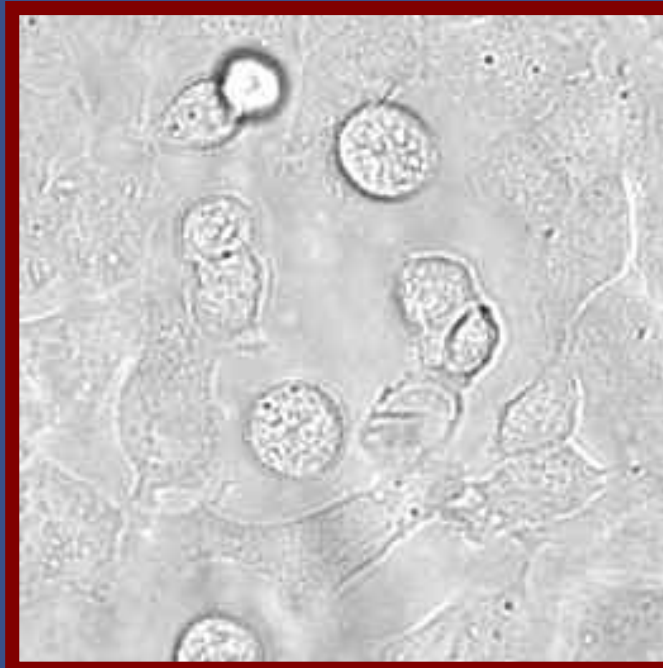


Cultivation in POC mini

Using the chamber for calcium measurements



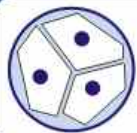
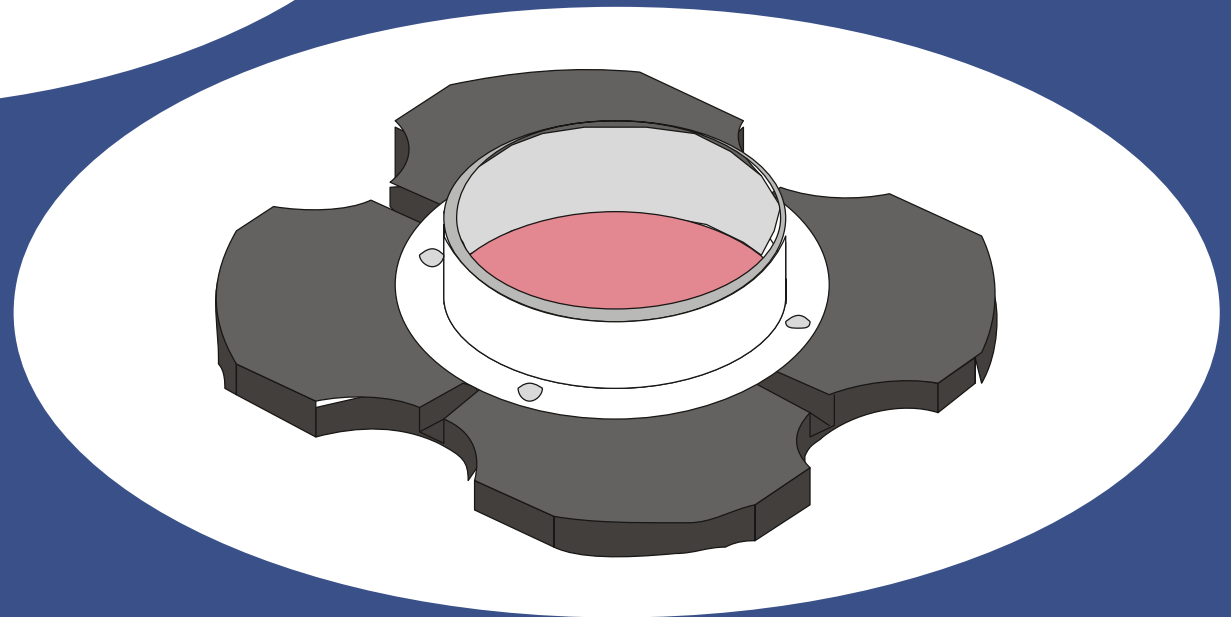
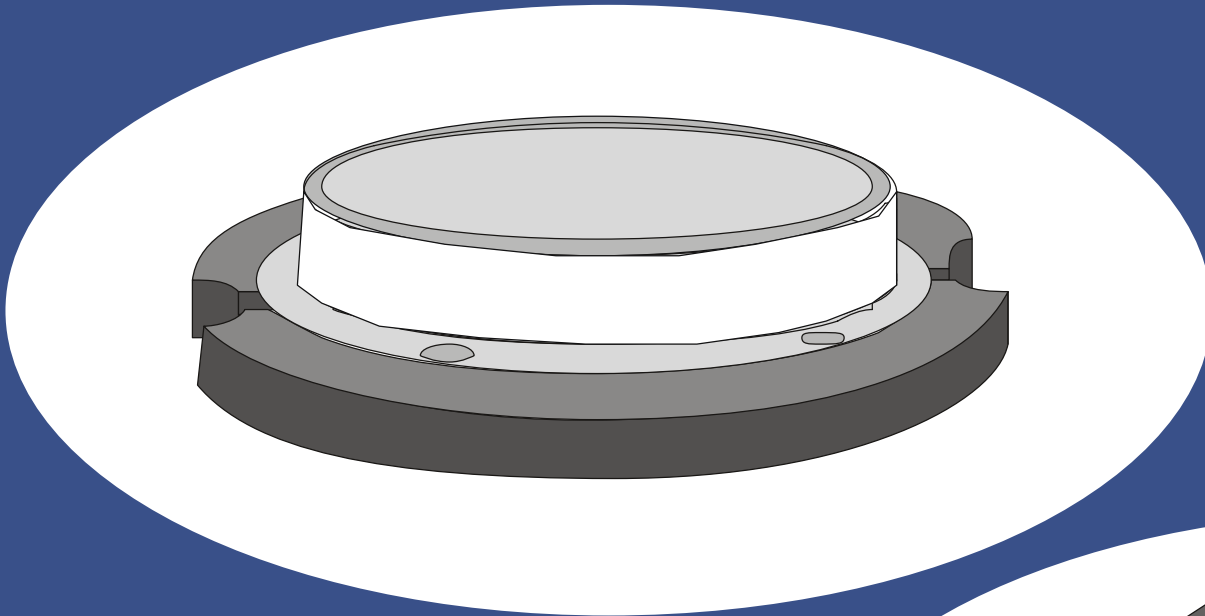
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Cultivation in POC-R2 and POCmini



