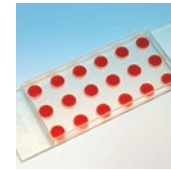
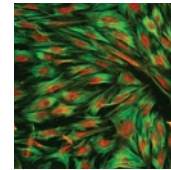
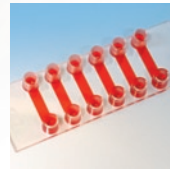
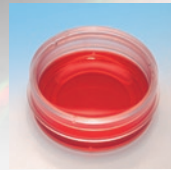
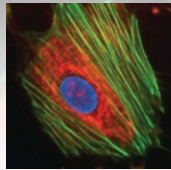
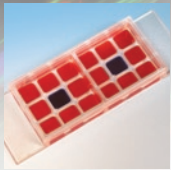




# cells in focus

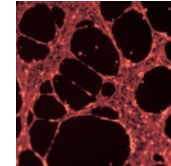
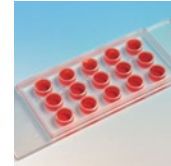
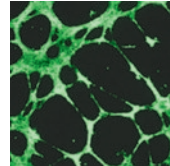
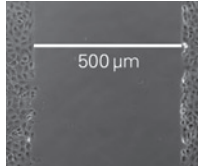
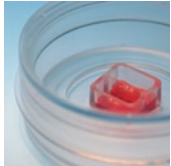


## Cell microscopy

- perfect cell growth
- high imaging quality

## Immunofluorescence

- small volume of 25  $\mu$ l
- parallel screening assays

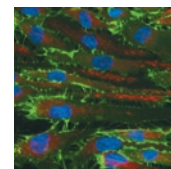
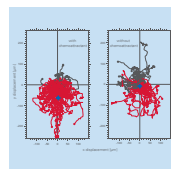
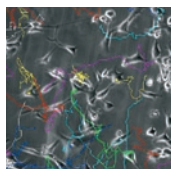


## Wound healing assays

- defined separated areas
- highly reproducible

## Angiogenesis assays

- sprouting & tube formation assays
- 3D gel matrix



## Chemotaxis assays

- stable linear gradients
- cell tracking over 48 hours
- video microscopy

## Flow assays

- defined flow rates
- rolling and adhesion

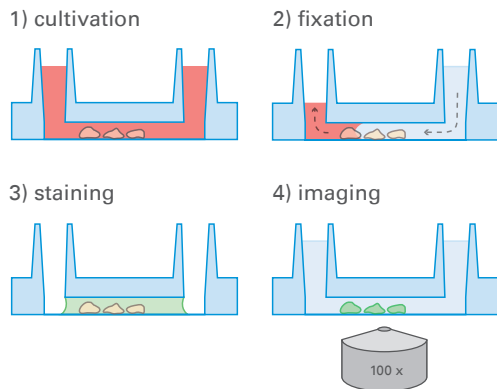
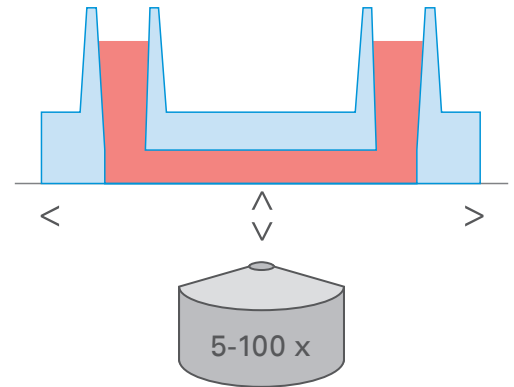


## 5 Good Reasons to Use ibidi $\mu$ -Slides

### 1 Optical Grade Bottom for Inverted Microscopes

thickness of a standard cover slip  
(180  $\mu\text{m}$ , No. 1.5)

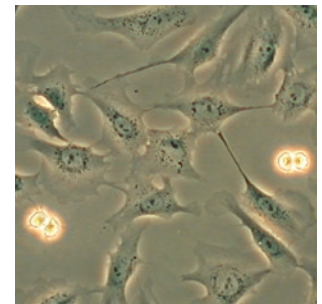
dimensions of all ibidi  $\mu$ -Slides correspond to standard microscopy slides (75.5 x 25.5 mm)



