

3DBOC CORE TEAM

**Associate
Professor,**
Physiology &
Biophysics

MEDHA PATHAK, PHD - **Director**

The Pathak lab focuses on understanding how mechanical forces modulate neural stem cell fate in development and repair. our studies reveal Piezo activity in neural stem cells is modulated by matrix mechanics.



**Assistant
Professor,**
Chemical &
Biomolecular
Engineering

QUINTON SMITH, PHD - **Associate Director**

The Smith lab focuses on bridging the gap between fundamental stem cell biology and the clinical application of stem cell derivatives, leveraging organ-on-chip platforms and 3D bioprinting.



**Assistant
Professor,**
Chemical &
Biomolecular
Engineering

HERDELINE ARDOÑA, PHD

The Ardoña lab employs transformative molecular engineering approaches to seamlessly control or probe biological phenomena involving excitable cells using engineered biomolecules.



**Assistant
Professor,**
Anatomy &
Neurobiology

MOMOKO WATANABE, PHD

The Wantabe lab focus is to assess human specific brain development and diseases using brain organoids derived from human embryonic stem cells (hES cells) and induced pluripotent stem cells (iPS cells).



**Associate
Professor,**
Chemical &
Biomolecular
Engineering

TAYLORIA ADAMS, PHD

The Adams lab utilizes electrokinetic techniques and microfluidic platforms to understand the heterogeneity of cancer and stem cell populations. "We push cells around for therapeutics".



BIO X 3D BIOPRINTER

01.

Advanced Functionality and Versatility

The BIO X's compatibility with virtually any material makes it the bioprinter of choice for industry leaders at the forefront of today's biggest scientific breakthroughs. Whether you are automating 3D cell cultures, developing complex tissue constructs, or testing new drug compounds, the BIO X 3D bioprinter has the advanced functionality and versatility to streamline workflows in a wide range of application areas.



02.

BIO X is the first 3D bioprinter in the world with Intelligent Printheads (iPH).



03.

Patented Clean Chamber for better cell safety

Dual high-powered fans channel air through a HEPA H14 filter, designed to remove 99.995% of unwanted particles and microorganisms, and a part of the Clean Chamber™ technology, which also includes UV-C germicidal lights and rounded edges.

Initiate Clean Chamber before beginning your experiment to ensure a cleaner environment in the chamber.

[Learn More](#)

BIONOVA DLP 3D BIOPRINTER

01.

Bringing Direct In-Well Printing to Light-based Bioprinting

The cutting-edge BIONOVA X is a high throughput, high speed and high precision DLP 3D bioprinter, bringing light-based bioprinting to an entirely new level.

By enabling multi-material bioprinting and multi-stiffness bioprinting, as well as live cell printing, users can recapitulate *in vivo* biomechanical properties with ease. The biofabrication of more accurate *in vitro* models enables greater results across the world of tissue engineering.



02.

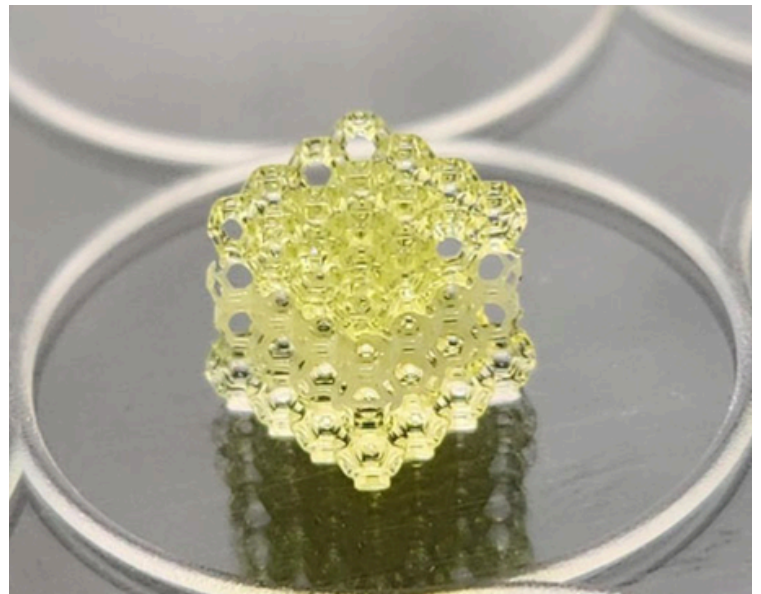
An open material platform designed for you

10 μ m
Printing Resolution

6 - 96
Multi-well plate Support*

RT - 60 °C
Temperature Range

Print directly in 6-, 12-, 24- and 96-
well plates



[Learn More](#)