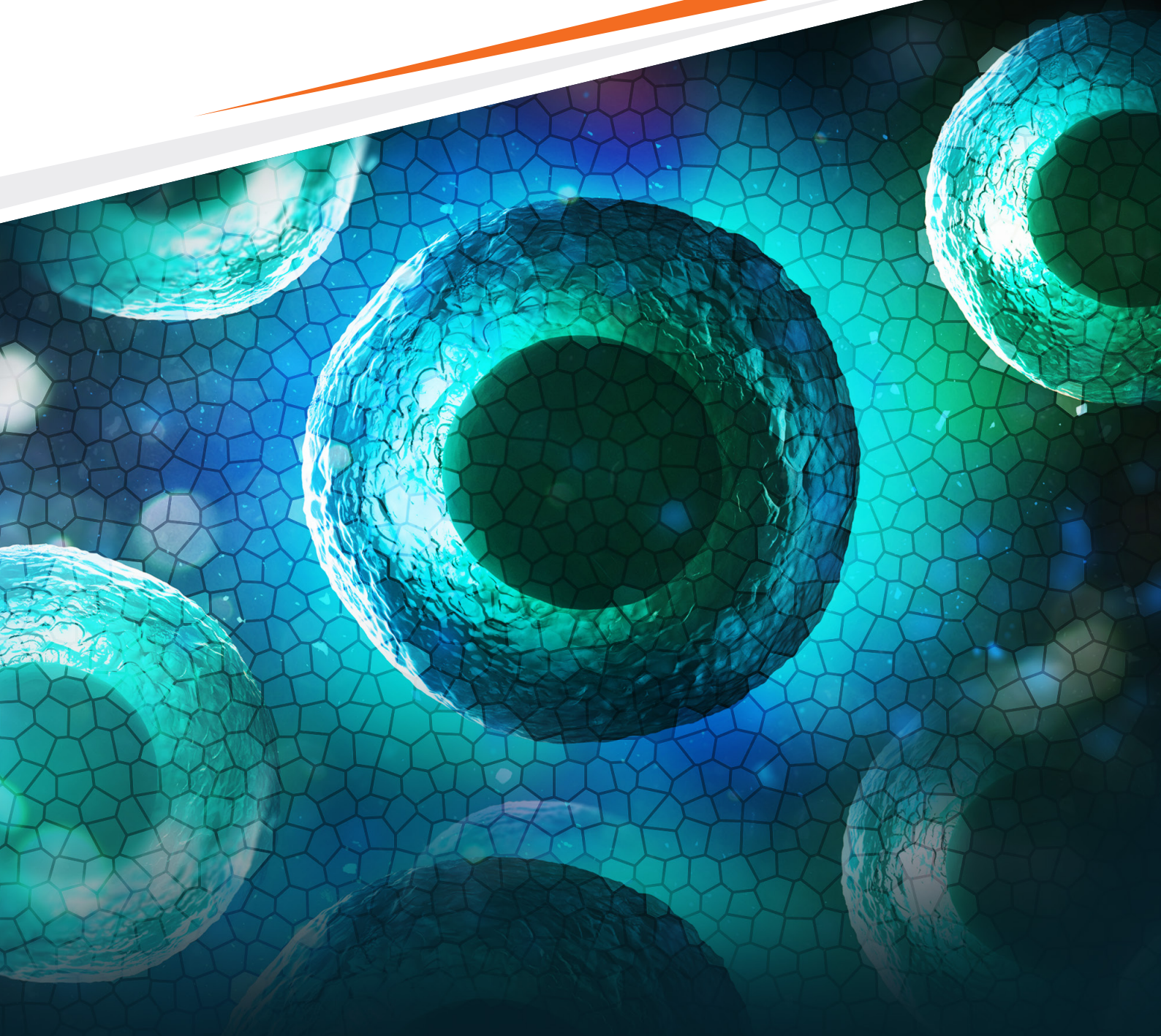


**PULSE**  **SCIENCE**



**BE INSPIRED TO GO BEYOND**  
**ONE STOP SOLUTION**  
**TODAY AND TOMORROW**

# OUR SOLUTIONS

We provide one stop service which includes Site survey, Cleanroom design construction, Equipment selection and Preventive maintenance.



## CLEANROOM DESIGN & CONSTRUCTION

## SERVICE & MAINTENANCE



## PRODUCT PROVIDER



## EDUCATION & TRAINING CENTER



## CleanRoom Laboratory

We provide Turnkey Project Services for set up of laboratory room.



**SITE SURVEY  
CLEANROOM DESIGN  
CONSTRUCTION OF LABORATORY**



### The total area is divided into rooms as follows:

#### Main

- Laboratory cleanroom Class 1000 -100000

#### Optional

- Gas storage room for cleanroom
- Air conditioned room for cleanroom
- Cleaning equipment area
- Material storage room
- Stem cell storage room
- Examination room
- Patient room
- Rehabilitation room
- Admin room
- Changing room
- Reception area
- Meeting room
- Management office and Laboratory area
- Staff room and Dining area
- Officer on duty room and Toilet inside
- Toilet

# WORKSTATIONS

## IncuWork *ic*

is an IVF Working chamber, totally closed embryo culture system, which substantially enhances the working environment for IVF procedures- ICSI, IMSI, biopsy.