### 2 "all-in-one" Carrier

*in situ* cell experiments without cell transfer

perfect immunofluorescence staining carrier

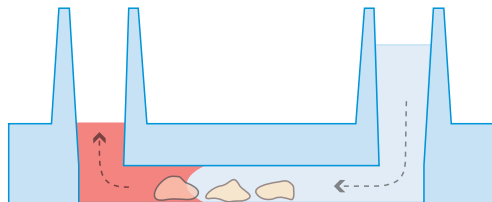


### 3 Tissue Culture Treated (ibiTreat)

for most cell types no further coating necessary

superb cell growth on the tissue culture treated surface

individual coatings possible

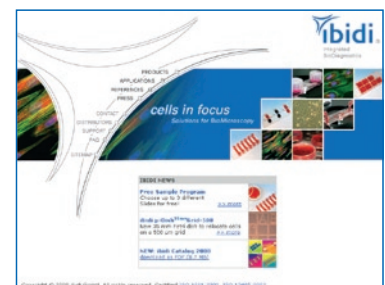


### 4 Resistant to all Fixation Methods

material resistant to methanol, acetone, para-formaldehyde, and acids

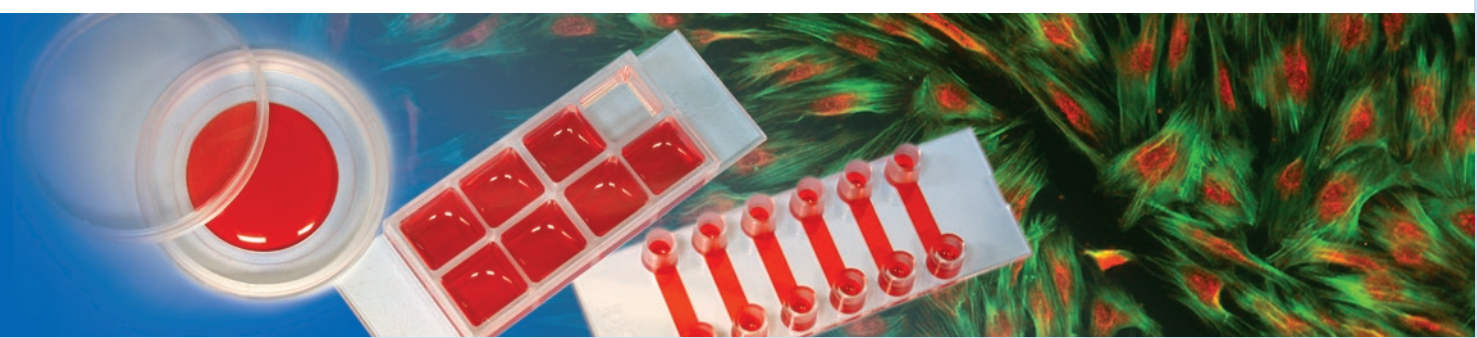
### 5 Free Sample Program

make your own experience with a free trial of our  $\mu$ -Slides and  $\mu$ -Dishes via our website: [www.ibidi.com](http://www.ibidi.com)



# Cell Culture & Microscopy

Live cell imaging and video microscopy



**μ-Dish 35mm, low**  
ibiTreat, tissue culture treated, sterile 80136

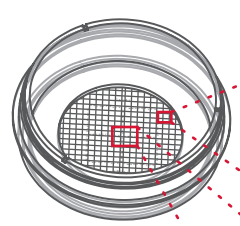
**μ-Slide 8 well**  
ibiTreat, tissue culture treated, sterile 80826

