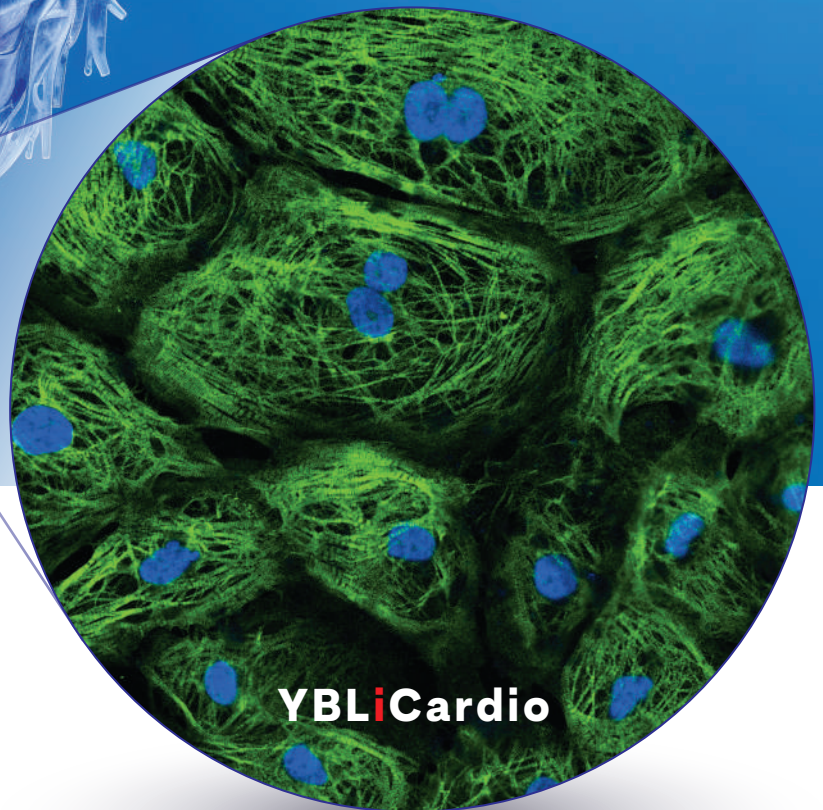




Transform your Cardiac Research



YBLiCardio

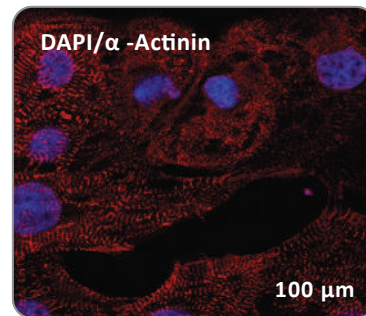
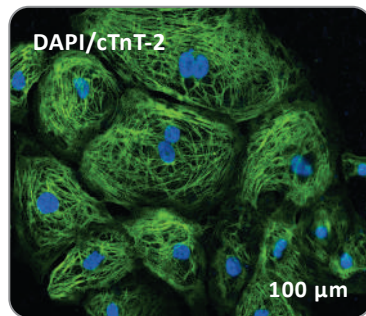
CiPA validated hiPSC Cardiomyocytes

- Seeding efficiency > 80% and purity > 90%
- >90% viability post-cryopreservation
- Scalability for research and industrial applications
- Compatibility with Bioprinting platforms
- Comprehensive platform for drug response assessment

High-quality products and services for accelerated drug discovery

- Viral integration-free clones for cellular assays and screening.
- Differentiation into multiple cell lineages and in vitro assays using **hiPSC** derivatives or primary cells.
- Disease modeling by reprogramming patient PBMCs into desired cell lineages.