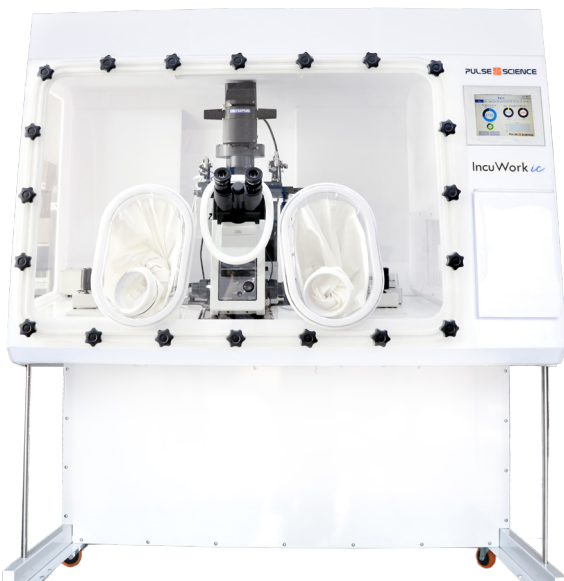
The IncuWork ic is designed for efficiency and comfort allowing embryologists to reduce stress and fatigue.

This product can improve embryo implantation rate, clinical pregnancy rate, egg quality and reduce embryo stress.



*Ergonomic design*

*Stable O2, CO2, temperature and humidity*



### FEATURES

- Ergonomic design
- Prepared for inverted microscope for performing ICSI, IMSI, biopsy
- Stable temperature for the entire chamber and hatch box, ambient +5°C to 45°C
- CO2 and O2 level is controlled with an integrated gas mixing system to your preferred level, range 0-10% for CO2, 2-20% for O2
- Hatch box: Mechanical interlock is preventing both doors from being opened at the same time.
- Integrated with Anti-Vibration plate
- Touch screen to control and display an overview of all functions
- Alarm system and Data logging
- Remote care concept for check up and maintenance

### Remote Care Concept



# WORKSTATIONS

## IncuWork *iv*

is an IVF work chamber in a closed system. It can help the embryologist reduce the problem of uncontrollable factor of temperature and CO<sub>2</sub>/O<sub>2</sub> during oocytes and embryo handling.

This product provides stable and appropriate environment by precise control of temperature and gas composition which improve the success rate of IVF process.

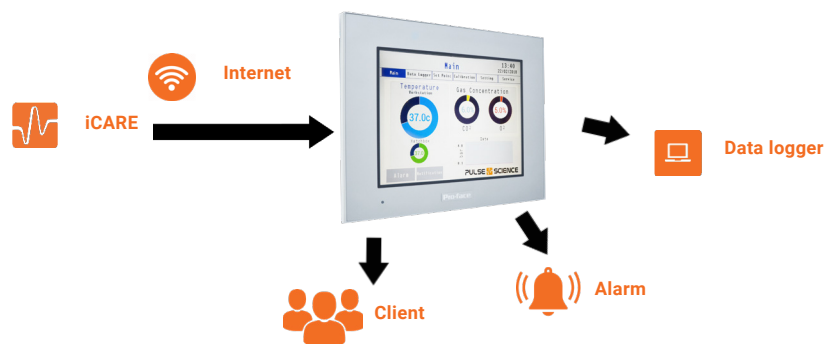


### FEATURES

- Ergonomic design
- Compatible with all types of stereo microscopes
- Stable temperature throughout the chamber, ambient +5°C to 45°C
- Built-in heating system in the entire working area to maintain a stable temperature of the samples
- CO<sub>2</sub> and O<sub>2</sub> is controlled with an integrated gas mixing system to your preferred level, range 0-10% for CO<sub>2</sub>, 2-20% for O<sub>2</sub>
- Easy passing of samples through the side doors and Front Access panel
- Touch screen to control and display an overview of all functions
- Alarm system and Data logging
- Remote care concept for check up and maintenance



### Remote Care Concept



# WORKSTATIONS

## EnviSafe *uv*

designed for optimal user and sample protection.

It is prepared for a stereo microscope for observation under a cabinet. It comes with built-in heated stage under the microscope to provide optimal working condition.



### FEATURES

- Table top is made of stainless steel integrated with 2-sides heating areas to give an optimal working condition
- High resolution touch-screen display
- Mounting assembly for most stereo microscopes integrated with large strengthend heated glass
- Multiple protection design increases security level significantly
- Innovative surrounded air intake grill design
- ECM brushless DC motor with good energy efficiency
- Supply/Exhaust HEPA filter 99.99% efficiency @ 0.3 micron (Class H14)
- 254 nm UV lamp with 6mm anti-ultraviolet tempered glass
- 1,000 Lux fluorescent lamp
- Ergonomic 10 degree angle



LARGE STRENGTHEND HEATED GLASS



TOUCH-SCREEN DISPLAY

# WORKSTATIONS

## EnviSafe cell

is a Biosafety cabinet Class II, design for visually examining in the clean area. Contaminated area surrounded with negative pressure to fully prevent leakage of contaminated air.



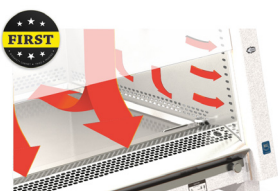
### FEATURES

- Semi-closed Biosafety cabinet Class II
- Table top is made of stainless steel integrated with heating areas to give an optimal working condition
- High resolution touch-screen display
- Multiple protection design increases security level significantly
- Innovative surrounded air intake grill design
- ECM brushless DC motor with good energy efficiency
- Supply/Exhaust HEPA filter 99.99% efficiency @ 0.3 micron (Class H14)
- 254 nm UV lamp with 6mm anti-ultraviolet tempered glass
- 1,000 Lux fluorescent lamp
- Ergonomic 10 degree angle

### STANDARD BSC CLASS 2

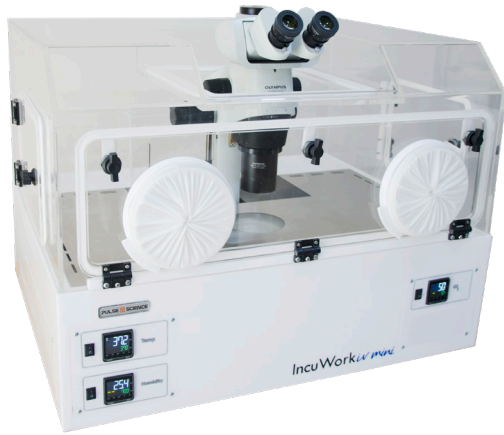


Stem Cell Isolation or Cell Handling is ideally conducted in a clean environment.



