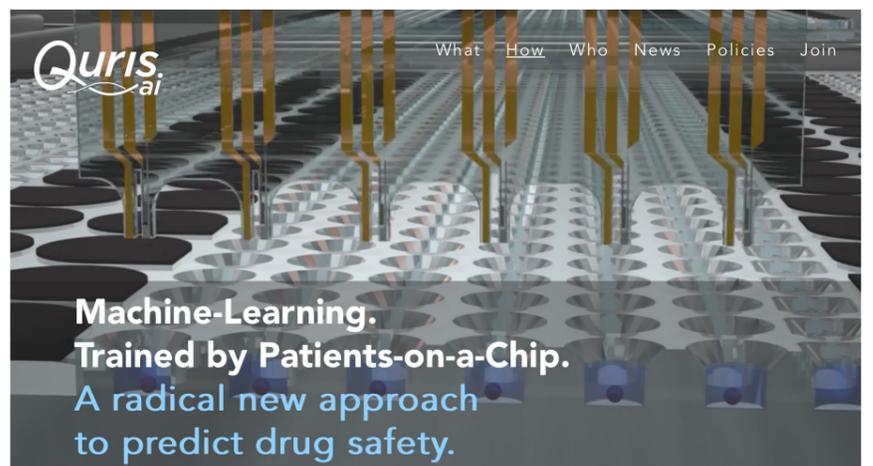
NEW IMAGING TECHNOLOGIES



New 3D MRI Shows the Brain in Detail We've Never Seen Before

Reveals pulsating brain movement which could help researchers to non-invasively visualise brain disorders and inform better treatment strategies for tiny deformations or disorders that obstruct the brain or block the flow of brain

<https://www.clinicallab.com/new-mri-technique-captures-brain-movement-in-stunning-detail-25661>



Quris' Bio-AI Clinical Prediction Platform better predicts which drug candidates will safely work in humans, avoiding tremendous costs of failed clinical trials.

<https://www.quris.ai/>