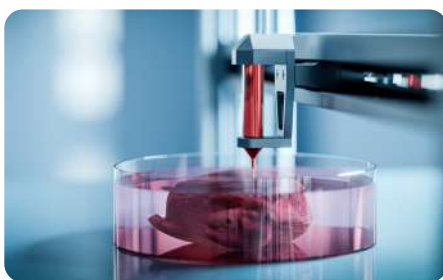
Advancing cardiac regeneration with high-fidelity patches



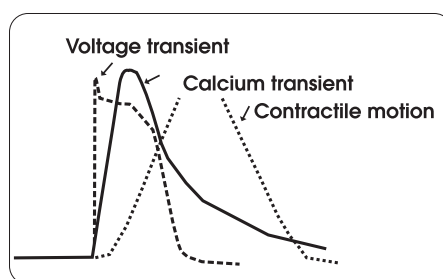
YBLiCardio for Bioprinting applications

- Excellent bioink extrusion properties for 3D Bioprinting.
- Achieves steady-state geometry while retaining its printed structure.
- High viability supports the formation of an aligned, contractile syncytium.
- Displays normal calcium handling and conduction velocity, akin to adult cardiac tissues.

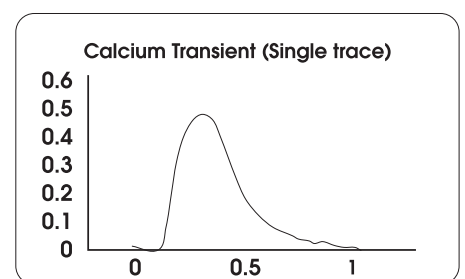
High fidelity cardiac tissues displaying normal calcium handling that is similar to adult cardiac tissues



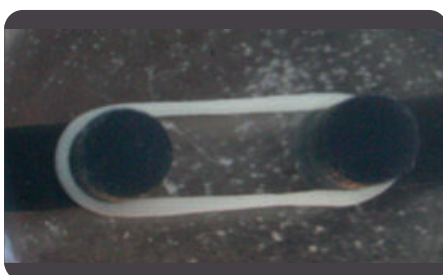
3D Bioprinting



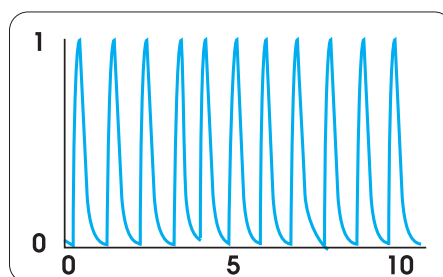
Native Heart Tissue



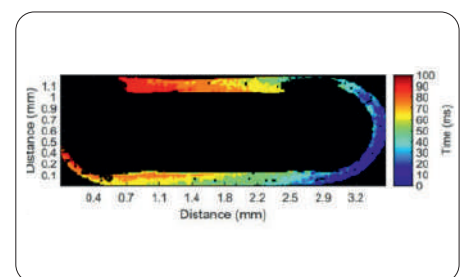
YBLiCardio Tissue



Day 14



Calcium Transient (time series)