Innovative surrounded air intake grille design. All contaminated air in the work area is enclosed inside the cabinet.

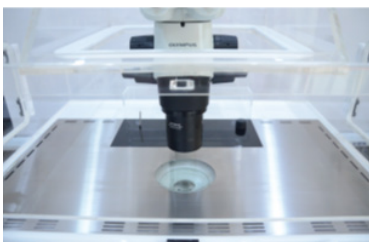
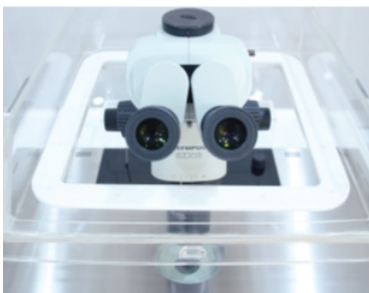
# WORKSTATIONS



## IncuWork *iv mini*

is an IVF work chamber in a closed system. It is an essential part of good laboratory practice when visually examining, manipulating, transferring or assessing oocytes and embryos for in-vitro fertilization (IVF). It can help the embryologist reduce the problem of uncontrollable factor of temperature and CO<sub>2</sub> during oocytes and embryo handling.

Temperature and CO<sub>2</sub> controlled. It also provides a humidified environment with heated water tray to 70% which maintaining optimal condition of the media used thus giving oocytes and embryo the suitable environment for their growth.



### FEATURES

- Ergonomic design
- Compatible with all types of stereo microscopes
- Stable temperature controlled air throughout the chamber and all internal components, ambient to 50°C accuracy 0.5
- CO<sub>2</sub> is controlled with an integrated gas mixing system to your preferred level, range 0-10% accuracy 0.5
- Easy passing of samples through the swing out door left & right and Front Access panel with
- Full Flat working area ensure comfortable and safety handling of sample place in the chamber



# WORKSTATIONS

## VitStation

is the first all in one workstation for cryopreservation and thawing process to ensure optimal continuous working condition. By using this new all in one workstation we can save laboratory space and make everyday life easier for the operator.

The VitStation can increase probability of sample vitrifying success and reduce cells damage due to ice crystallization.



### FEATURES

- Extreme freeze at -210 °C
- Stainless steel table top
- Integrated heated surface with 2 heating areas
- Combining freezing, heating and observation areas
- Mounting assembly for stereo microscopes
- Individual control for each heated areas
- Integrated vitrification chamber at freezing area
- One touch button for pressure releasing



### SPECIFICATIONS

Over all	120 cm (W) x 87 cm (H) x 65 cm (D)
Working area	120 cm (W) x 80 cm (H) x 50 cm (D)
Each of heating area dimension	20 cm (W) x 30 cm (H)
Vacuum chamber	36.5 cm (W) x 12.6 cm (H) x 17.5 cm (D)
Temperature controller	PID
Power	220 VAC (EMI Filter socket)
Heat plate	Silicone heater

# WORKSTATIONS

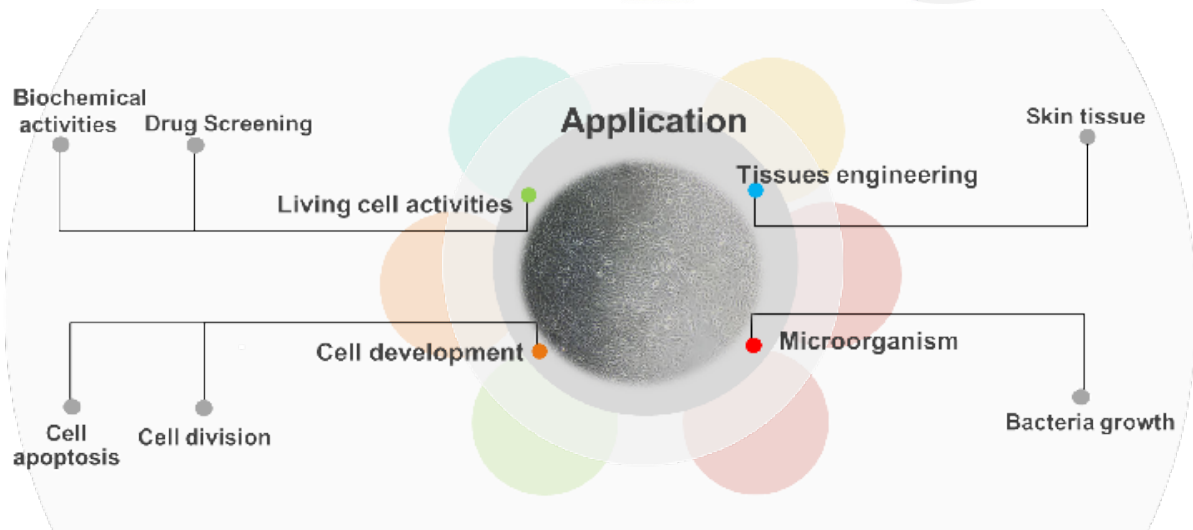
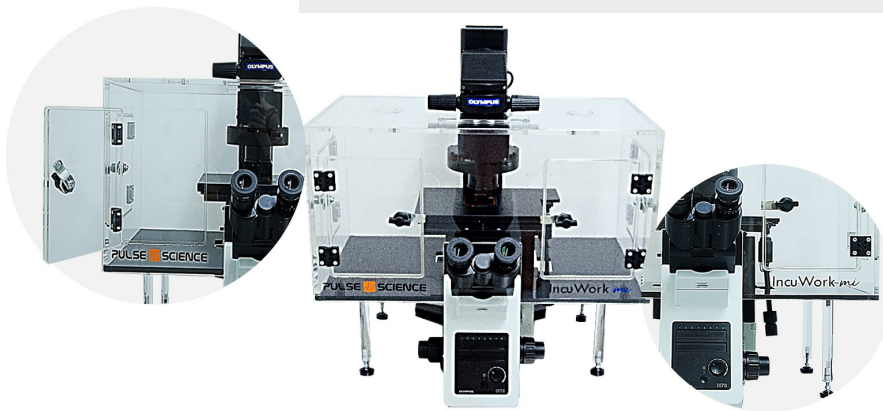
## IncuWork mi



