EMBRYOSCOPE TIME-LAPSE SYSTEMS

Making time-lapse a standard of care.



TIME-LAPSE CULTURE ENABLES BETTER EMBRYO SELECTION

Time-lapse technology reduces observational time restrictions and stress to embryos during culture and assessment. With time-lapse you can enjoy undisturbed culture and continous image acquisition and improve your selection process through a more objective analysis.

Solving the observational dilemma

The desire to observe embryos regularly in order to make accurate assessments, while minimising disturbance to avoid stressing them, has been a longstanding dilemma. Time-lapse technology solves this problem by giving you continuous observation in an undisturbed culture. Once taken, acquired images can be played as a film that can be analysed in the laboratory and remotely. Without time-lapse, embryos must be taken out of the incubator to be assessed, exposing them to unnecessary stress and fluctuations in gas and temperature.



The use of time-lapse significantly improves live birth rates and reduces early pregnancy loss rates

Improved ongoing pregnancy and live birth rates

Ongoing pregnancy and live birth rates are significantly improved with time-lapse vs. traditional culture and evaluation (relative improvement: 28% and 41%, respectively)¹. Strengthened evidence of increased live births with the use of time-lapse systems on an intention to treat basis supports this (n=1945, OR: 1.56, CI: 1.30-1.88, p<0.001). ²

Reduced pregnancy loss

Importantly, the early pregnancy loss rate is significantly reduced with the application of time-lapse technology (relative reduction: 28%).¹

Shorter time to pregnancy

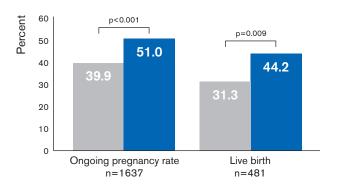
Improving the clinical pregnancy rate while decreasing pregnancy losses effectively shortens the overall time to pregnancy.

Making time-lapse a standard of care

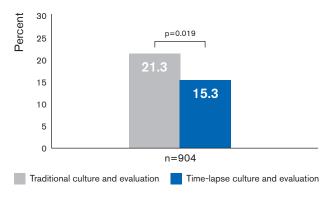
With the introduction of time-lapse technology, the field of assisted reproduction took a leap forward. Time-lapse monitoring systems present a significant potential in improving IVF treatment on all levels.

Simultaneously, time-lapse technology introduces new opportunities in the clinic for improving workflow, quality control and communication between embryologists, clinicians and patients. Most importantly, time-lapse culture and evaluation has been proven to increase clinical outcome and reduce pregnancy loss.³⁻¹³

Improved ongoing pregnancy rate and live birth rate¹



Early pregnancy loss reduced¹





"As the first clinic in the world to introduce time-lapse technology for all patients in 2010, we have seen an improvement in implantation rates while reducing multiple

pregnancy rates by way of more single embryo transfer. We are confidently using EmbryoScope+ routinely for our patients. We have the same great results, with the added benefit of higher patient and embryo capacity as well as space savings in the lab."

Medical Director John Kirk, Maigaard Fertility Clinic, Denmark

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UNDISTURBED CULTURE AND TIME-LAPSE EVALUATION WORKING TOGETHER

EmbryoScope+ time-lapse systems offer improved clinical outcomes through undisturbed stable incubation and time-lapse monitoring. Vitrolife's time-lapse offering is the world's most used since 2009.

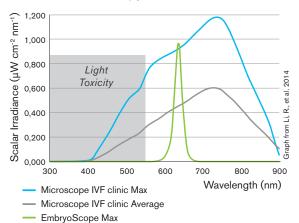
Undisturbed stable incubation

Our time-lapse systems based on the EmbryoScope+technology share the same state-of-the-art technology that enables a stable culture environment for embryos. Temperature is tightly regulated by direct heat contact and air is continuously purified through a HEPA/VOC filter. An integrated gas mixer allows the implementation of reduced oxygen conditions easily and economically. Small incubation chambers allow rapid recovery of culture conditions after door opening. EmbryoScope 8 has space for 8 patients with up to 16 embryos in each dish, EmbryoScope+has space for 15 patients with up to 16 embryos in each dish and EmbryoScope Flex has space for 24 patients with up to 6 embryos in each dish.

Constant time-lapse monitoring

EmbryoScope+ time-lapse systems acquire images of all embryos in multiple focal planes. All time-lapse systems use high-quality Hoffman modulation contrast optics and acquire images of each individual embryo separately. This results in supreme image quality which allows observation of key morphological features. The image acquisition has been thoroughly validated to ensure safety in terms of both light wavelength and total energy exposure. Image data handling has been carefully considered to minimise data storage requirements while maintaining optimum image quality. This ensures seamless video playback.

