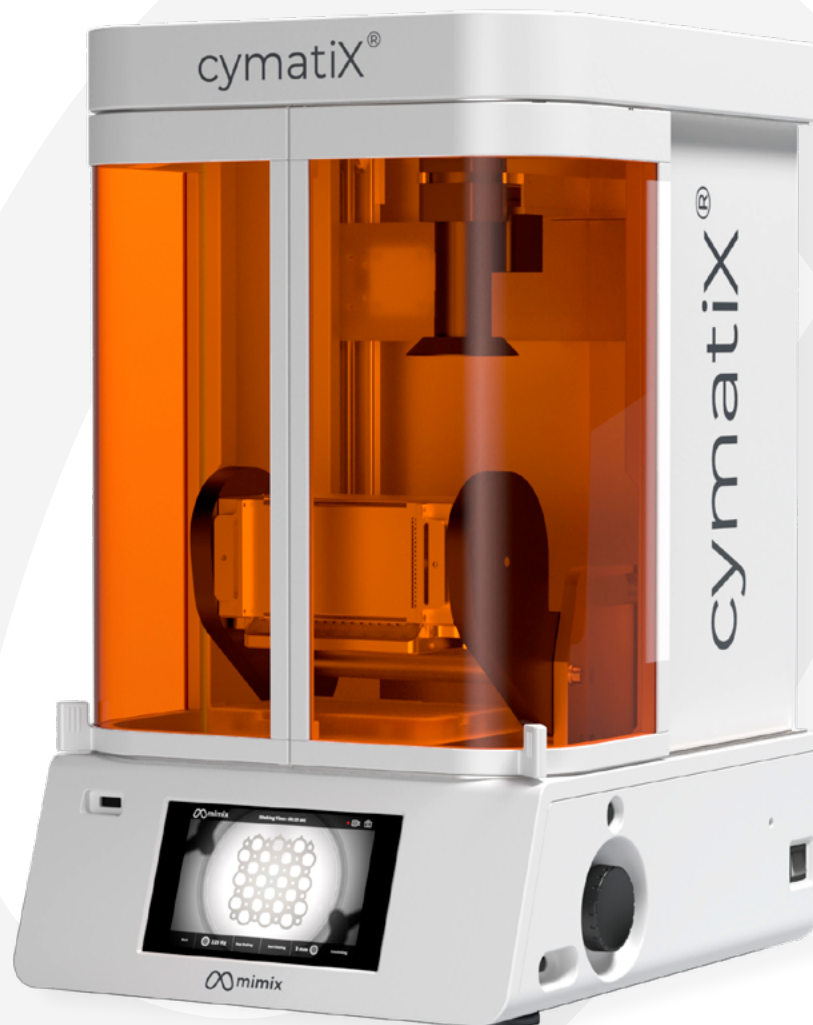


cymatiX[®]

The Future of Bio-Design



www.mimixbio.com

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BRING THE BUILDING POWER OF NATURE TO YOUR LABORATORY

Nature has the incredible building power to create life with the ability to control **Shape & Function**.

With cymatiX® we offer the research community a novel R&D platform to complement and advance the existing biofabrication toolbox.

It provides prospects to overcome significant limitations of conventional methods toward the creation of physiologically relevant engineered tissue constructs and in vitro models.



SHAPE & FUNCTION UNDER CONTROL

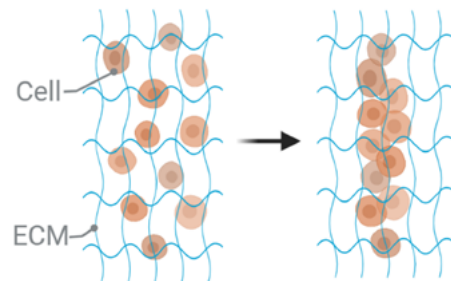
The creation of natural complex morphology of tissue & organs implies that cells communicate, organize, and localize anisotropically.

The cymatiX® is a radically new technology platform to produce functional large-scale organoids and tissues.

Overcoming the major challenges in conventional biofabrication approaches by controlling cell density enhancement and pattern formation.