is a microscope stage incubator, providing optimal stability of the environmental parameters for living cells during microscope examining. It's the technology for maintaining optimal environment for living cells on microscope stage and keeping cell alive and healthy during long term time-lapse imaging.

### FEATURES

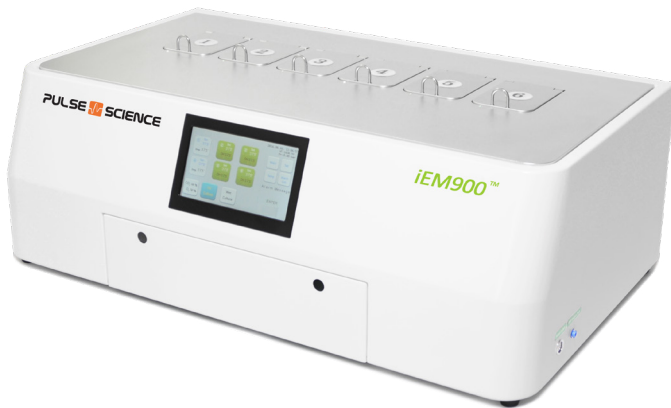
- Prepared for any inverted microscope
- Ergonomic design
- Temperature Control Unit generates warm air to provide the temperature inside the chamber.
- Double warm air input ensures temperature uniformity inside the chamber
- The heater is placed outside ensuring minimum vibration to the microscope
- Stable and precise temperature throughout the chamber, range from 5 above ambient to 45
- Temperature accuracy  $\pm 0.1^{\circ}\text{C}$
- The focusing knob and stage control are outside allow easy to handle microscope.



# INCUBATORS

## iEM900™

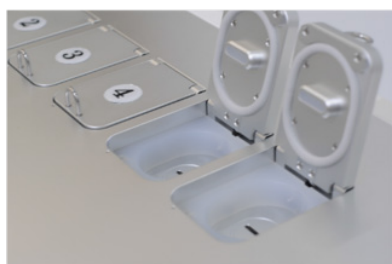
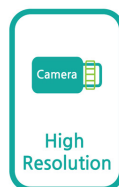
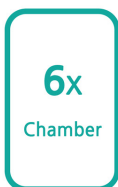
The iEM900 is a time Lapse monitoring system which reduce disturbance problem and maintain the optimal condition for embryo culture. It is easy to observe and select embryo with real time images and ensure the embryo stress from observation is reduced.



### Time-Lapses Embryo Monitoring System

#### FEATURES

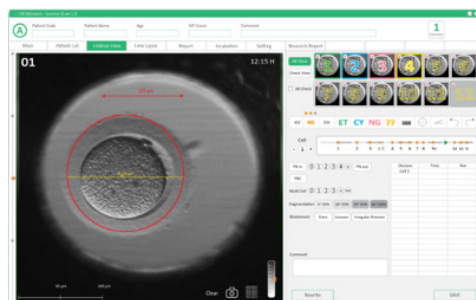
- Six chambers with individual on/off gas control
- Each chamber is equipped with heating element on top as well as bottom of the chamber
- High resolution image
- Integrated data logger: easy to back up the data by using USB port
- Touch panel to control and display all of function
- A VOC Filter administration program
- HEPA filter: remove 99.995% of all airborne particles down to 0.3 µm
- iEM Viewer 24"/ 4K monitor software for viewing and analysis of embryos.



6X Chamber



i-well dish



iEM viewer

# INCUBATORS

## Synvivo™

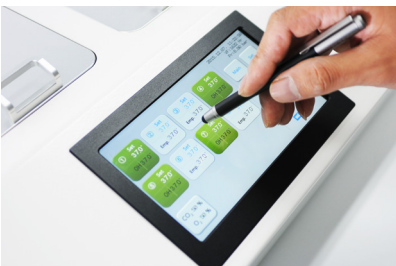
Synvivo ensures the optimal culture environment for the best choice among right embryos.

### FEATURES

- Synvivo is like a little apartment complex composed of eight individual independently working mini- incubators
- Its eight chambers have individual on/off control for their gas supply
- Each & individual chamber is equipped with heating elements
- 7" touch screen offers exact display
- A VOC Filter administration program
- Compatible with most of the culture dishes
- Easy administration of log data is possible through a USB port
- Quality certified components with proven performance allow Synvivo to produce optimal culture environment



Benchtop Multi-chamber Incubator



Every dish is seated securely and comfortably

- 16 x Nunc 4well dishes
- 16 x Falcon / Nunc 60mm dishes
- 16 x 45mm multi well dishes
- 48 x Nunc 35mm dishes

# INCUBATORS

## CO2 INCUBATOR ICOMED



is a standard CO2 incubator for cell cultures, bacteria cultures or tissue cultures.