Lower energy light exposure than traditional microscopy



Ensure the best possible embryo culture environment

The heart of the system is the incubator.
EmbryoScope 8, EmbryoScope+ and
EmbryoScope Flex provide a stable incubation
environment while high quality images of embryo
development are acquired. Light exposure in
our time-lapse systems is outside of damaging
wavelenghts and with much lower total light
energy exposure than traditional microscopy.¹⁴

TIME-LAPSE ALL THE WAY

Make time-lapse standard of care with our new range of time-lapse incubators all based on EmbryoScope+ technology. No matter the size or patient profile of your clinic, Vitrolife has the system that suits your IVF laboratory, which may ultimately help you improve clinical outcome.

Expanding your capacity with an extended EmbryoScope+ family

By popular demand we have expanded the product family to meet the needs of small, intermediate and large clinics as well as different patient profiles.

By offering a range of products with the same sleek design, we have a family of products that work together with the same ES server solution, allowing a more streamlined workflow and consistency of results. These products, together with our expanded software tools, which we continue to develop, prepare your laboratory for all the future developments of time-lapse and culture products from Vitrolife, including advanced tools making use of Artificial Intelligence.

Efficient meets excellent

The unique design of our single chamber EmbryoScope+ family of time-lapse incubators offers numerous advantages. In addition, our built in HEPA/ VOC and for some versions UV air supply purification mean excellent control of air quality.



High capacity for space

Treat up to 8, 15 or 24 patients at once in the same small benchtop footprint of 55×60 cm.



Optimised clinic resources

Flexible evaluation time allows clinic to streamline embryo selection workflow.



Minimal culture disturbance

Virtually unaltered culture conditions when adding or removing patients.



Integrated gas mixer

Together with efficient gas recycling, means very low gas consumption and time savings changing cylinders.



Easy patient addition workflow

Barcode entry label for traceability and easy overview of patient location without use of sticky notes or other inefficient systems.



Easy and efficient gas and temperature validation

Single validation point and easy overview and recording of running conditions.

MEETING ALL YOUR NEEDS

Based on the same design as EmbryoScope+, all of our time-lapse incubators offer the same state-of-the-art technology that enables a stable culture environment for embryos and supreme image quality for time-lapse-based embryo evaluation.

EmbryoScope 8

EmbryoScope 8 is designed to meet the needs of smaller clinics who want to enjoy the same great benefits of the EmbryoScope+ family of time-lapse systems. EmbryoScope 8 can simultaneously acquire time-lapse videos from 8 patients with up to 16 embryos each, making it ideal for smaller clinics who wish to offer time-lapse to more of their patients.

As for EmbryoScope+ and EmbryoScope Flex, patients are automatically registered in EmbryoScope 8 via barcode labelling and an overview of all patients by incubation day is immediately available. Data generated from EmbryoScope 8 can be analysed in the EmbryoViewer software, using time-lapse analysis of embryo development to improve evaluation.

EmbryoScope+

EmbryoScope+ is designed to meet the needs of clinics wishing to implement time-lapse as a standard of care to more of their patients. EmbryoScope+ has more than double the patient capacity, compared to other bench-top time-lapse systems. The EmbryoScope+ can simultaneously acquire time-lapse videos from up to 15 patient dishes with up to 16 embryos each.

With the small footprint you will make efficient use of space, a valued asset in all labs and especially where space is limited. The large capacity in combination with a small footprint and efficient workflow provides optimised usage of clinic resources.



EmbryoScope Flex

EmbryoScope Flex offers increased flexibility with the possibility of simultaneously acquiring time-lapse videos from up to 24 patients with up to 6 embryos each. This makes it ideal for clinics wishing to utilise time-lapse in mild stimulation cycles and for natural low responder patients. For patients with fewer embryos, the excellent incubation conditions of EmbryoScope Flex offer the best possible chance of having a viable embryo for transfer. For patients with more than 6 embryos, EmbryoViewer software gives you an easy overview of patients' embryos in multiple dishes.



"At Kato Ladies Clinics, we perform more than 25,000 mild ovarian stimulation retrievals per year. The EmbryoScope Flex time-lapse systems are ideal for us, as

we strive to utilise time-lapse in more of our mild stimulation cycles and continuously improve pregnancy and live birth rates."

