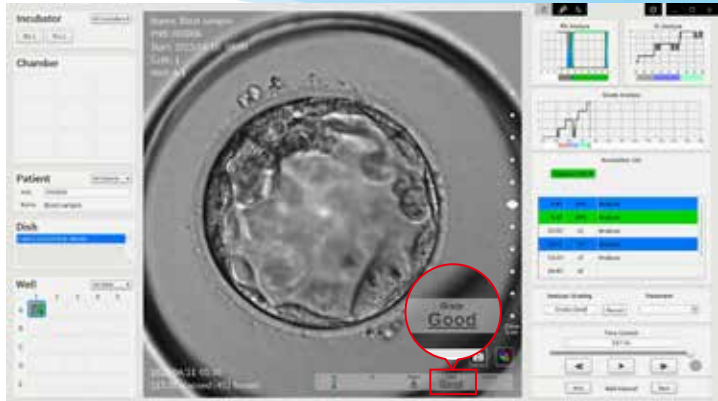## Blastocyst evaluation function

The fourth function is a blastocyst evaluation function that targets the 4th day of culture until day 7 of embryo development using the Gardner Morphological classification. Embryos with good morphological characteristics are evaluated.

Volatile Organic Compounds filter (optional)

STEC VOC filter removes contaminants such as VOC, Chlorinated Acyl Chloride (CAC), microorganisms, aldehydes, and particles that flow into the incubator from the gas line. It is compact and uses a magnetic system, it can be installed in any installation space.

The annotations can also be manipulated arbitrarily, allowing you to override the automatically determined annotations. Also, the diameter and area of the embryo can be calculated instantly.

This user-friendly software allows you to freely change image settings and export time-lapse videos and image files.

Astec Viewer allows you to play videos of all embryos simultaneously, automatically annotates each embryo, and allows you to easily check the annotation results in a list.

SPECIFICATIONS

MODEL CCM-iBIS

	Model	CCM-iBIS-SL
Main body	External dimensions	(W)382mm×(D)590mm×(H)219mm *(Projections excluded)
	Number of Incubation Chambers	9 (25-Well EmbryoGrid)
	Inside-chamber dimensions	62 mm (W) x 65 mm (D) x 17 mm (H) Capacity: Approx. 69 ml
	Humidification method	Non humidification
	Power supply	110V-120 VAC 50/60Hz 3A or 220-240 VAC 50/60Hz 1.5A (Voltage fluctuation : within ±10%)
	Weight of the main body	Approx. 30kg
Optical system	Camera	1.3-million-pixel CCD camera, 4.86 mm x 3.62 mm imaging size
	Objective lens	Lens (10 x) for biological microscopes
	Light source for illumination	Red LED (Peak wavelength: 623 nm)

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made Affordable & Easy!

CCM-iBIS

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With Integrated Cell Culture Monitoring System

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Good things come in small packages!

As a leading manufacturer of IVF/Research laboratory equipment, we value our customer's opinion and constantly strive to meet their demands; therefore we have invested a considerable amount of time and resources to make our units more compact, robust and user friendly. The CCM-iBIS is smaller, smarter and spectacularly more stable than its competitors by a milestone!

The upper Lids have been skillfully built with grade A Japanese Steel, curved to perfection, which allows extra room & flexibility to the user, while opening and closing the chambers. (The Red LED Light Source is built & engineered securely into the lid.)
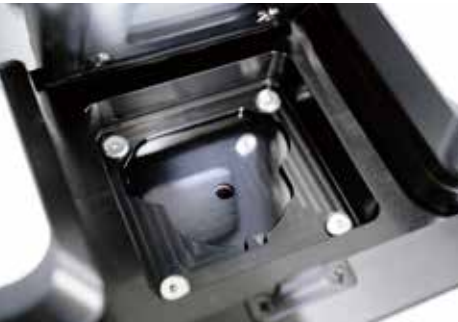
Nine small incubation chambers completely separated, securely incubate the embryos without disturbing one another. Each chamber is designed to hold one dish firmly in place, for maximum stability and steadiness during the entire process.

The CCM-iBIS uses the EmbryoGrid. It is designed to be optimized for the better results that is contributed with the group culturing of embryos as well as the use for Time-Lapse. The EmbryoGrid is commercially available with affordable price from Astec. Please contact your local Astec representatives for more information.

Small & completely separated incubation chamber.

Gas sampling port conveniently located in the front of the unit.

Equipped with all the necessary alarm systems and unique air-flow sensors.