4 model sizes (with a chamber volume of 56 to 241 liters)

- ICO50med
- ICO105med
- ICO150med
- ICO240med

### CO2 Incubator ICOMED

is classified as a class IIa medical device. It is used to create and maintain constant environmental conditions for the application area of in vitro fertilization (IVF), especially in the incubation of oocytes, spermatozoa and zygotes, in containers intended for IVF application, as well as gene expression, biosynthesis of RNA and proteins.

### FEATURES

- The ICO50med IVF and ICO105med IVF has a volume of 56 and 107 liters.
- ICO50med IVF consists of 6 individual chambers and ICO105med IVF consist of 8 individual chambers
- Chambers can be opened separately and guarantee minimal air exchange to ensure quick recovery times for temperature, CO2, O2, and humidity.
- Easy, low-vibration and safe opening when individual chambers are pulled out to the front and have a pull-out lock
- TwinDISPLAY is adaptive multifunctional digital PID-microprocessor controller with 2 high-definition TFT-color displays
- The temperature, CO2, O2 and humidity can be controlled with absolute precision.
- Active humidification and dehumidification can help reduce vaporization in the chamber and no condensation.
- Battery-buffered ControlCOCKPIT help to ensure that the operating display, protocol software, CO2 and O2 control are fully functional even during a power failure.
- Visual and acoustic alarm for temperature, CO2, O2, humidity
- Sterilization program at 180 °C for 60 minutes.
- AtmoCONTROL software on USB for programming and documenting processes

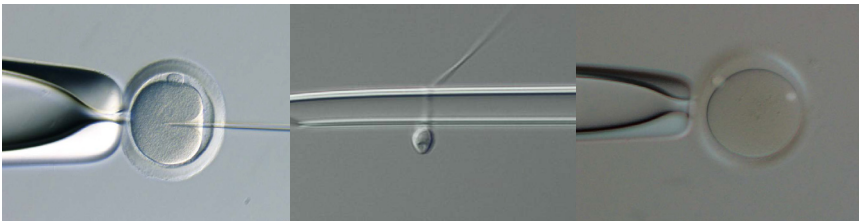


# SOLUTION FOR ICSI



IX73 Semi-motorized system

## ICSI System for Accurate and Speedy Operation



## THERMO PLATE

### Tokai hit

- Ensures more accurate and more reliable thermal control of the specimens during the observation under a microscope

## MICROSCOPE

### Olympus

#### IX73 Inverted Microscope

- Speedy automated microscope operation support ICSI workflow with one touch switching of objective magnification and condenser position
- Spindle observation is available as standard in Semi-motorized system IMSI units are also available as an option

## MICROMANIPULATORS

### Narishige

#### ON4

- Designed to work specifically with Olympus microscope
- Modern standards in easy-to-operate micromanipulators vary widely according to differences of medical research

### Takanome™

- Fast and precise pipette setting
- Innovative angle adjustment
- Low risk of broken or out of view
- 3 simple installation step
- Improved robustness
- Renowned smooth hydraulic operation

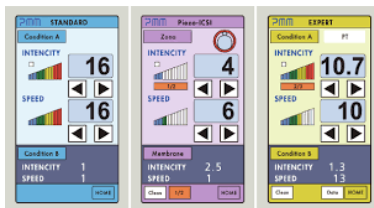
# MICROMANIPULATOR

## PEIZO-PMM6D

is a micromanipulator, designed to be gentle for both oocyte and operator. Its movement is referred to as a forwarding micro impact force, providing greater control and minimize any damage to the oocyte which enhances chances of success in IVF procedures.

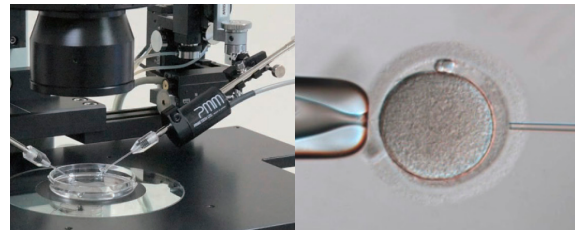


### COLOR TOUCH-SCREEN DISPLAY



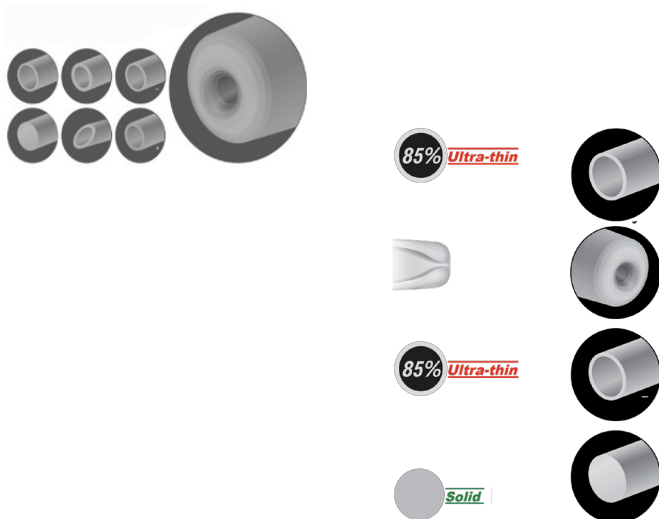
### FEATURES

- Smooth insertion of micropipette into the cell membrane
- Precise movement of micromanipulation within range of travel.
- Color-touch screen display the various mode choices and setting
- 3 Modes for microinjection: standard, Piezo-ICSI and Expert
- Easy setting of the operating speed and intensity
- 8 memory program positions
- Two conditions can be selected by simply touching the display
- Compact design and light weight.