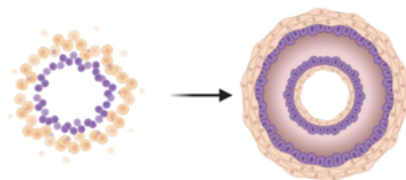
1

CELL DENSITY ENHANCEMENT



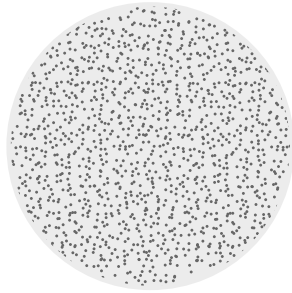
2

CONTROLLED PATTERN FORMATION



THE BUILDING PRINCIPLE

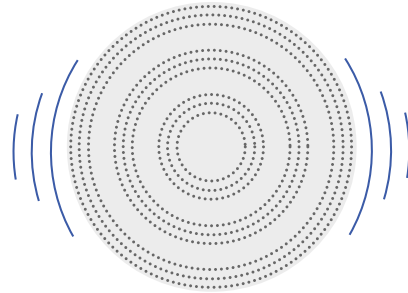
1



LOADING

Biologicals – Cells, spheroids, organoids or non-biological particles are dispersed in a hydrogel and loaded into cymatiX® carrier.

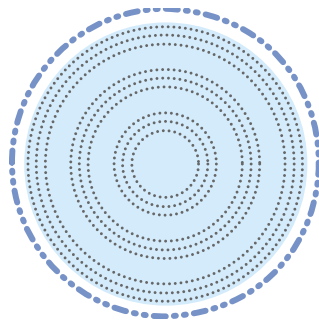
2



SONICATION

A sound induced vibration profile is generated, particulates condense and form aggregates into desired pattern within seconds.

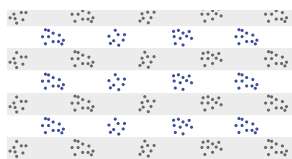
3



CROSSLINKING

Stabilizing the patterned particulates within the hydrogel by crosslinking. Using different stimuli (light, enzymatic, or thermal crosslinking) depending on the material and application.