Dr. Keiichi Kato, General Director, Kato Ladies Clinics, Tokyo, Japan

All about the culture dishes

EmbryoSlide+ culture dish for use in EmbryoScope 8 or EmbryoScope+

- 16 embryos/dish
- 2 reservoirs of 8 culture wells under common media droplet
- 4 rinsing wells Media usage:
- Culture area: 2 x 180 μl
- Rinsing wells: 25-30 μl
- Oil overlay: 1.6 mL

EmbryoSlide Flex culture dish

- 6 culture wells under common media droplet
- 2 rinsing wells
- Media usage:
 Culture area: 140 μl
- Rinsing wells: 35 μl
- Oil overlay: 1200 μl

pH validation dish

- Silicone lid
- 3.5mL medium
- Intended for pH value measurements
- MEA tested
- For single use only









POWERFUL EVALUATION AND SELECTION SOFTWARE

With time-lapse technology, images are taken continuously as an embryo develops. The resulting film sequence can reveal critical events that are often missed in the "snap-shot" glimpses of conventional microscopy, allowing you to make more informed decisions. EmbryoViewer software allows you to perform advanced embryo analysis to improve selection of embryos most suited for transfer and cryopreservation.

Get the relevant information to make the best choice

Traditional evaluation of embryos limits the amount of information about embryo development. Using time-lapse analysis, you can detect previously

unseen embryo development patterns and events which have been correlated to clinical outcome. With EmbryoViewer software and Guided Annotation, you can analyse high quality videos of embryo development and easily register the information you need about each embryo to make evaluation efficient.



See what you've been missing

With EmbryoViewer software, you can achieve improved selection, or de-selection, of embryos by a combination of discovering both morphological and morphokinetic parameters. Important parameters such as the dynamic morphology, critical cleavage patterns and morphokinetics can only be observed with time-lapse technology.

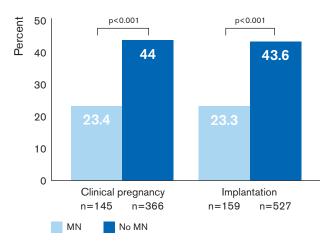
Traditional embryo assessment has been reported to miss more than 70% of embryo multinucleation while more than 20% of embryos have been reported to go through an abnormal cleavage pattern. Cleavage patterns such reverse cleavage and direct cleavage, that have been shown to negatively affect implantation potential, can only be correctly determined by the use of time-lapse.¹⁵⁻¹⁸

Ensure consistency with annotations

Registering embryo traits with the specific time of occurrence enables the transition from analogue assessment to assessment by digital information. For embryo evaluation, digital information has the advantage of being more precise and less risk of subjectivity. This sets the basis for consistent evaluation.

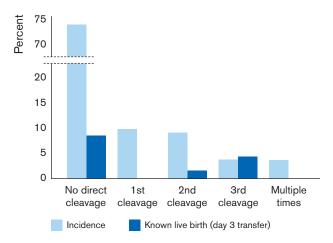
- Standard evaluation misses up to 72.4% of multinucleated embryos¹⁵⁻¹⁶
- Up to 26% of embryos go through an abnormal cleavage pattern¹⁷⁻¹⁸

Effect of multinucleation 15

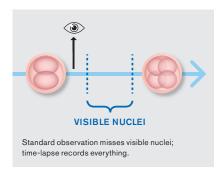


Transferred embryos retrospectively checked for multinucleation (MN) at 2-cell stage by time-lapse images. Only 27.6% of multinucleated embryos were identified within traditional time limits for embryo assessment (n=159). Multinucleation significantly reduced clinical pregnancy rate and implantation rate.

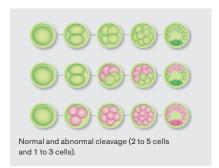
Incidence and live birth outcome per timing of direct cleavage in embryos¹⁸



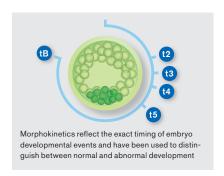
Time-lapse expands your evaluation capabilities



Observe changes in morphology in near real-time



Identify abnormal cleavage patterns as they occur



Monitor morphokinetics

Advanced software

With EmbryoViewer software, you can review, annotate and compare development of selected embryos from data acquired by the EmbryoScope 8, EmbryoScope+ and EmbryoScope Flex. The same EmbryoViewer software can be used for all types of incubators. The incubators' running conditions are automatically stored with the patient data and can be observed on the EmbryoViewer software for quality assurance.