## PIEZO-MICROPIPETTES

is flat micropipettes which are used for Piezo-ICSI, biopsy and assisted hatching, this morphology helps to reduce the plasma membrane damage.

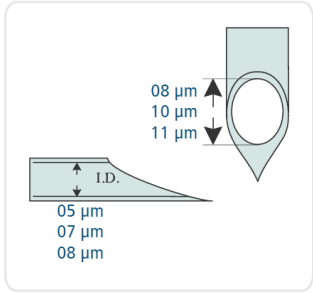


Type	Outside diameter	Inside diameter	Bending Angle
For injection PINU06-20FT	6 µm	51µm	20°
For holding PH10015-30	100 µm	100 µm	20°
For biopsy BPU35(30)-20F	35 µm	15 µm	20°
For assisted hatching PAHN03-20F	3 µm	-	20°

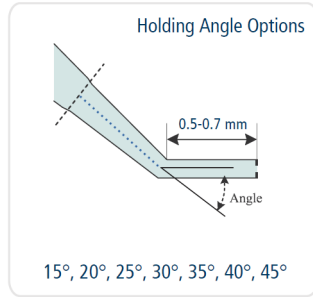
# CONSUMABLES

## MONASH BIOMED MICROPIPETTE

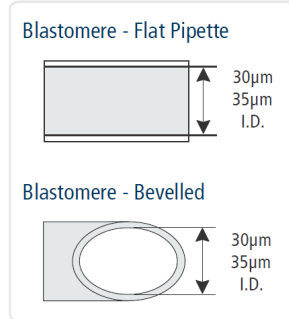
is a micropipette for IVF workflow- ICSI, biopsy and assisted hatching.



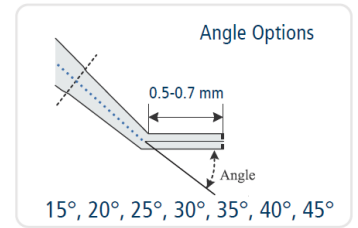
Injection micropipette



Holding micropipette



Biopsy micropipette



Assisted hatching micropipette

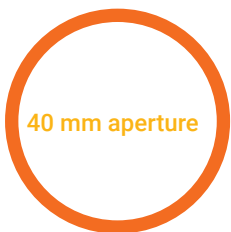
Type	Inside diameter	Bevel level	Bending Angle
For injection MBIS(s)-0511-30	5 µm	11 µm	30°
For holding MBH-25120-30	25 µm (O.D., 120 µm)	-	30°
For biopsy MBB-F-M-30	35 µm	-	30°
For assisted hatching MBA-S-30	10 µm	-	30°

## WILLCO-DISH®

is a glass bottom dish designed with a flat coverslip for IMSI, spindle observation, cell culture and tissue culture ensure better imaging quality.

The coverslip is flush with the warming-stage which provide optimal and equally divided heating of the cell on the bottom of the dish.

50 mm dish



40 mm aperture



### FEATURES

- A much larger effective range when using an objective lens with a short working distance.
- Low rim/side wall dish was originally designed, for micromanipulation or micro-injection.
- Higher effective N.A. facilitates higher resolutions in image analysis.
- No birefringence effect due to the glass bottom is thin (0.17)







Experience The ART Work With Ease  
Andrology & Cryobiology

# CONSUMABLES

**CANFRAG** is the kit design to detect DNA fragmentation in human sperm.

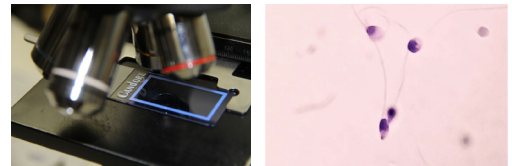


## CANMORPH

Pre-stained Sperm Morphology Slides for Human Sperms.



**CANROS** Kit to determine Reactive Oxygen Species in human semen.



**CANSEP** Sperm Sorting using Magnetic Separation method.



## CANSURE

is a MEA & HSSA tested cleaning solution used in laboratories for cleaning of Incubators, Laminar flow hoods and Floor.



## CANFREEZE & CANTHAW

Vitrification media for PN stage to Blastocyst Freezing & Thawing Media.



# SEMEN ANALYZER

## LensHooke™

is a fully automatic semen quality analyzer. It has a compact and ergonomic design, providing easier and faster results for human semen analysis.

### Semen quality analyzer

World's first fully automatic device



#### FEATURES

- 4 Key data of diagnosis, concentration, motility, morphology and pH
- Auto focus and full HD
- Real-time image can be displayed by connecting with an external monitor.
- Touch screen to display analytical result and function setting
- CASA report: total semen evaluation are performed
- LAN Connection function can allow other computers to access the analyzer
- Barcode Scanner function can easily input the patient ID into analyzer (optional)
- The quality control can be checked by using the LensHooke™ X QC Beads solutions (optional)



Auto focus & Full HD



CASA report



Barcode scan



LAN connection



Quality control



pH value



Concentration



Morphology



Motility  
(NP, PR, Total Motility)

#### Consumables related products



Semen Test Cassette



Liquefaction Test Cup

Only 3 steps and 2~5 minutes to get all of the results



# LAB MONITORING & ALARM SYSTEM



» **Experts In Monitoring And Alarm Systems**



» **Text Message Alarms to Mobile Phone**



» **Powerful Wireless Signals**

## Monitoring System Britannia

PROVEN SOLUTIONS FOR ALL IVF EQUIPMENT MONITORING

» **Completely Failsafe**

### MONITORING STAND-ALONE UNIT

A stand-alone sensing unit with easy user recalibration function, remote flashing xenon lamp and sounder includes local display to show current reading of gas concentration.