4



STACKING

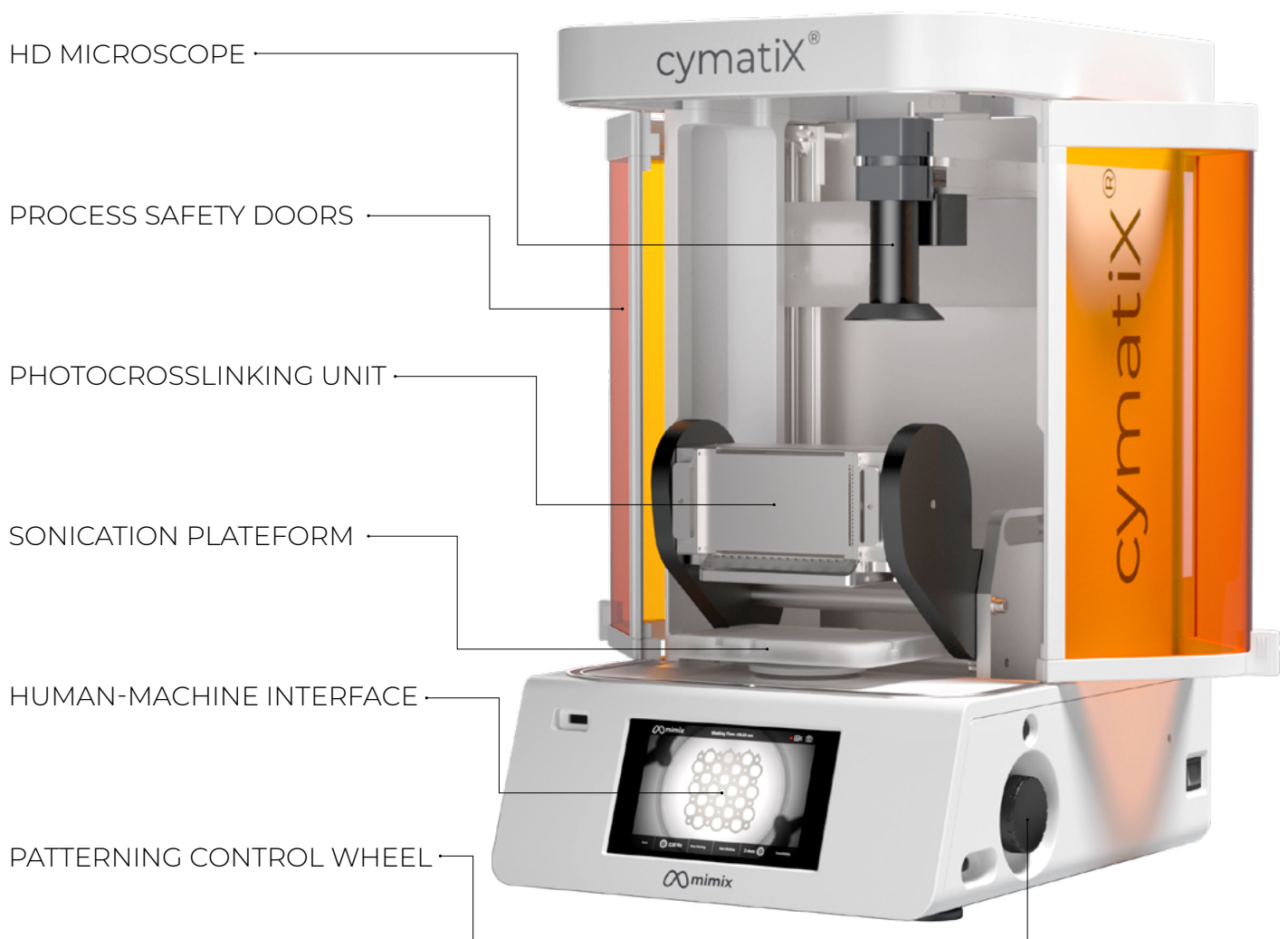
Create three-dimensional (3D) architectures by layer stacking.

AN EVOLUTIVE DESIGN TAILORED TO YOUR NEEDS

A tabletop standalone device compatible with any lab hood or biosafety cabinet.

cymatiX® builds on an evolutive & upgradable architecture with cross-linking, thermal management and predictive design tools.

To meet the needs of every project, we continually develop intelligently designed process features to extend the capabilities and performance range.



TECHNICAL SPECIFICATIONS

Frequency range	0 – 1kHz
Dimensions (L x W x H)	380 x 300 x 510 mm (15 x 10 x 18 in)
Power Supply	AC 100 – 120V, 50/60Hz, 10A or AC 200 – 240V, 50/60Hz, 5A
Weight	15kg (20 lbs.)
Building plate	130 x 90mm , SLAS Standard

ADD-ONS

PHOTO-CURING

Lamp 485nm	#LC485.00
Lamp 405nm	#LC405.00
Lamp 385nm	#LC385.00
Lamp 365nm	#LC365.00
THERMO-CURING	
T-Plate	#TP500.00

