

# Microscope Incubation - Heating, Cooling & Gas Control

Heated Stage Inserts - Objective Heaters - Whole Microscope Cooling -Heater Cooler Stage Inserts - Advanced Vibration Free Heater Technology CO<sub>2</sub> Controller - CO<sub>2</sub>-O<sub>2</sub> Hypoxia Controller

#### **Microscope Incubation Chamber System**

"I'm very pleased with our Heating System from Microscope Heaters. We are routinely running 72hr plus time-lapse experiments on primary cells. It is completely silent and great not to have the noise of a loud convection fan"

### Dr Jens Eriksson, Uppsala University, Sweden

#### Whole Microscope Heater Cooler Solution

"We study early-stage biofilm formation in the opportunistic pathogen Pseudomonas aeruginosa. Crucially, the incubation chamber has dual-capability: it can both heat and cool our samples."

# Jamie Wheeler, Foster Group, University of Oxford

#### Drosophila Imaging- Heater Cooler System

"Developed for the University of Oxford to image Drosophila embryogenesis, and maintain precise temperature control at 18,22,25 and 28°C over a 10-24 hour period. Better than 0.2°C accuracy is required and maintained. The system heats and cools the sample when required"

# Alan Wainman Raff Group, University of Oxford

#### Heated Microscope Inserts and CO<sub>2</sub> Controller

"Our Microscope\_Heaters Heated Insert and CO<sub>2</sub> Controller system is great! We would highly recommend this system to any researchers using live cell imaging."

> Professor Klaus Suhling Kings College, London

## New Generation Objective Heater System

"The heater is easy to fit and set up, and provides excellent thermostability during extended time course imaging at 37°C."

> Andrew Jefferson Micron Imaging Facility, University of Oxford



WIMM University of Oxford



**Biosciences - University of Birmingham** 

Oxford Heidelberg Cambridge Marseille Paris

# **Complete Cell Viability Product Range**

#### **Microscope Incubation Chamber System**

Provides the ultimate environment to allow long term time lapse experiments. Our unique vibration free heating technology, provides the best stability, with minimal sample perturbation.

Temperature Range Accuracy Ambient plus 1°C to 42°C + - 0.3°C

#### Whole Microscope Cooling System

Designed for applications where an extended sample area needs to be cooled, i.e. for cooling microfluidic systems. Used in bacterial biofilm formation research.

Cooling Range	12-15°C below Ambient
Accuracy	+ - 0.3°C

#### **Stage Top Heater Systems**

Independent control over the insert base and glass cover, provide accurate sample temperature control. This combined with a flexible portable package make it ideal for applications running on multiple microscope systems.

Temperature RangeAmbient plus 1°C to 55°CAccuracy+ - 0.3°C

#### **Microscope Objective Heater**

New generation objective heater, combines a flexible heating element with temperature sensor in contact with objective. Available integrated with Stage Top Heater.

#### **Stage Top Heater/Cooler Systems**

This fully integrated system provides precise sample temperature control in the range 5-50°C. Designed for use in non-mammalian model system research. i.e Dictyostelium, Xenopus, Zebrafish, Yeast First systems have been used to study Drosophila Embryogenesis.

Cooling Range Accuracy 12-15°C below Ambient + - 0.3°C

#### Hypoxia Stage Top system

A sealed insert with internal  $CO_2$  and  $O_2$  sensors provide The most reliable system available, with gas concentrations measured at the sample.

CO <sub>2</sub> Range	0-10%
O <sub>2</sub> Range	21-1%

#### **CO2 Gas Controller Systems**

Microprocessor controller range 0-20%. Internal variable pump system. Requires only 100% CO<sub>2</sub> supply.

#### **Sealed Stage Inserts**

Provide a closed environment to maintain raised  $CO_2$  concentration at the sample. Accept 96-well format, Petri dish and slides. Compatible with Prior, ASI, Marzhauser and Ludl Stages.

#### Selection of Installed Systems

Nikon Ti-E Crest **Olympus IX83 TIRF** Nikon TI-2 Crest Confocal Zeiss 880 Airyscan Nikon Ti-E Yokogawa Nikon TI-E Aurox Confocal **ASI RAMM** Abberior Olympus IX83 Nikon Ti-E Cairn RS Super Resolution **PicoQuant Olympus IX83** Leica DMi8 SP5 Nikon Ti-2 Light Sheet **Nikon Super Resolution** Nikon Ti-E **Olympus IX83 3i Spinning Disc & TIRF** 

Birmingham Oxford Uppsala Sussex Dusseldorf Oxford UCL Heidelberg LMB Cambridge San Diego Exeter Cambridge Marseille Marburg Toronto Sussex

Zeiss PicoQuant Olympus Leica

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