Carbsafe CO2 Monitor



Oxysafe O2 Depletion Monitors

### Transmitters

Single and multi-channel transmitters capable of measuring and transmitting Temperature

- Humidity
- Voltage/Current
- Visible light/UV
- Event
- Differential pressure
- Gas ; CO2/O2



### DARCA H1 Software

Suite enables users to configure, download and analyses the data transmitted and collected

### Sensors



Temperature, Humidity, CO2, Differential pressure and many other environmental sensors, ideally suited to the most demanding of applications



### Main Panel Base Station



### ALARM TEXT MESSAGE

MOXA Communicate with the system over the LAN from multiple PC's

### Labsafe Key Points



#### 250 Channels

Ability to monitor up to 250 channels, input or sensor



#### Transmitted data is encrypted



#### 2 km Transmissions

System can transmit up to 2 km over open ground



#### SMS Alarm

Can text up to 10 phone numbers



#### Battery backup

# ■ QUALITY CONTROL

## CO<sub>2</sub> / O<sub>2</sub> PORTABLE ANALYSER (G100)

### FEATURES

- CO<sub>2</sub> 0 - 20% Options for:
  - O<sub>2</sub> 0-100%
  - Dual temperature probes 0 to 50 °C
  - Data storage and download
  - Humidity sensor 0-100%



### BENEFITS

- Accurate CO<sub>2</sub> readings
- Quick verification of CO<sub>2</sub> incubator levels
- Time saving with dual temperature probes
- Large data storage and user friendly software and download
- Easy to read large well-lit display
- Built in gas moisture removal

## FLUKE 971 TEMPERATURE HUMIDITY METER

Quickly and conveniently take accurate humidity and temperature readings

### FEATURES

- Backlit dual display of humidity and temperature
- Measures dew point and wet bulb temperatures
- 99 record storage capacity
- Ergonomic design with belt clip and protective holster
- Quick-response capacitance sensor
- Temperature range from -20 to 60 °C (-4 to 140°F)
- Relative humidity from 5% to 95%
- Min/Max/Avg Data hold



## PORTABLE HANDHELD VOC MONITOR

It is a comprehensive handheld VOC (Volatile Organic Compound) monitor that uses a third generation patented PID technology to accurately measure one of the highest levels of ionizable chemicals available on the market.

» **ppbRAE 3000 VOC monitor**  
Models PGM-6228

- Extended range from 1 ppb to 10,000 ppm with highly acute linearity

» **MiniRAE 3000 VOC Monitor**  
Model PGM-7320

- VOC detection range from 0 to 15,000 ppm



### FEATURES

- 3-second response time
- Humidity compensation with built-in humidity and temperature sensors
- Highly connectivity capability through multiple wireless module options
- Reflex PID Technology™
- Real-time wireless data transmission

# FREEZERS & REFRIGERATORS

## ULTRA LOW TEMPERATURE FREEZERS

Excellent freezing function & Enables long-term frozen storage  
Combined with Britannia Monitoring System



### PROVEN SOLUTIONS & COMPLETELY FAILSAFE

- Suitable to monitor low temperature in -80°C Freezers
- Protection from mains power failures

#### FEATURES

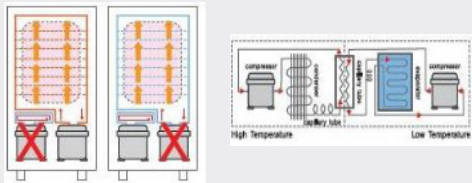
- Dual compressor system, temperature is maintained at least -70°C
- Ultra cold storage at up to -80°C
- Freezer door lock
- Reliable temperature logger
- Door fan: circulating the moisture which can prevent dew condensation
- Vacuum relieving system
- Heater and hot pipe: preventing frost and dew condensation on surface



CCF SERIES

### Conventional Freezing System

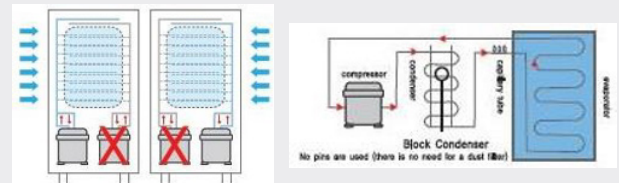
When one of compressor fails, freezer temperature will instantly rise.



### New Freezing System

#### Dual compressor system

Independent refrigeration system sustain freezing temperature at least -70°C in the event of a compressor failure



## LABORATORY REFRIGERATORS

Biomedical refrigerators provide satisfaction with the high efficiency, safety, energy saving, longer service life and ultra-high speed cooling rate.

#### FEATURES

- A highly-efficient motor circulates internal cool air
- Automatic shutting door
- Built-in fluorescent lamp
- Environment-friendly new refrigerant
- Door locking device
- Pair glass door
- Strong shelf
- High-density rigid polyurethane foam
- Temperature range of 0 to 10°C



UDR SERIES

# ACCESSORIES

## BLOCK WARMER Suitable for heating sample in the test tube.

### FEATURES

- Error code display
- Fixed safety circuit
- LED display for easy reading
- Adjustable temperature is up to 150°C
- High temperature stability is up to  $\pm 0.2^{\circ}\text{C}$
- Adjustable timing range of 1min to 99h59min
- 3D digital wheel adjustment of time and temperature
- Automatic calibration with external PT1000 temperature sensor
- Machined aluminum heating unit allows for highly precise control of temperature
- Included PT1000 temperature sensor allows temperature control directly in the sample vessel



## DIGITAL CAMERA ADAPTER FOR MICROSCOPE

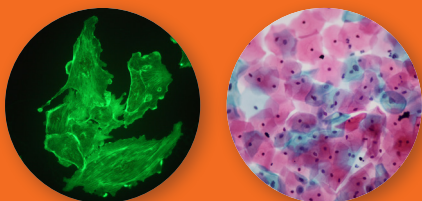
The adapter to mount digital cameras is provided to allow easy, cost-efficient digital imaging.