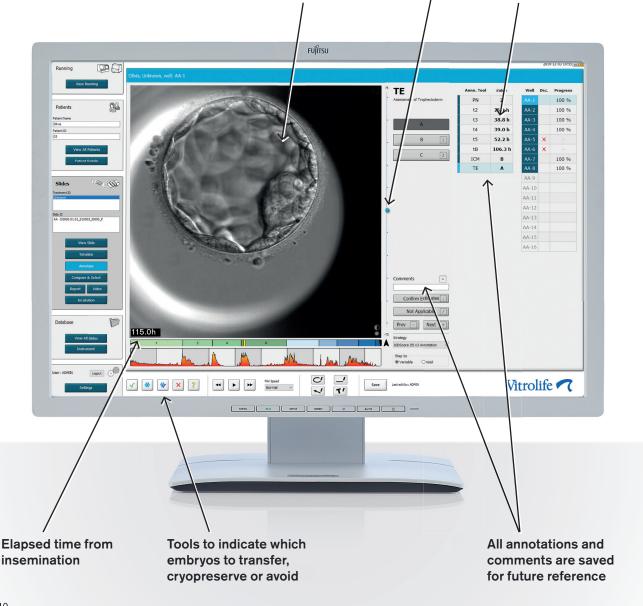
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Intuitive annotation tools

With EmbryoViewer software, you can annotate cell division events, providing an easy overview of observations in developmental stages.

Selection of different focal planes to observe details of interest

High quality Hoffman modulation contrast images which allows observation of key morphological events Division timings are automatically estimated through artificial intelligence algorithm analysis



Improved basis for embryo evaluation

Use Guided Annotation in the EmbryoViewer software to efficiently get the parameters you need for embryo evaluation. Designed to provide a simplified annotation workflow.

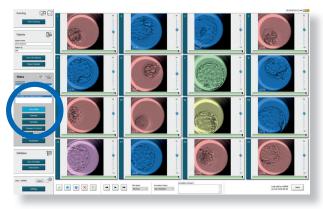
KIDScore for efficient evaluation support

KIDScore™ decision support tools assigns an objective score to each embryo. The scores reflect implantation potential and provide consistent and effective support for embryo evaluation. With Guided Annotation and KIDScore decision support tools you can customise your embryo evaluation to fit the workflow you like with the level of automatisation you prefer.

The future is Al

Without the use of time-lapse, embryo evaluation can be highly subjective. Artificial intelligence based assessment methods can make processes in IVF more precise, consistent and efficient in the future by utilising deep learning methods to enable fully automised grading of embryos from time-lapse images.

Use 'View slide' to see all embryos from one dish at the same time



The 'Compare and select' feature lets you apply a predefined model to rank embryos



Improved workflow with ES server and ES server+

When introducing time-lapse to your IVF laboratory, you are guaranteed a digital transformation in the workflow. With the ES server and ES server+, you can access the time-lapse data from all connected time-lapse incubators.

Moreover, it is possible to view the data from multiple EmbryoViewer workstations. These can be placed in the IVF laboratory or in your office, and you can even access the data stored on the server from another clinic or another remote location using a secure connection. This enables you and your colleagues to view, annotate and select embryos with geographical flexibility.

Electronic Medical Record integration

EmbryoScope 8, EmbryoScope+ and EmbryoScope Flex can be integrated with all compatible EMR systems.

ES server connects all equipment and software in the clinic as well as on remote locations



counseling app

EmbryoViewer

software

ADD INTELLIGENCE WITH GUIDED ANNOTATION

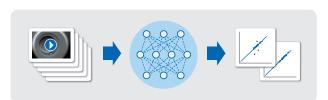
Guided Annotation is an added, optional tool in the EmbryoViewer software designed to provide a simplified annotation workflow. Based on artificial intelligence, Guided Annotation provides a perfect balance of control, accuracy and efficiency – ensuring fast, precise and consistent analysis of embryo development based on your needs for information before embryo selection.

Ensure consistent evaluation of embryos with Guided Annotation

With the extensive amount of image information acquired by the EmbryoScope time-lapse system, every stage of development of each embryo can be observed. Guided Annotation ensures that you collect exactly the amount and type of embryo development information that is necessary for you to evaluate which embryos are most suitable for transfer and/or cryopreservation.

By implementing intelligent software tools and artificial intelligence, Guided Annotation makes embryo annotation fast, efficient and precise and allows you to have complete control of the level of automatisation. A user-defined confidence estimate allows you to automate annotations that have a high confidence level and prioritise validation of annotations with low confidence.

New artificial intelligence and deep learning technologies improve your annotation workflow



Eased workflow, efficiency and consistency



Simplicity

Based on the annotation strategy, Guided Annotation automatically prompts you to annotate the selected variables. A continuous overview of the process is provided.



Efficiency

An efficient workflow is easily achieved by utilising customised annotation strategies in combination with the intuitive and ergonomics friendly keyboard shortcuts.