Calcium Wave Propagation

A CiPA validated model for drug safety screening

High Purity & Reliability

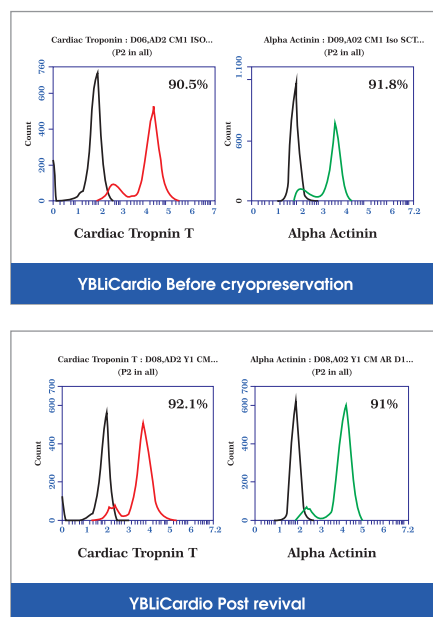


Fig 1: YBLiCardio marker expression analysis using Flow Cytometry

Acute & Chronic drug response with YBLiCardio

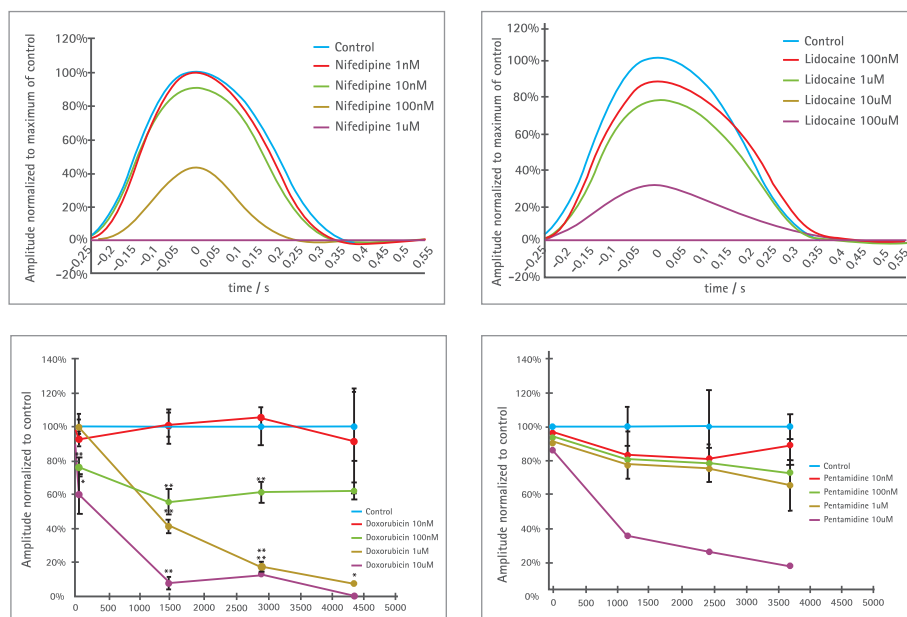


Fig 2: Acute toxicity response of Nifedipine (Ca^{2+} antagonist) and Lidocaine (Na^{+} antagonist) and chronic toxicity response of Doxorubicin and Pentamidine: hERG traffic blocker on YBLiCardio

Excellent response to Gold standard tool compounds in acute & chronic toxicity assessment

Comprehensive in vitro Proarrhythmia Assay (CiPA)
assessment of tool compounds on YBLiCardio.



% Prolongation of QT intervals

Compound	HESI Prediction	YBLiCardio
Verapamil	Low	79%
Cisapride	Intermediate	86%
Diltiazem	Low	93%
Nitrendipine	Low	97%
Clozapine	Intermediate	106%
Loratadine	Low	106%
Clarithromycin	Intermediate	107%
Metoprolol	Low	109%
Risperidone	Intermediate	111%
Tamoxifen	Low	113%
Nifedipine	Low	113%
Terfenadine	Intermediate	116%
Ondansetron	Intermediate	122%
Mexiletine	Low	124%

Compound	HESI Prediction	YBLiCardio
Pimozide	Intermediate	130%
Ranolazine	Low	133%
Chlorpromazine	Intermediate	133%
Astemizole	Intermediate	139%
Dofetilide	High	165%
Ibutilide	High	166%
Droperidol	Intermediate	173%
Vandetanib	High	176%
Azimilide	High	176%
Domperidone	Intermediate	182%
Disopyramide	High	217%
Quinidine	High	249%
Sotalol	High	275%
Bepridil	High	344%

High Risk - 165% - 344% Intermediate Risk - 113% - 139% Low Risk 79% - 113%

Fig 3: YBLiCardio shows response in full accordance to the HESI Risk Prediction.