LABWARES & BIOMATERIALS PORTFOLIO

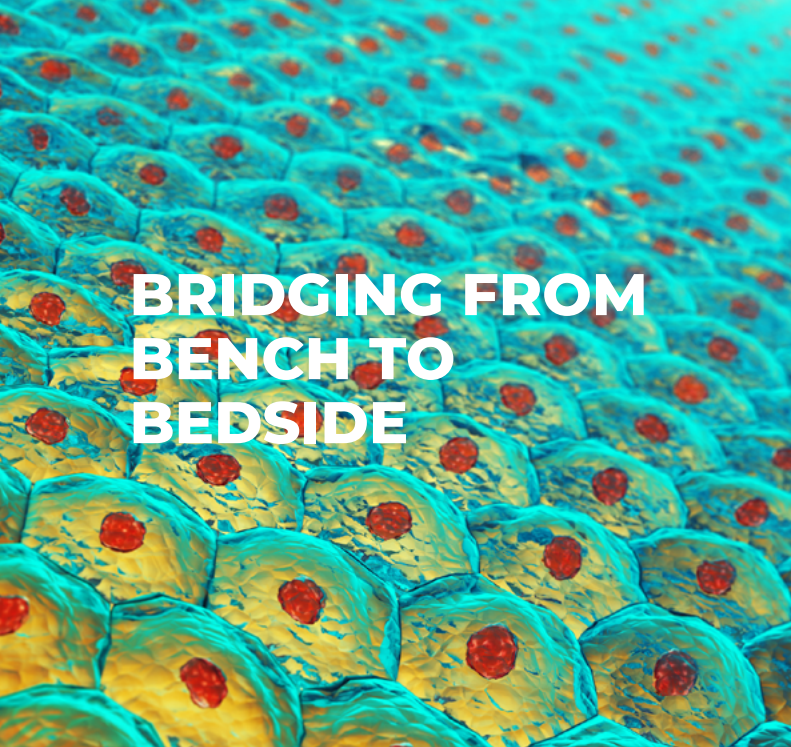
To support your research & development, we have established a user and application-oriented biomaterials portfolio.



FIND MORE ON [MIMIXBIO.COM](https://mimixbio.com)

APPLICATION EXAMPLES

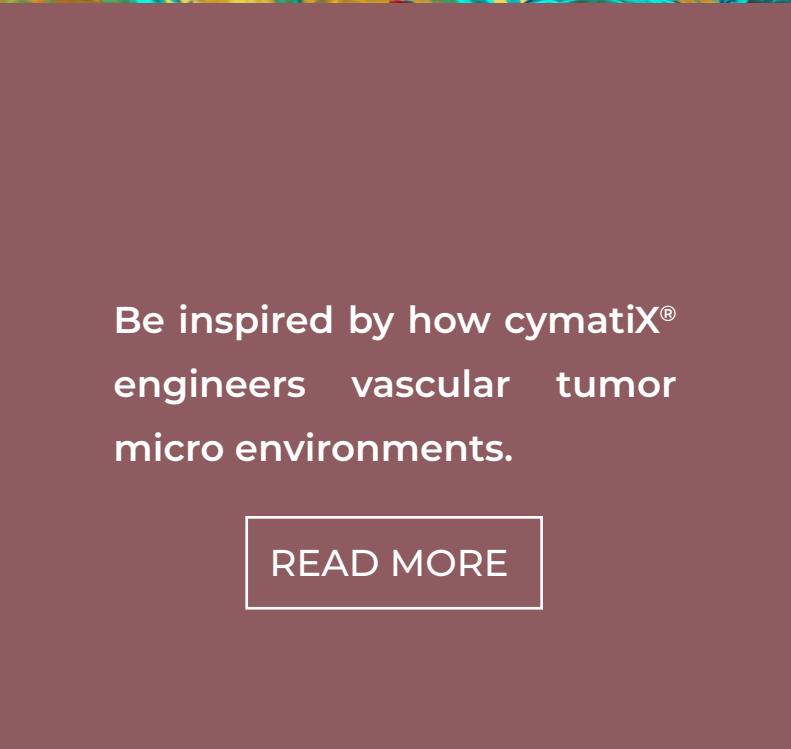




BRIDGING FROM BENCH TO BEDSIDE

Discover how high local cell density condensation by sound leads to enhanced vascular structures.

[READ MORE](#)



Be inspired by how cymatiX® engineers vascular tumor micro environments.

[READ MORE](#)




TUMOR MODEL



PAIN MODEL

Discover how cymatiX® engineers an in vitro model to study pain.

[READ MORE](#)



IN VITRO VASCULARIZATION

Discover how sound induced endothelial cell condensation leads to the formation of stable vascular structures.

[READ MORE](#)

Local densification and fibrillogenesis of collagen

[READ MORE](#)



SCULPTURING EXTRACELLULAR MATRIX



ENGINEERING MUSCULOSKELETAL TISSUE

Micro-pellet patterning within hydrogels to control cell sprouting.

[READ MORE](#)