Consistency

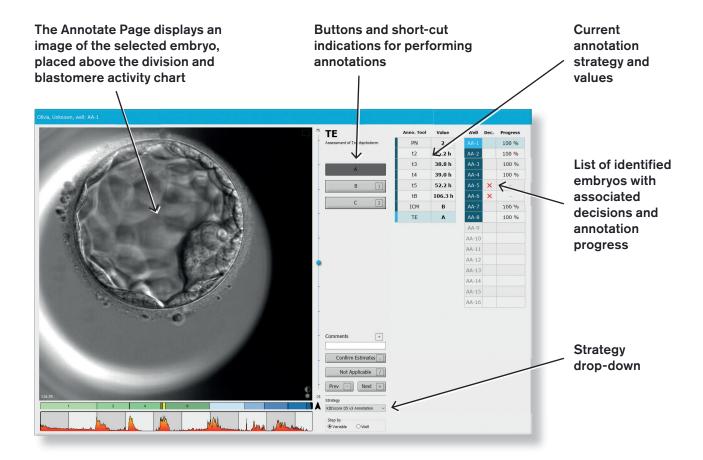
Define an annotation strategy, or determine which predefined annotation strategy to use, and collect consistent and valuable information by all staff.

Guided Annotation in synergy with KIDScore optimally supports your consistent embryo evaluation process

Collect the information you require

At the core of the tool lies a user-defined annotation strategy. It specifies which variables you need for evaluation and in which order to collect them. The Guided Annotation tool guides you completely through this strategy:

- 1. Morphokinetic and certain morphology variables included in the strategy are automatically estimated through artificial intelligence and a deep learning algorithm.
- **2.** For other morphology information, the tool estimates the best time to evaluate for a faster process.
- You control the level of automatisation by defining your required confidence level and complete the step by finally confirming the completed strategy or adjusting when needed.



Well	Dec.	Progress
A-1		100 %
A-2		100 %
A-3	×	-
A-4		28 %
A-5		14 %
A-6		14 %
A-7		14 %
A-8		14 %

Continuous overview of annotation progress

		Well	Dec.	Current	NOTZPN	12	10	14	15	100	ю	m		Last	Morph. grade	Last	Saved	Current Model
View 6	tunning	AA-1	×		Δ											(3)		KBScovetS v3
		AA-2		9.7	•	23.7	34.1	34.1	45.9	87.0	8	Α		8				Created 2010-11-01 by Vitrolife
ients	99	AA-3		9.6	•	21.3	30.8	30.8	42.8	89.9	В	A		В		(3)		Created 2009-11-91 by YEDDINE
Name	-	AA-4	×		Δ											(3)		Saved Model
anson D		AA-5		9	•	23.7	34.3	34.5	46.6	97.8	Α	A		В				Save Score to speed model
		AA-6	×		Δ											19		No saved model
View All	-	AA-7		8.6	•	25.6	35.7	37.2	47.4	100.7	Α	A		8		9		
		AA-8		7.2	•	23.9	33.4	33.4	45.6	98.1	В	В		В		0		Transfer Info
Patient	Details	AA-9	×		0											0		Save Info
		AA:10	×		Δ											9		3009-05-03 (B*
15	10 W	AA-11		7.4	•	25.3	34.8	35.2	46.8	95.4	В	8		8		9		
10		AA-12		6.9	•	22.8	32.8	33.2	45.8	94.6	С	A		В		9		☐ New All Patient Stribyyce
		AA-13		9.7	•	23.5	33.6	33.7	45.2	75.3	В	A		8				
		AA-14		9.4	•	23.1	33.0	33.4	43.1	95.2	8	A		В				
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Apply an evaluation model and view scoring side by side. Comments and custom annotations are also visible to aid in final decisions

KIDSCORE™ DECISION SUPPORT TOOL

KIDScore assigns an objective score to each embryo. The scores reflect implantation potential and provide consistent and effective support for embryo selection.

KIDScore for transfer on Day 3 or Day 5

Benefits of

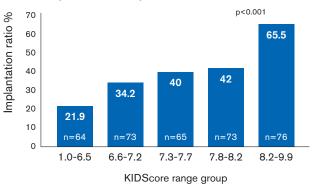
The KIDScore decision support tool is developed by analysing the world's largest database of embryo development with known clinical outcome. The models are developed by analysing how embryo morphokinetics, cleavage patterns and morphology correlates with implantation outcome after transfer.