Astec Image analyzer
Introducing all-new time-lapse image processing software

The newly developed Astec Image Analyzer is software exclusively for the CCM-iBIS time-lapse incubator. Image analysis can be performed with the new software using the dedicated Embryogrid Dish. It is possible to perform operations tailored to various purposes, such as image extraction, video creation, and scaling functions. The most important feature is that it is equipped with an image analysis function that automatically detects the pronucleus of a fertilized egg, a cleavage detection function, a blastocyst development rank function, and a blastocyst evaluation function that automatically analyzes everything from PN to blastocyst. *Final judgment must be made by human eyes.
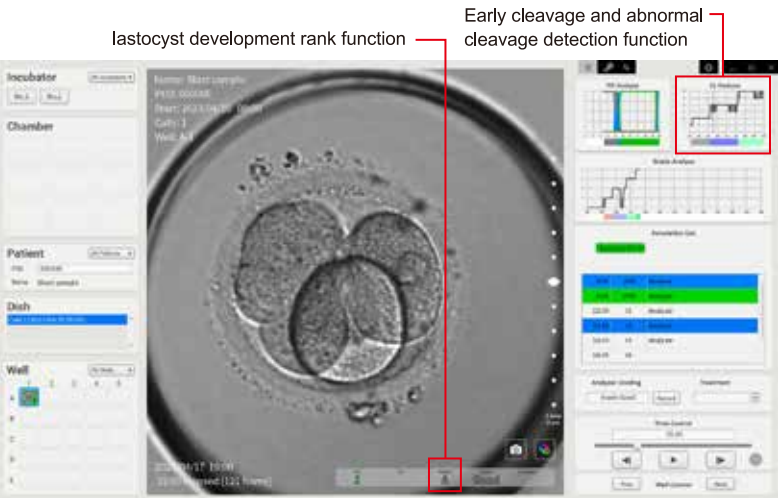
AI will automatically recognize the PN
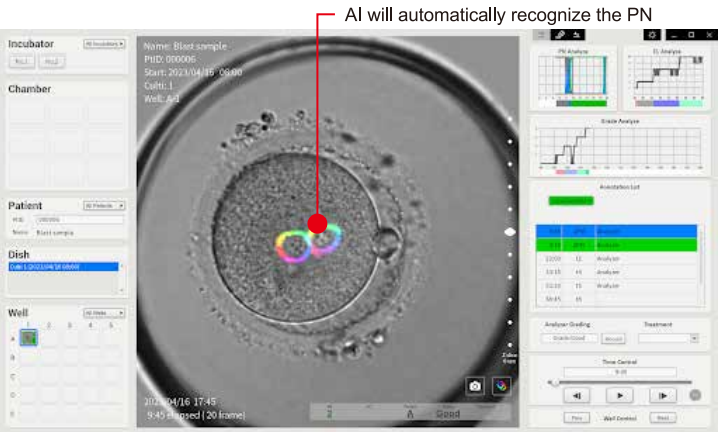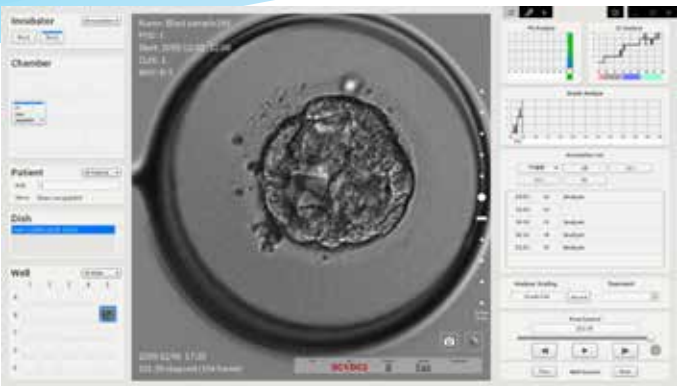
Automatic pronuclear detection function

Embryologist have to face several pronuclei patterns at the time of fertilization assessment. Since nucleolar arrangement is strictly time-dependent, this assessment creates some disadvantages in the lab. The Automatic pronuclear detection function uses deep learning technology to analyze captures images and automatically detect the pronuclei status, making correct observations with no burden on embryologists

lastocyst development rank function

Early cleavage and abnormal cleavage detection function

Blastocyst development rank function

The third function is the blastocyst development rank function, which is used on the third or fourth day of culture. Based on the division status at the early stage of culture, this function estimates the expected rank on a four-level scale as to whether the embryo will develop well to the stage called a blastocyst on the fifth to seventh day of culture.

The touch panel interface enables intuitive operation

Imaging begins only when the patient's name. ID, time of insemination and locations have been entered. The imaging schedule information on the interface allows you to see at a glance when each dish will be imaged by the camera, making it easy to check the camera schedule and which chamber is currently being imaged.

Early cleavage and abnormal cleavage detection function
(1st to 3rd day of embryo development in culture)

This function detects early cleavage and abnormal division, which is utilized on days 1 to 3 of culture. It detects the timing of "early cleavage", the initial cell division in the process in which a fertilized egg divides into 2-cell. It also detects the occurrence of "abnormal division", an event in which the egg divides into an abnormal number of cells during the first cleavage. These two detection functions, which target the early stages of culture, are a system that supports the final evaluation of the embryo.