**μ-Slide VI**  
ibiTreat, tissue culture treated, sterile 80606

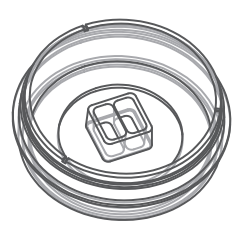
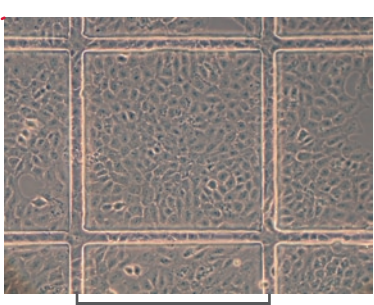


**μ-Dish 35mm, high**

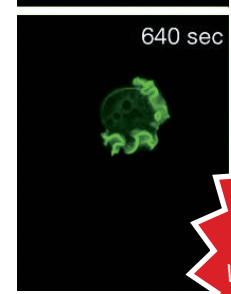
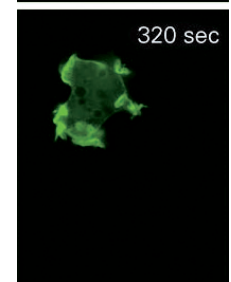
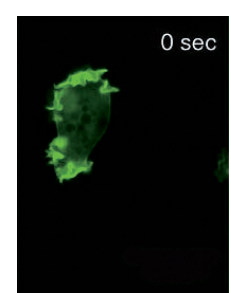
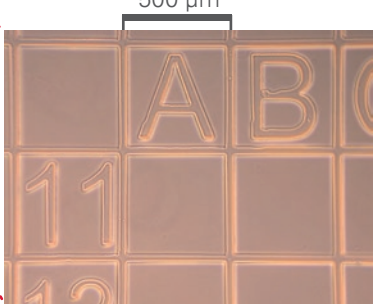
- perfect cell growth – ibiTreat
- perfect cell imaging with fluorescence and phase contrast
- various geometries available
- no glue – cell compatible
- tight closed lid – minimized evaporation effects



**μ-Dish 35mm, high mit Grid-500**



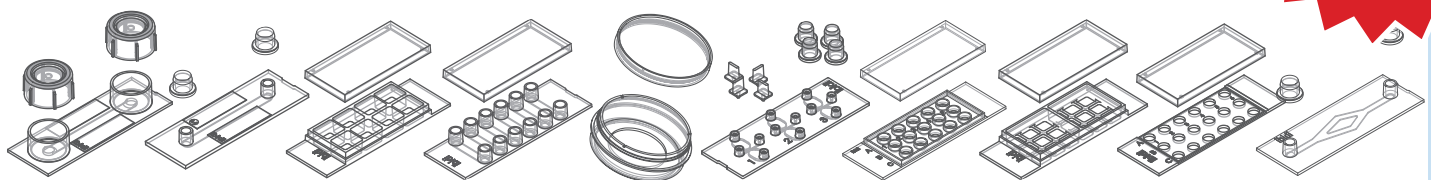
**μ-Dish 35mm, high mit Culture Insert**



## Feature:

The μ-Dishes are available with a grid which allows easy relocation of the cells at a later stage of the experiment. It can be used for cell counting, clone picking, or to reference a cell motion.

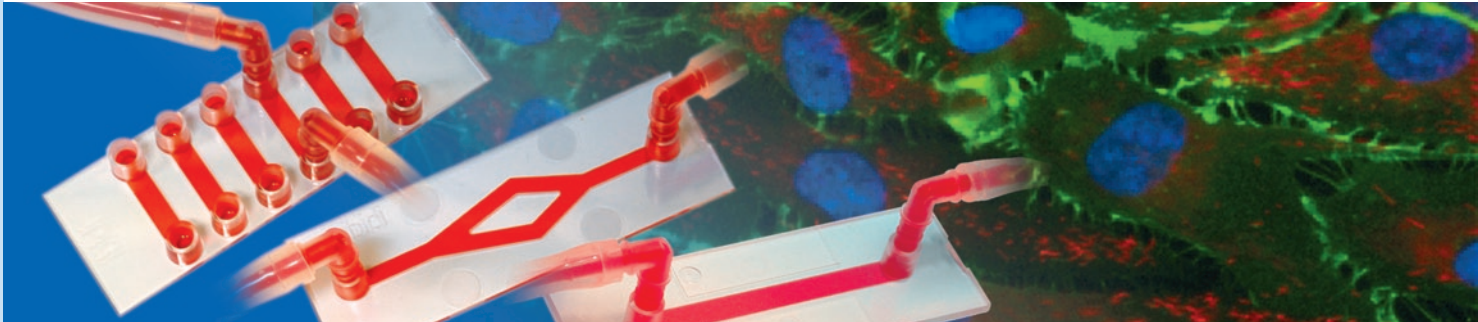
**GET FREE SAMPLES:**  
[www.ibidi.com](http://www.ibidi.com)