KIDScore Improves the decision-making process Enhances consistency Helps you obtain better results

Enjoy immediate benefits of time-lapse-based embryo analysis

- Improved consistency of evaluation and lower interobserver variability¹⁹
- Uses 'easy-to-annotate' variables
- Based on Known Implantation Data (KID) from the day of transfer
- A powerful tool when you have more embryos available than planned for transfer
- Designed to predict implantation

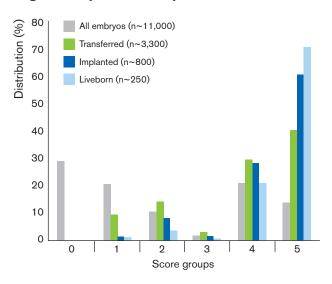
KIDScore D5 correlates with implantation potential²⁰



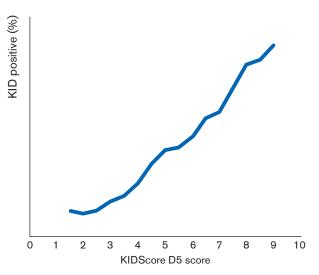
Implantation ratio by KIDScore group. Retrospective analysis of 318 known implantation treatment cycles. The use of this model in conjunction with morphology may be used to preferentially prioritise transfer decisions where there is a choice between

blastocysts of a high and lower KIDScore value.

KIDScore D3 correlates with higher implantation potential



KIDScore D5 correlates with increased implantation



KIDScore D3

When to use it

- When deciding between embryos that reach expected stage on day 3
- When D3 SET is preferred

How does it work?

KIDScore D3* assigns a morphokinetic score from 1-5 to your annotated embryos. The score from 1-5 is a relative measure of the implantation potential of the embryo. The following variables need to be annotated in accordance with specific guidelines: PN assessment, PN fading, time (t) to 2, 3, 4, 5 and 8 cells.

KIDScore D3 & implantation data

The chart represents unselected embryos, embryos chosen for transfer, implanted embryos and embryos resulting in a live birth from cycles where known outcome data is available. The distribution of embryos across score groups is shown. This indicates that there is excellent concordance between the model and embryos with high implantation potential.

*The 510k clearance for KIDScore D3 is based on its use as decision support for predicting likelihood of blastocyst formation.

KIDScore D5

When to use it

- When more good quality blastocysts are available than are planned for transfer
- When deciding which embryos are suitable for biopsy or diagnosis

How does it work?

KIDScore D5* considers the morphology and the morphokinetic traits of an embryo. For each embryo the model calculates a score from a continuous scale. The score reflects the statistical chance of implantation based on development information from the five-day culture period. The higher the score, the greater the statistical chance of implantation. Only a few annotations are required to obtain a score, which further improves the worfklow.

KIDScore D5 & implantation data

KIDScore D5 scores show an increased relative implantation with higher scores. The model is based on a large database of KID blastocysts originating from a wide range of IVF clinics.

*KIDScore D5 has not received 510(k) clearance. KIDScore D5 can only be used when culturing under reduced oxygen conditions.

CULTUREPRO INCUBATOR

For superior embryo culture, traceability and capacity.

Ease your workflow and ensure peace of mind

CulturePro is a high capacity culture incubator with low footprint and space for 15 culture dishes. Barcode labelling entry together with clear information on the screen allows easy identification of patient location and culture day status. In this way, it is easy to find the location of the patient dishes which are located in a discrete position in the instrument. This gives you a clear and simple overview that eases your workflow in the busy laboratory and minimises handling errors.

Optimised resource management all the way

Whether you are a small or large clinic, with intentions to grow your business, CulturePro is the ideal solution for you. The space-saving design is especially valuable in growing clinics where space is limited.

High patient capacity, in a single chamber design greatly improves resource management. A single validation checkpoint for gas and temperature reduces time used for QC processes. Simplify QC checks with an easily accessible sampling port and intuitive validation software interface. Very low gas usage means less change of gas cylinders.

CulturePro dish

The new CulturePro dish is specially designed for group culture preference, so that 4 embryos share a $50\mu l$ droplet. Each dish has 4 rinsing wells of $100\mu l$ each and the dish uses 1.6 ml oil overlay. Convenient handling fins ensure safe transfer of dishes minimising handling risks.



Specially designed for group culture preference

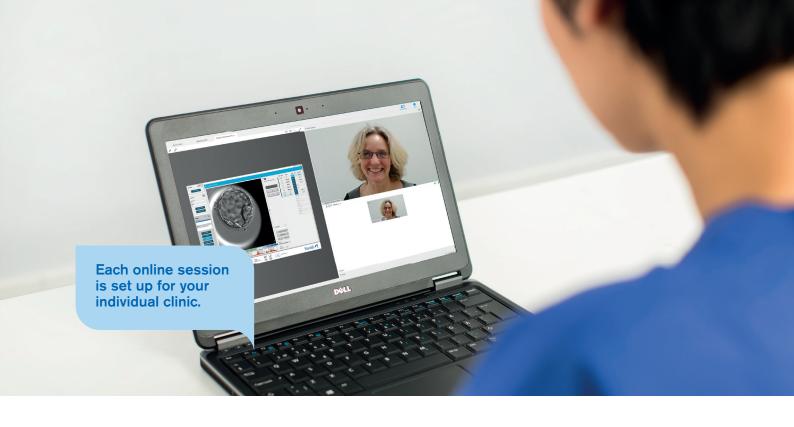


PROfessional high-end benchtop incubator

- Superior embryo culture
- Excellent traceability
- High capacity per benchspace

High capacity

15 patient culture dishes with up to 16 embryos per dish. Space-saving design especially valuable in growing clinics where space is limited.



