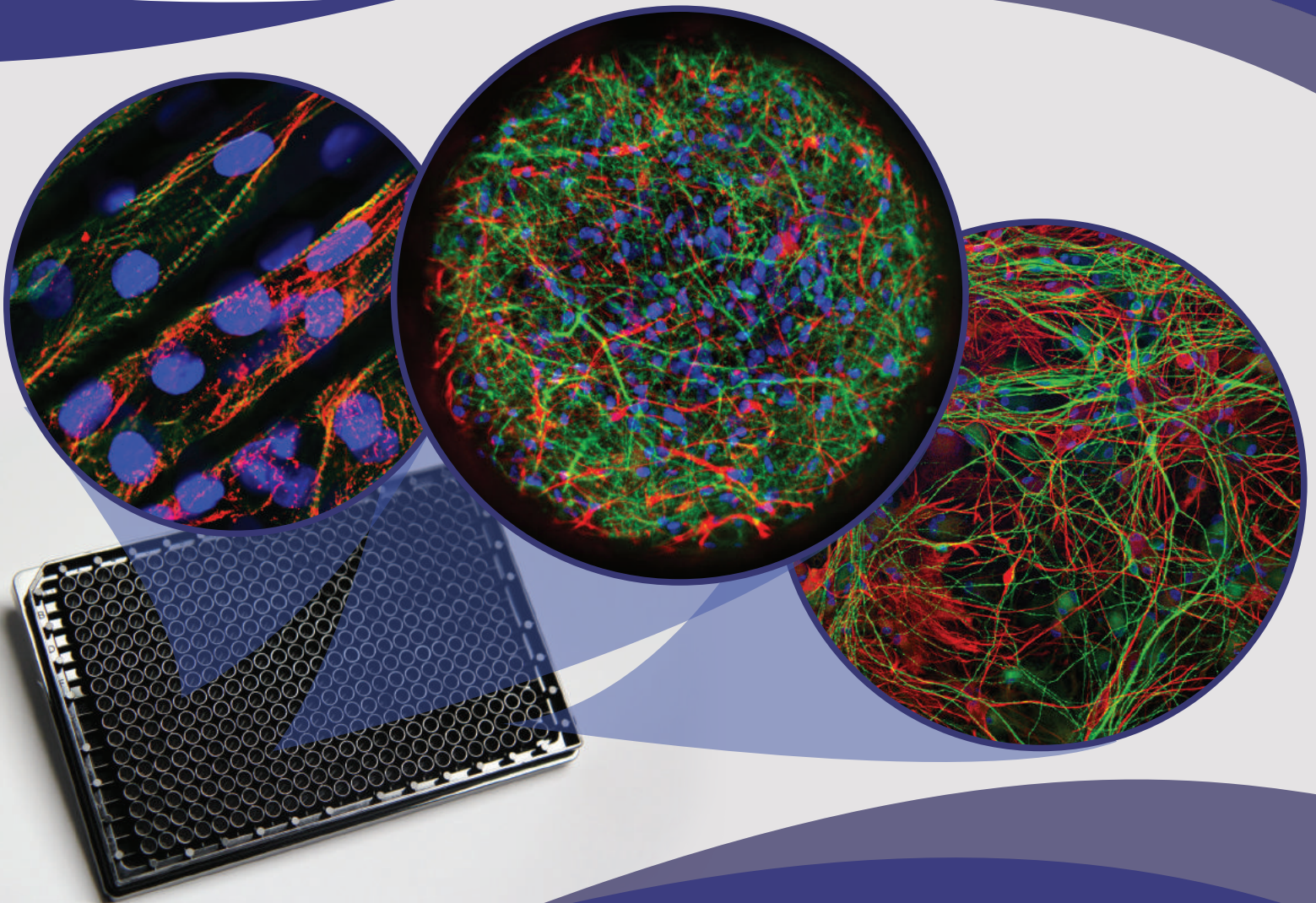


StemoniX



Discovery as a Service

Structure Leads to Improved
Cell-Based Assay Outcomes

Discovery as a Service

StemoniX® Discovery as a Service (DaaS) provides you access to physiologically relevant human induced pluripotent stem cell (iPSC)-based platforms with enhanced performance for drug discovery and development. From cells to assays to data, we leverage expertise in cardiac and neural cell-based platforms and drug discovery and development to generate high quality, consistent results for your custom service needs including:

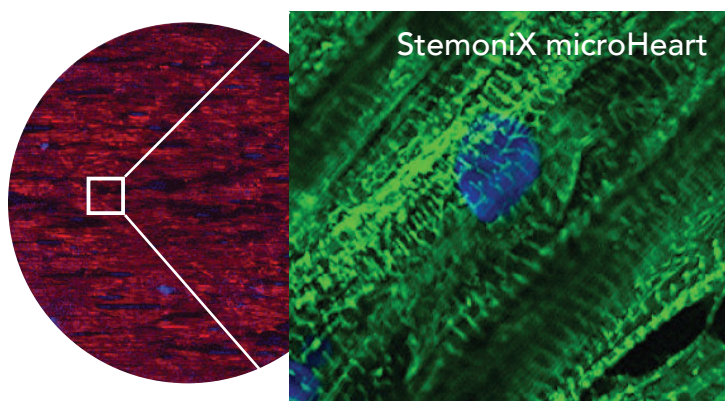
- Disease Modeling
- Assay Development
- Drug Screening (Efficacy and Toxicity)
- Human iPS Cell Manufacturing

Physiologically Relevant Human iPSC-Based Cardiac and Neural Platforms

StemoniX DaaS capabilities include development and manufacture of high quality human iPS-derived cardiomyocytes and neural cells, assay development, disease modeling, and compound screening.

For cardiac-based projects, the StemoniX **microHeart®** platform:

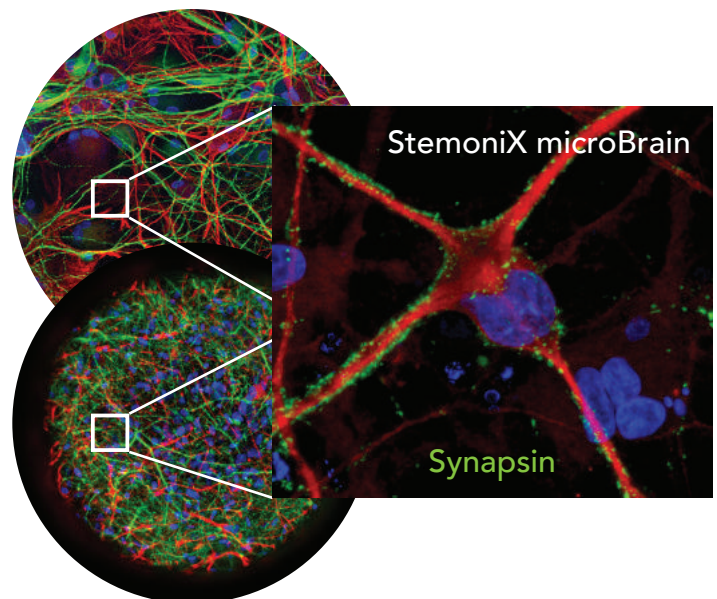
- Consists of pre-plated human iPSC-derived cardiomyocytes aligned into physiologically relevant structures that closely represent human heart tissue
- Accelerates features of cell maturity
- Results in functionality and responses that can improve assay outcomes



Cardiomyocytes plated on microHeart display readily identifiable and aligned sarcomeres

For neuro-based projects, the StemoniX **microBrain®** platform:

- Is a pre-plated neural culture in monolayer (microBrain Assay Ready) or 3D spheroid (microBrain 3D Assay Ready) format
- Consists of mature human cortical neurons and astrocytes derived from a single source
- Demonstrates highly functional synaptic networks closely resembling human brain tissue for improved assay outcomes

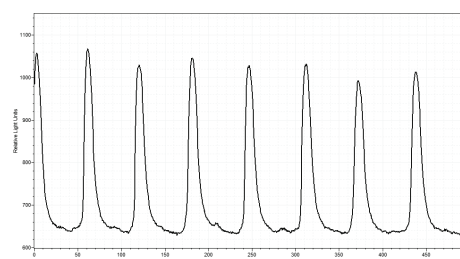


microBrain monolayer and 3D spheroid cultures display extensive neural networks of functional neurons (glutamatergic and GABAergic), astrocytes, and well-developed synapses (Synapsin)

Capabilities and Applications

StemoniX Discovery as a Service offers a full range of expertise and capabilities for *in vitro* disease modeling, assay development, and functional and phenotypic high throughput screening. StemoniX conducts DaaS projects leveraging StemoniX microBrain and microHeart iPSC-derived cell-based multiwell platforms, with StemoniX iPS-derived cell lines and customer provided cell lines. StemoniX supports DaaS projects with an infrastructure of state-of-the-art screening platforms:

- High Throughput Kinetic Plate Reader
- High Content Imaging
- Microelectrode Array (MEA)
- Multi-Mode Plate Reader
- Automated Liquid-Handling

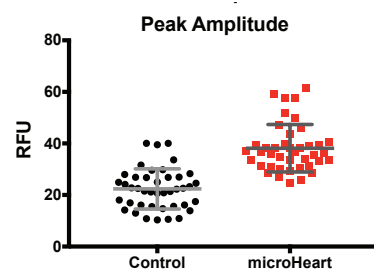


Synchronous spontaneous calcium oscillations from microBrain 3D Assay Ready

Applications of Discovery as a Service

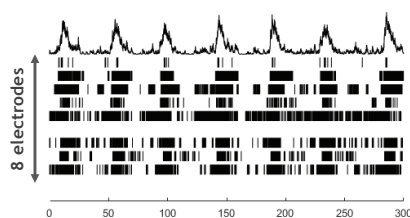
Relevant examples of Disease Modeling, Assay Development, and Drug Screening applications using StemoniX platforms and capabilities include:

Cell Types	Disease Modeling & Assay Development	Drug Discovery & Screening
Neural	<ul style="list-style-type: none"> • Chemically-Induced Models (e.g. Seizure) • Neuroinflammation • Neurodegenerative Patient-Derived Cells • Mood Disorder Patient-Derived Cells 	<ul style="list-style-type: none"> • Drug Efficacy • Neurotoxicity • Phenotypic Screens • Targeted Screens • Neural Network Modulation – Synapses and Dendrites • Neural Electrophysiology (Neural Firing)
Cardiac	<ul style="list-style-type: none"> • Unidirectional Alignment with microHeart® • Acquired Long QT Syndrome • Cardiac Hypertrophy and Fibrosis • Genetic/Infection-Induced Cardiomyopathies 	<ul style="list-style-type: none"> • Cardiotoxicity • Drug Efficacy • Phenotypic Screens • hERG Channel Liabilities (Long QT) • Membrane Potential (Voltage) • Cardiac Electrophysiology (Contraction)

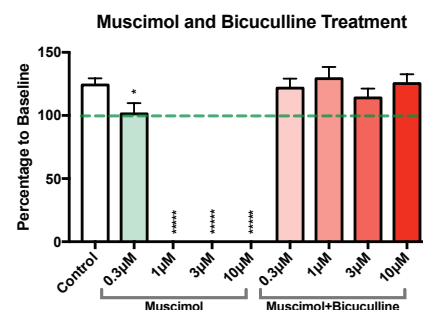


High throughput calcium flux analysis indicates faster and more efficient calcium handling of human cardiomyocytes in microHeart

Significance in unpaired t-test, **** p<0.0001
Measurements made with a Molecular Devices
FLIPR Tetra® High-Throughput Cellular Screening System



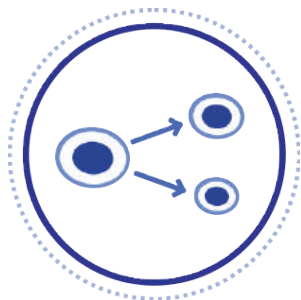
MEA traces of microBrain show robust synchronous electrophysiological activity at the network level



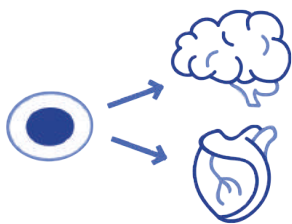
microBrain exhibits a responsive GABAergic circuit

Manufacturing Services – Millions to Billions

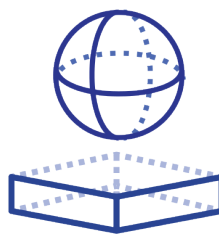
Leveraging StemoniX cell-based manufacturing platforms, we offer development and manufacturing services to:



Expand your iPS cells



Differentiate to organ cells



Shape for physiological relevance

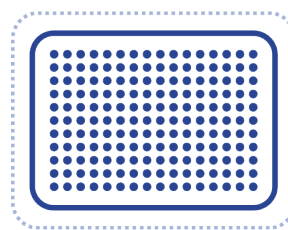


Plate for high throughput drug screening

With our scalable, differentiation-ready manufacturing offerings, we can convert millions of your cells to billions of high quality iPS and iPS-derived cells including:

- Cardiomyocytes
- Neural Progenitor Cells
- Cortical Neuron (Glutamatergic and GABAergic) and Astrocyte Balanced Culture
- 3D Neural Spheroid

StemoniX can shape and plate your cells to create custom, pre-plated microHeart Assay Ready, microBrain Assay Ready, and microBrain 3D Assay Ready plates. These plates are manufactured with a rigorous quality system and delivered under ambient shipping conditions to your facility, ready for assay use after a brief preparation process. Each StemoniX Assay Ready product format in the table below is available as a custom product with your cells.

StemoniX Assay Ready Products

Product Name	Catalog #
microHeart® Assay Ready 96-Well Plate	MHARX-AA-0096
microHeart® Assay Ready 384-Well Plate	MHARX-AA-0384
microHeart® Assay Ready 1536-Well Plate	Call for availability
microBrain® Assay Ready 96-Well Plate	Call for availability
microBrain® Assay Ready 384-well plate	BCARX-AA-0384
microBrain® 3D Assay Ready 96-Well Plate	Call for availability
microBrain® 3D Assay Ready 384-well plate	BSARX-AA-0384

Contact StemoniX

Customer Service 855-783-6669

info@stemonix.com

www.stemonix.com