# Cell Based Perfusion Assays

Ready to use solutions for cells under flow conditions



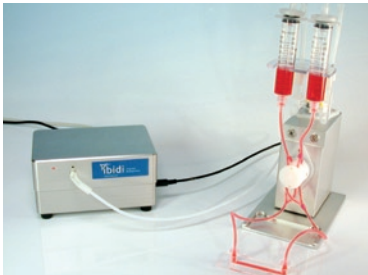
**μ-Slide VI flow kit**  
ibiTreat, tissue culture treated, sterile 80646

**μ-Slide γ-shaped flow kit**  
ibiTreat, tissue culture treated, sterile 80146

**μ-Slide I Luer flow kit**  
ibiTreat, tissue culture treated, sterile

0.2	0.4	0.6	0.8
80066	80076	80086	80096

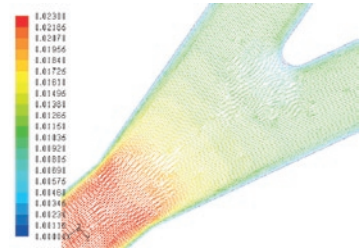
## Different perfusion pumps and syringe pumps available



**ibidi pump system**  
complete ibidi pump system 10902



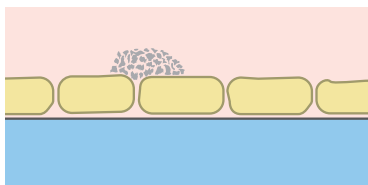
**KD Scientific Syringe Pump**  
KDS 100 10940



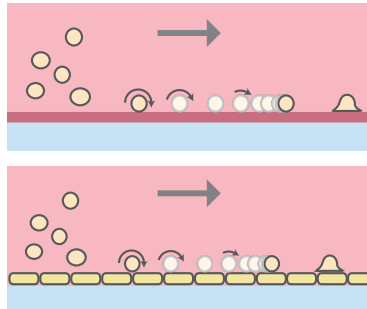
All shear rates / shear stress calculations can be found at [www.ibidi.com](http://www.ibidi.com)

## Assays

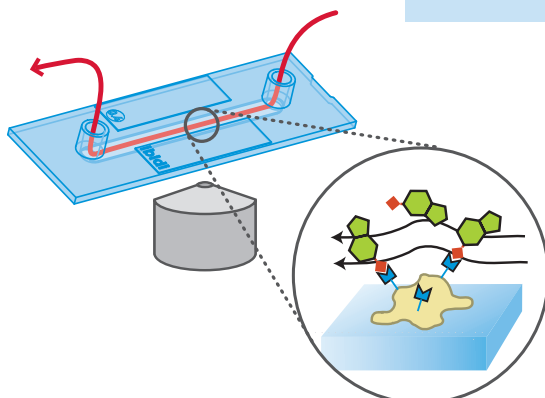
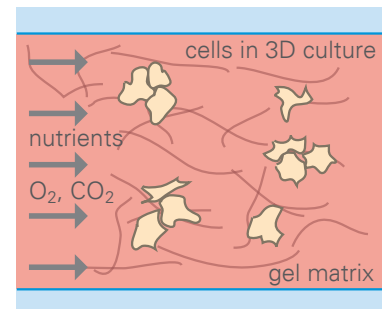
### plug formation