EXTENSIVE TRAINING AND SUPPORT



Get the most from your investment. With extensive experience from IVF labs around the world we can provide you with extensive support and training, to get you started and help you utilise time-lapse to its fullest potential.

Installation by a certified instructor

When you have invested in an EmbryoScope time-lapse system, a Vitrolife-certified instructor will install the system in your clinic. During the installation, we provide a thorough, interactive demonstration of the system and education in using its functions with the focus of training you to use it to its full potential.

24-hour support

Half-yearly service visits ensure the continuous, optimal performance of all instrument components. Also, a 24-hour technical support is at your disposal via our customer hotline, which responds to all issues

relating to your EmbryoScope time-lapse system. Both the half-yearly service visits and access to the 24-hour technical support require a maintenance agreement.

Online scientific support

You also have the possibility to advance your time-lapse use with Vitrolife's online scientific support for time-lapse application. Online scientific support focuses on your practical use of time-lapse technology in all parts of your clinic's workflow and on the scientific basis that this builds on. An online session will be designed to target the issues relevant to your needs and can include information sharing, demonstrations and questions & answers.

EmbryoScope 8, EmbryoScope+, EmbryoScope Flex time-lapse incubators, and CulturePro incubator

Instrument	
Capacity	EmbryoScope8 Eight (8) disposable EmbryoSlide+ culture dishes holding 16 embryos each
	EmbryoScope+ Fifteen (15) disposable EmbryoSlide+ culture dishes holding 16 embryos each
	EmbryoFlex Twentyfour (24) disposable EmbryoSlide Flex culture dishes holding 6 embryos each
	CulturePro Fifteen (15) disposable EmbryoSlide+ culture dishes holding 16 embryos each
Operation	Individual culture dishes may be inserted and removed independently
Patient data	Read automatically from barcode
Dimensions	W x D x H (55 x 60 x 50) cm / (21.7 x 23.6 x 19.7) in
Weight	50 kg / 110 lbs
Input voltage	Versions compatible with different regional voltages available
Power consumption	Max 250 W, typical 95 W
Operating range	20 °C – 28 °C
Alarm system	Monitoring of incubation conditions and subcomponent integrity; audible and visible alerts when incubation conditions are out of range.

Image acquisition - n/a for CulturePro					
Focal planes	Eleven (11) focal points at each time point				
Built-in microscope	Custom designed 16x, NA 0.50, LWD Hoffman modulation contrast objective lens				
Camera resolution	2.2 MP, 3 pixels per μm , monochrome, 12-bit				
Embryo illumination	\leq 0.020s per image using single red LED (630nm) gives 42 J m $^{-2}$ for image acquisition (5 day culture)				
Time between acquisitions	10 min. cycle time for 11 focal planes				

Tri-gas incubator	r, integrated in instrument
Temperature	36 °C to 39 °C ± 0.2 °C
Oxygen	4 % to 8 % ± 0.5 % or ambient
N ₂ consumption	Max 5 L/hr, typical 2-3 L/hr
CO ₂	3 % to 8 % ± 0.3 %
CO ₂ consumption	Max 2 L/hr, typical 0.5 L/hr
Active air circulation	Full purification of gas volume every 6 minutes
Volatile organic compounds	Removed by active carbon filter
Particles	Removed by HEPA filter which retains 99.97% particles >0.3 μm

Data acquisition, Intel based fanless embedded PC - n/a for CulturePro Network 1 Gb Ethernet Operating system Microsoft Windows Embedded Data format for images Monitor 10.1" capacitive touch screen

Europe: CE-marked class Ila medical device.
USA: EmbryoScope+ has received FDA 510(k) clearance. EmbryoScope 8,
EmbryoScope Flex and CulturePro have not received FDA 510(k) clearance.

