

# PROcellcare

automated life cell feeding system

[www.procellcare.de](http://www.procellcare.de)

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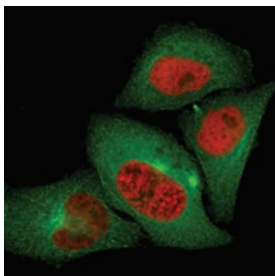
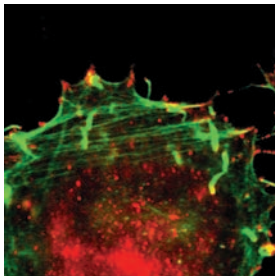
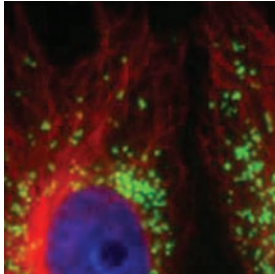
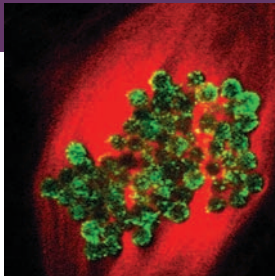
long term testdesign 24h/7d

for high throughput imaging

microtiter plate compatible HT-microscopy



# PROcellcare



## Description

PROcellcare stands for a system, which supplies life cells (in-vitro) under the microscope with biological nutrient and working solutions. By controlling the entire instrument in the incubator from outside, the scientist/developer is allowed to execute an automatic dispensing process without perturbing the environment in the incubator. With the help of PROcellcare it is possible, for the very first time, to perform specific tasks with high throughput rates on life cells.

## Fields of Application

molecular biotechnology (life cell imaging)

drug and pharmaceutical research

life science

## Product Features

- ▶ Liquid handling in closed incubator
- ▶ Reduction of contaminations with 2-channel system
- ▶ Exact and reproducible results are obtained with high statistical evidence
- ▶ Less influence on images is secured by pipetting in the optical axis
- ▶ The pipetting volume is freely adjustable ranging from about 10  $\mu\text{l}$  up to about 300  $\mu\text{l}$  per dispense process with an accuracy of down to 1  $\mu\text{l}$  (depends on viscosity of fluids)
- ▶ Control via UART (USB)

### High Throughput

- ▶ Increased high throughput rates at in-vitro work due to automation of the liquid handling process

### Minimum Instrument Volume

- ▶ Minimum instrument volume in optical axis to be fixed and used on conventional microscope desks

### User control

- ▶ Instrument control via handheld station with display at the microscope
- ▶ menu-guided parameter setting

### 24h/7d Control

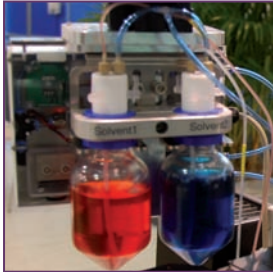
- ▶ full instrument and parameter control via UART (USB)
- ▶ computer based automatic time and event control (24h/7d) of the system in combination with the microscope for most installations possible
- ▶ free adjustable data for every protocol step via computer possible: time-controlled dosage of nutrients, suction and rinsing processes

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## System Configuration

The system can be mounted on inverse microscopes of established manufacturers, such as Olympus®, Leica®

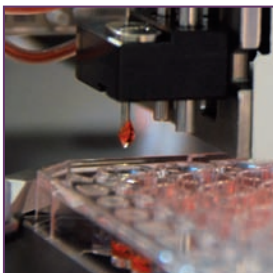
Solvent Unit



Dispense Unit



Dispense needle



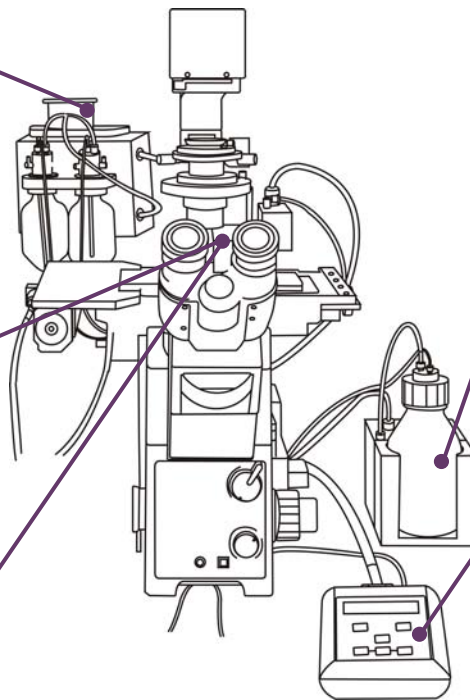
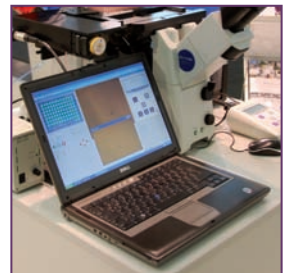
Waste Unit



Control Unit



Software interface



## Benefits

- ▶ Uniform and homogenous pipetting of microtiter plates
- ▶ Liquid handling of two different fluids with a 2-channel system
- ▶ Flexible test duration: continuous operation 24h/7d possible with according computer control
- ▶ Simple installation: out-of-the-box solution for different microscopes
- ▶ No influence on the incubator climate due to liquid handling in closed incubator



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