### rolling and adhesion



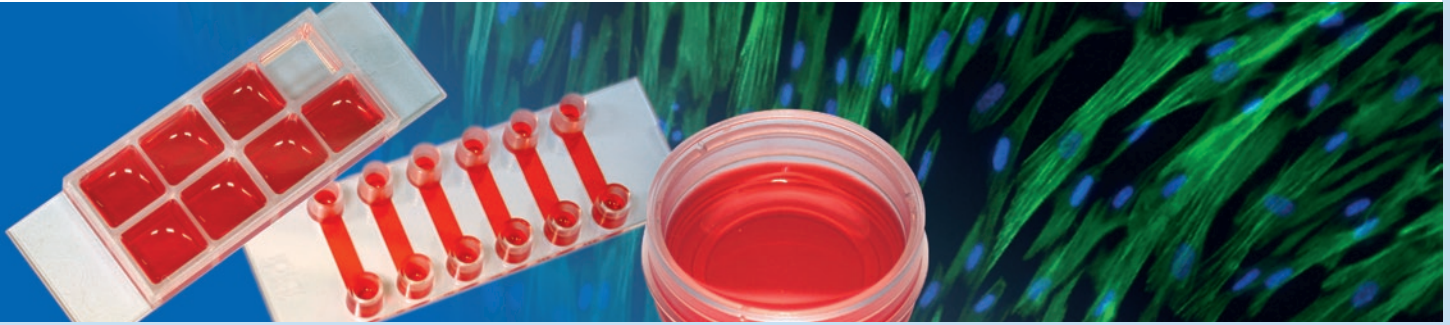
### 3D cell culture



- adhesion and migration (metastasis of tumor cells)
- cell culture under flow
- rolling and adhesion of bacteria
- arteriosclerosis
- calcium imaging

# Immunofluorescence Staining

Cultivation - Fixation - Staining - Imaging



**μ-Slide 8 well**  
ibiTreat, tissue culture treated, sterile 80826

**μ-Slide VI**  
ibiTreat, tissue culture treated, sterile 80606

**μ-Dish 35mm, high**  
ibiTreat, tissue culture treated, sterile 81156

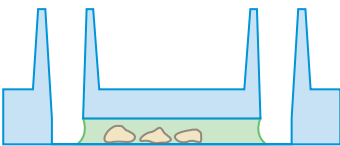
## 1) cultivation



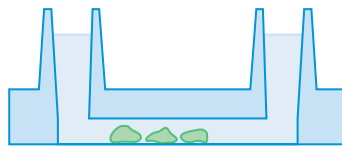
## 2) fixation



## 3) staining



## 4) imaging



μ-Slide "all-in-one" carrier



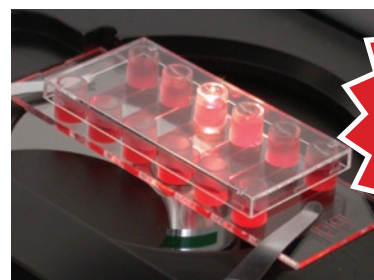
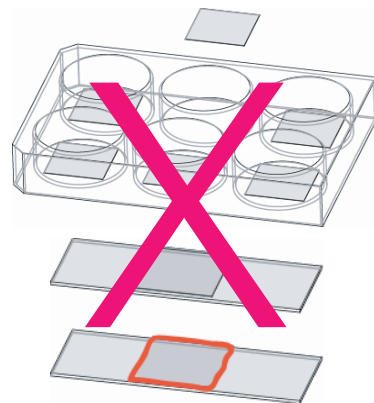
### Feature:

μ-Slides reduce the required amount of staining solutions drastically. The channels have a volume of only 25 μl. The Slides are fully resistant to methanol, acetone, paraformaldehyde, and acids.