YBLiCardio is compatible with various platforms, enabling the study of diverse cellular functions and assay endpoints:

- Disease modeling
- Phenotypic screening
- Proarrhythmia detection
- Acute & Chronic toxicity assessment
- Target identification
- 3D Bioprinting

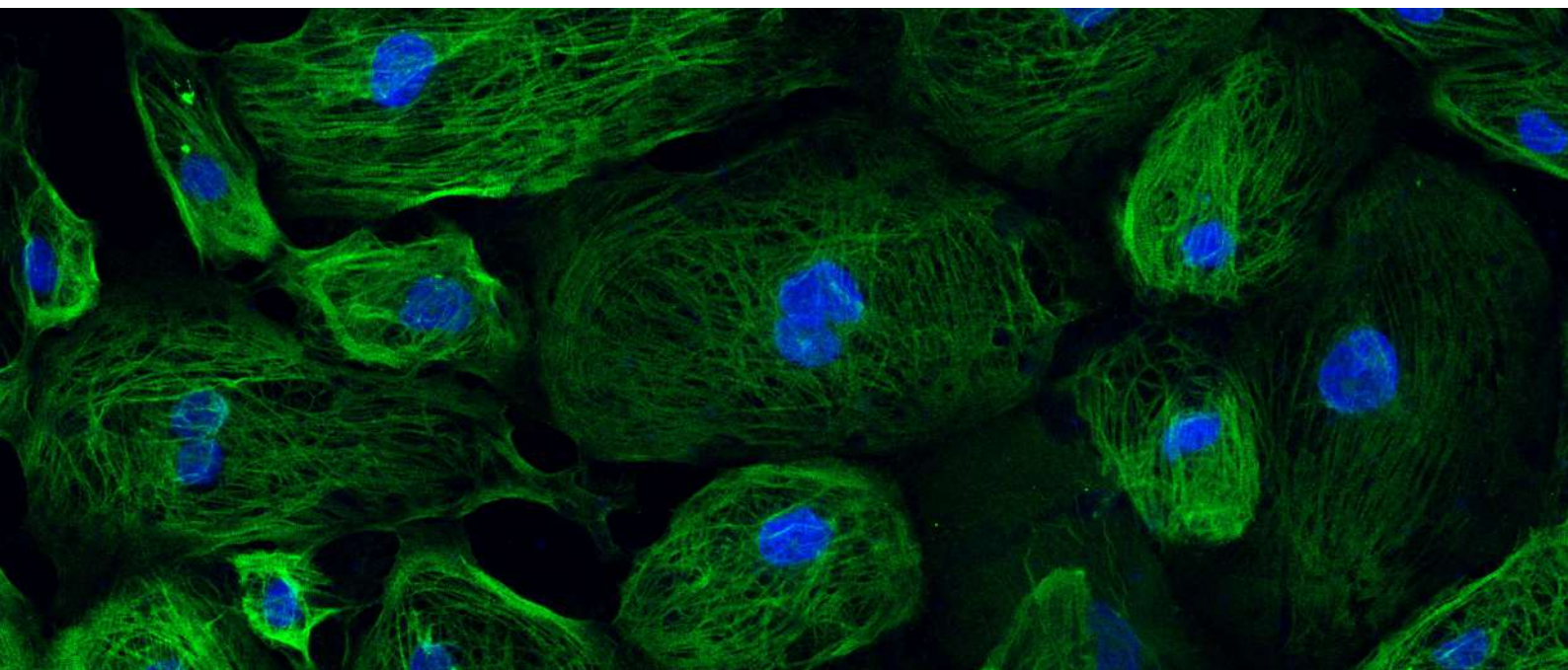


YBLiCardio produced high-fidelity cardiac tissues with excellent cardiomyocyte viability, forming aligned, contractile syncytia, and demonstrated normal calcium handling and conduction velocity, closely resembling adult cardiac tissues.

— **Dr. Andrew Lee**, *Head of Bioprinting at FluidForm, US.*

YBLiCardio are highly robust hiPSC-CM cells showing excellent responses to gold standard compounds, enabling straightforward application in drug discovery, safety and toxicity studies, performing comparable to existing products.

— **Dr. Matthias Gossmann**, *CEO innovitro GmbH*



**COME JOIN US &
DRIVE INNOVATION FOR MAKING A HEALTHIER WORLD!**

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