EmbryoSlide+ culture dish*					
Micro well culture	Sixteen (16) numbered wells for incubation of individual embryos in reservoirs of 2 x 180 μ l medium. Four (4) wells for flushing of embryos. No need for humidified environment.				
Microscopy	Fully compatible with standard and inverted microscopes				
Size	Dish size (50 × 70 mm)				
Packaging	Dishes packed individually with lid in sterile pouche. 2D barcode for batch specification.				
Sterilisation method	E-beam sterilised according to ISO 11137 with SAL 10 ⁻⁶ . Single use, sterile.				
Toxicity test	Embryotoxicity tested with 1-cell mouse embryos – minimum 80% expanded blastocysts after 96 hrs. Cytotoxicity test according to ISO 10993-5.				
Labelling	MEA tested barcode labels for automatic patient registration.				

Europe: CE-marked class IIa medical device, USA: FDA 510(k) clearance

EmbryoSlide	e Flex culture dish*
Micro well culture	Six (6) numbered wells for incubation of individual embryos in a reservoir of 140µl medium. Two (2) wells for flushing of embryos. No need for humidified environment.
Microscopy	Fully compatible with standard and inverted microscopes
Size	Dish size (32 × 65 mm)
Packaging	Dishes packed individually with lid in sterile pouche. 2D barcode for batch specification.
Sterilisation method	E-beam sterilised according to ISO 11137 with SAL 10-6. Single use, sterile.
Toxicity test	Embryotoxicity tested with 1-cell mouse embryos – minimum 80% expanded blastocysts after 96 hrs. Cytotoxicity test according to ISO 10993-5.
Labelling	MEA tested barcode labels for automatic patient registration.

Europe: CE-marked class IIa medical device. USA: Has not received FDA 510(k) clearance.

EmbryoView	er® software
PC	Powerful small form factor PC
Dimensions	W x D x H (3.5 x 18.0 x 18.0) cm / (1.4 x 7.1 x 7.1) in
Display dimensions	W x D x H (58.0 x 21.0 x 42.0) cm / (22.8 x 8.3 x 16.5) in
Weight	1.3 kg / 2.8 lbs
Input voltage	110-240 V AC
Jog wheel	Included for ease of video replay
Data export	Patient and annotation data can be exported to Excel format for further data processing
Image export format	JPEG
Video export format	AVI
Europe: CE-marked cla	ss I medical device. USA: FDA 510(k) clearance.

ES server	
Dimensions	W x D x H (17.5 x 47.52 x 36.82) cm / (6.9 x 18.7 x 14.5) in
Weight	18.96 kg / 41.79 lbs
Input voltage	AC 120/230 V (50/60 Hz)
Capacity	Typically 2500 treaments (upgradable). Depends on image aquisition settings.

Europe: ES server software is CE-marked as a class I medical device. USA: EmbryoScope+, of which ES server software is part, has received FDA 510(k) clearance.

ES server+	
Dimensions	W x D x H (19.5 x 48.05 x 44) cm / (7.68 x 18.92 x 17.32) in
Weight	22kg / 48,5 lbs
Input voltage	AC 120/230 V (50/60 Hz)
Capacity	Typically 22500 treatments. Depends on image acquisition settings.

Europe: ES server software is CE-marked as a class I medical device. USA: EmbryoScope+, of which ES server software is part, has received FDA 510(k) clearance.

^{**} Design protected

Which time-lapse system is right for you?

A guide that will help you choose which time-lapse system to implement in your IVF laboratory.



EmbryoScope 8

Clinics who need a smaller capacity or wish to complement their current set-up.



patients per incubator



EmbryoScope+

Clinics who wish to implement time-lapse as a standard of care to more of their patients.



patients per incubator



EmbryoScope Flex

Clinics who wish to utilise time-lapse in mild stimulation cycles and for low responder patients.



patients per incubator



embryos





embryos



Day 5 cycles per year



Day 5 cycles per year

16-well



Day 5 cycles per year







6-well dish, barcode labelling









Time-lapse by Vitrolife – everything you need

Vitrolife has everything your clinic needs to maximise time-lapse culture and evaluation, including time-lapse monitoring systems and a specially formulated culture medium.

Whether you want to implement and enjoy the benefits of an integrated time-lapse system for 8, 15 or 24 patients or complement your current set-up with a high capacity culture incubator, you can feel confident partnering with us.

Optimise all the way

Optimised for time-lapse technology, G-TL provides optimal culture conditions, maximising embryo viability. Time-lapse technology has allowed IVF professionals to minimise handling stress. In order to take this concept to the next level, a culture media has been developed specifically to support fully undisturbed embryo culture conditions. G-TL was the first single step culture medium specifically designed and validated to support human embryo culture in a time-lapse environment.

In addition, OVOIL provides the perfect overlay to prevent evaporation. The high quality makes it ideal for the challenges presented by extended culture conditions.

ORDERS & CUSTOMER SUPPORT

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