## Mounting cells on cover slips

1. sterilize cover slips and slides\*
2. coat the cover slips\*
3. put sterile cover slips into 6-well plate\*
4. seed cells in large volume\*
5. peel the cover slip out\*
6. wash
7. fix cells
8. wash
9. stain cells
10. wash
11. mount cells with mounting medium
12. mount cover slip with nail polish\*

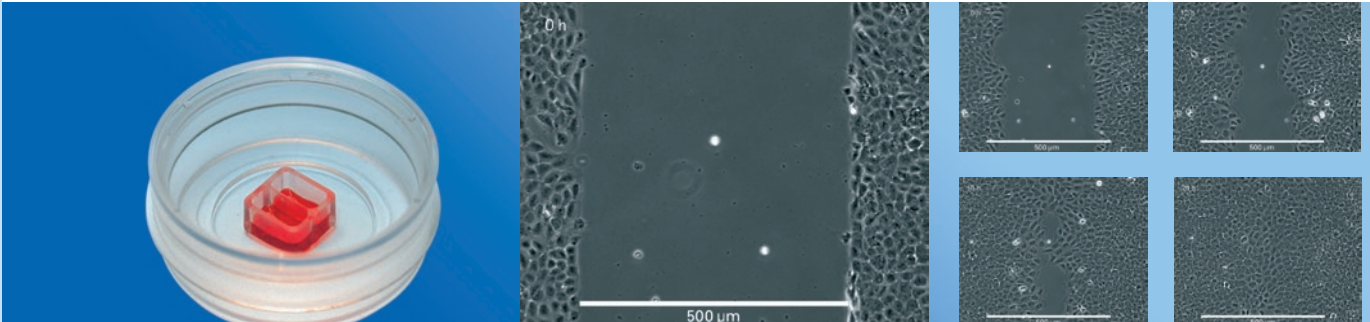
\* These steps are not necessary any longer with ibidi μ-Slides



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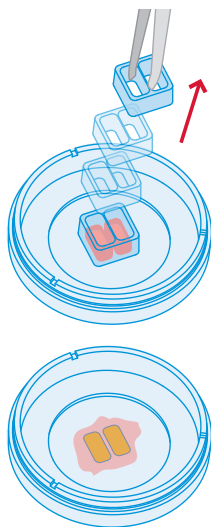
# Wound Healing & Invasion

Insert for wound healing & invasion assays to culture small cell numbers



μ-Dish<sup>35mm,high</sup> with Culture-Insert  
ibiTreat, tissue culture treated, sterile 81176

Wound Healing & Invasion



- wound healing assays
- invasion assays
- migration assays
- co-cultivation
- defined cell seeding

### ibiDish Culture-Inserts

Cell seeding into designated areas
Defined cell-free gap
Defined non-coated surface
No cell damage
Internal reference

### Scratch Assays

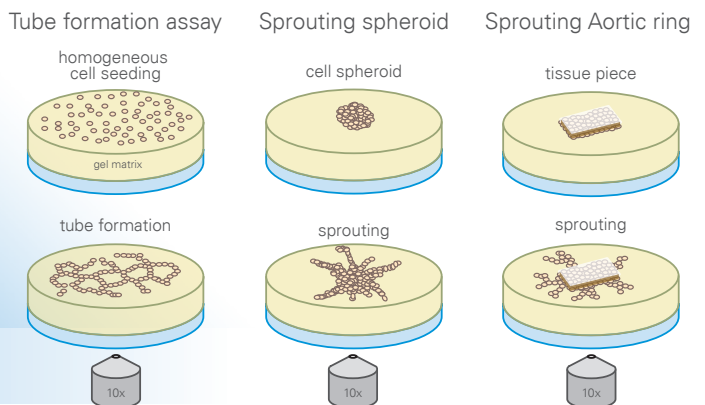
Scratching with a needle or tip
Varying cell-free gap
Possible extra-cellular matrix remains
Cell damage
No internal reference