Whether you need image for biology, pathology, materials analysis or forensics you will find the adapter is easy to use and provides professional results.

- Easy to setup just only connect the adapter with microscope and camera
- Easy to shoot photographs from microscope
- Easy to control camera via PC, notebook or yourself
- Easy to save images into SD card or your computer directly

The adapter will fit any microscope including compound and stereo microscopes i.e., Olympus, Nikon or Carl Zeiss.

### HIGH IMAGE QUALITY AND RICH COLOR



DSLR Camera



Digital Camera



HD VDO Camera



Since our humble beginnings we have gained vast experience and contacts in a huge variety of medical devices. We now have access to and are specialists in:

- Microscope & Optical devices
- IVF & Stem Cell technology
- Life science equipment
- Cleanroom & Furniture
- Laminar flow system
- Biosafety cabinets
- Anti-Vibration system
- Laboratory automation
- Laboratory gas system

**CLEANROOM DESIGN & CONSTRUCTION**

**PRODUCT PROVIDER**

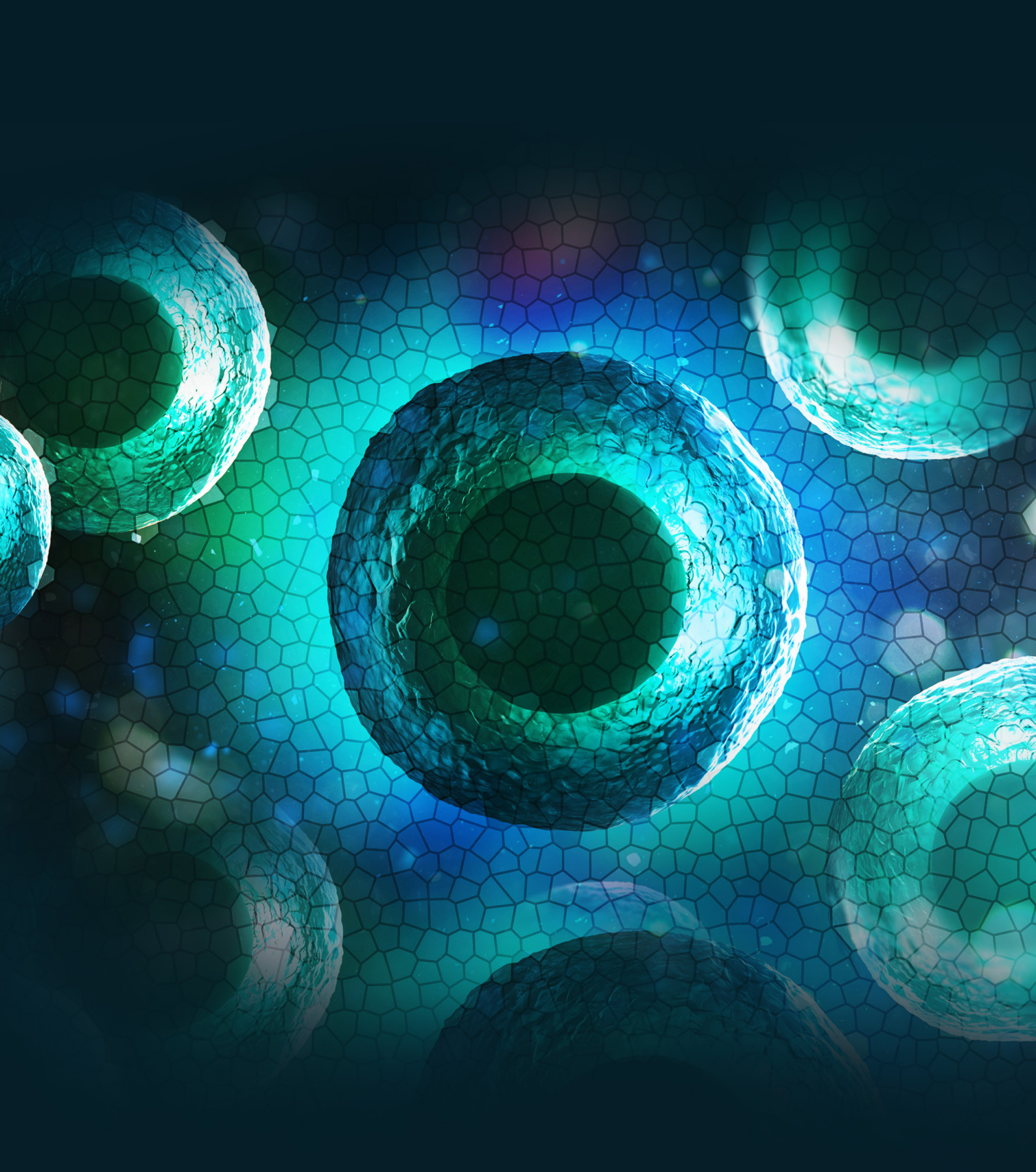
**EDUCATION & TRAINING CENTER**

**SERVICE & MAINTENANCE**

## PARTNERS

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