# Angiogenesis

Angiogenesis



μ-Slide Angiogenesis  
ibiTreat, tissue culture treated, sterile 81506



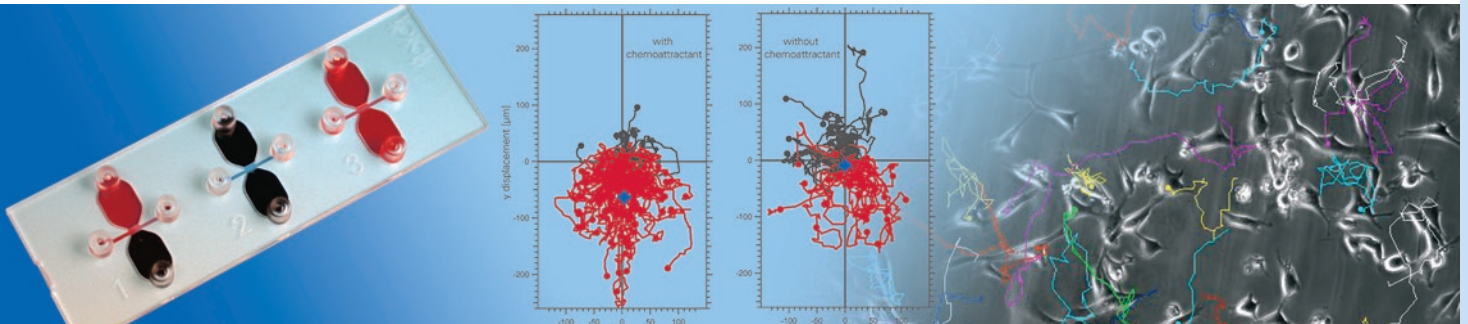
### in vitro Angiogenesis Assays

- flat gel surface ⇒ all cells in focus
  - homogeneous 0.8mm thick gel layer
  - 4mm well in 5 mm well
  - use only 10 μl of gel per well<sup>+</sup>
  - low evaporation
  - compatible with multi channel pipettes
- <sup>+</sup>The gel matrix is not part of the product.



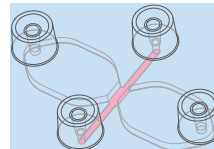
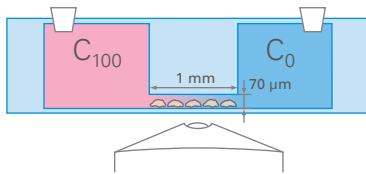
# Chemotaxis

Slide for stable gradient and migration assays of adherent mammalian cells



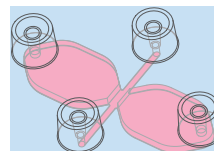
μ-Slide Chemotaxis  
ibiTreat, tissue culture treated, sterile 80306

- long term chemotaxis experiments with adherent cells
- ready to use system, no assembling
- linear gradients ⇒ stable for over 48 hours
- 3 chambers on one slide for parallel working
- made for high-end video microscopy

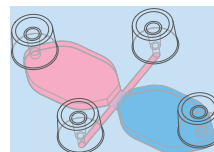


principle:

1) Seed the cells in the cross channel

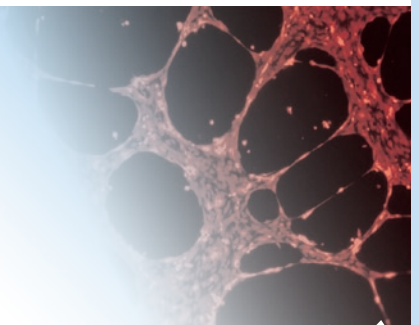
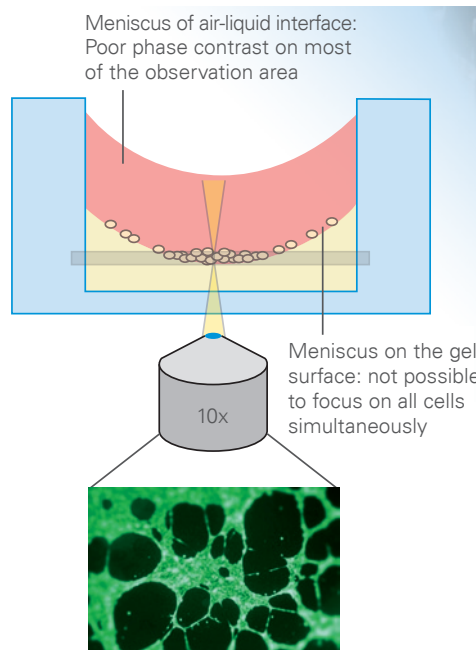
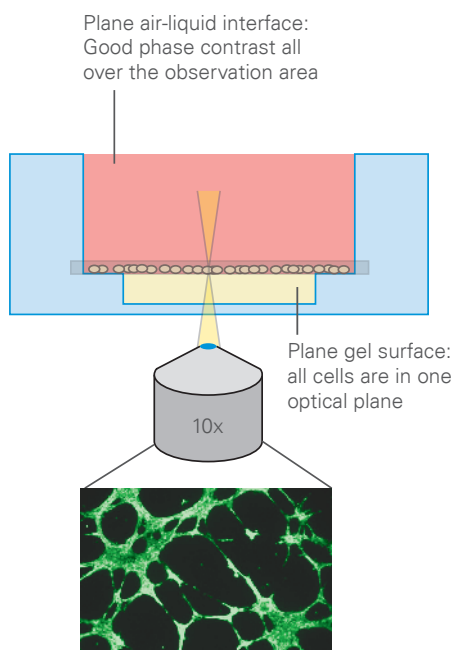


2) Fill both reservoirs with cell free medium



3) Fill one of the reservoirs with chemokine

## μ-Slide Angiogenesis vs. Standard Well

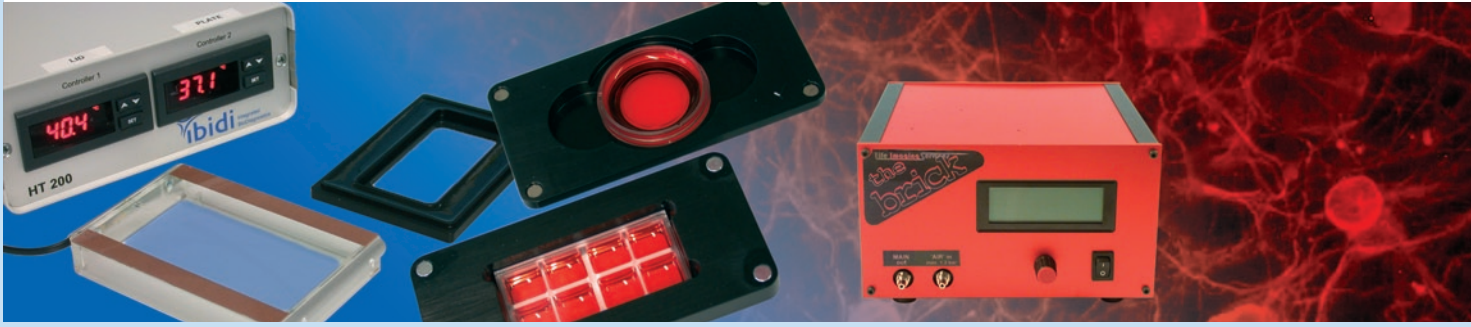


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# Universal heating system for all microscope platforms

ibidi heating stages

ibidi heating stages

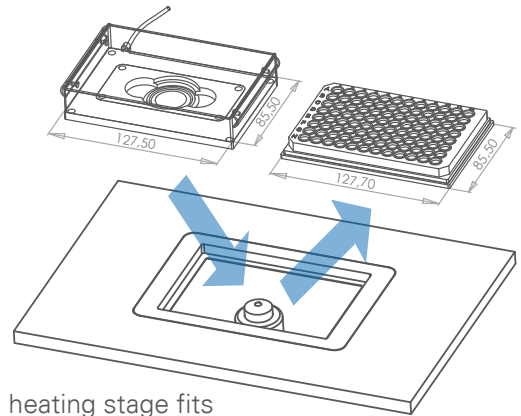


ibidi heating stage  
96 well plate heating frame with lid 10918

inserts for  $\mu$ -Slides &  $\mu$ -Dishes  
 $\mu$ -Slide 8 well 10931

incubator for microscope 10920

- very cost efficient
- plug and play system
- micro environment via heated plate and heated transparent top container
- heated transparent box



heating stage fits into multi-well holder

## System Overview 96 Well Format Heating System