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Folie 2

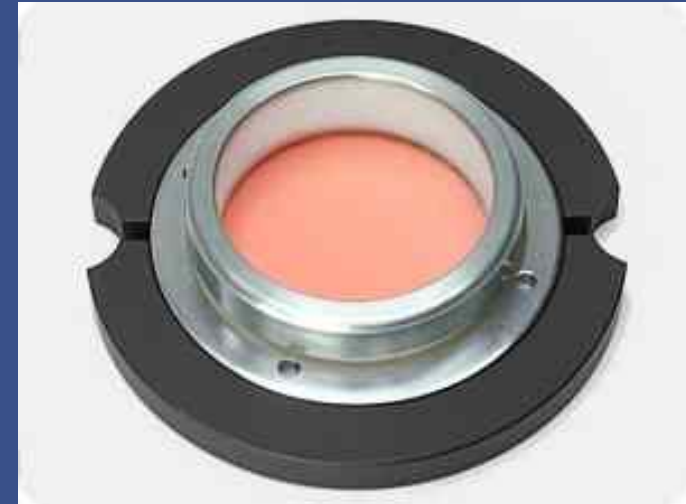
23.01.2018

System Components

Cell Cultivation Systems

➤ POC-R2 Cell Cultivation System

- Easy handling, fast assembly
- Non-toxic material
- Good sterilizable (autoclave, Heat-sterilization)
- Cultivation on a 0.17mm Coverslip,
Observation area $\text{Ø } 29 - 32 \text{ mm}$,
Area $6.6 - 8 \text{ cm}^2$
- Very good heat conduction by the aluminium base plate ($\text{Ø } 58\text{mm}$)
- Versatile usage by screw inserts:
 - * open and closed cultivation
 - * open and closed Perfusion
- Chamber volume 0.6 up to 1.8ml (application dependent)
- Precultivation on the coverslip ($\text{Ø } 42\text{mm}$) in Petri dishes possible



Cultivation in POC-R2 and POCmini



Open Cultivation



Closed Cultivation



Open Perfusion



Closed Perfusion

System Components

Cell Cultivation Systems

➤ POCmini Cell Cultivation System

- Easy handling, fast assembly
- Non-toxic material
- Good sterilizable (autoclave, Heat-sterilization)
- Cultivation on a 0.17mm Coverslip,
Observation area $\text{Ø } 17 - 21 \text{ mm}$,
Area $2.3 - 3.8 \text{ cm}^2$
- Very good heat conduction by the aluminium base plate ($\text{Ø } 58\text{mm}$)
- Versatile usage by screw inserts:
 - * open and closed cultivation
 - * open and closed Perfusion
- Chamber volume $0.16 \text{ up to } 0.8\text{ml}$ (application dependent)
- Precultivation on the coverslip ($\text{Ø } 30\text{mm}$) in Petri dishes possible



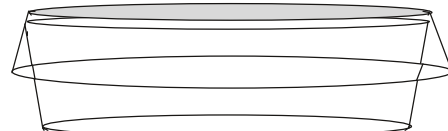
Cultivation in POC-R2 and POCmini

The POC-R2 Cell Cultivation System

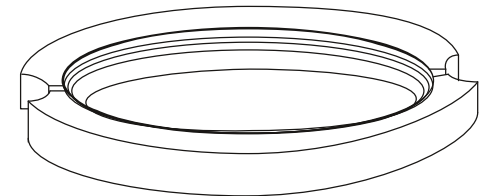
- The **Basis-Set** allows 3 different cultivation types:
 - Open Cultivation (on glass and CultFoil/FEP-Foil)
 - Closed Cultivation
 - Closed Perfusion
- An **additional available Perfusion Insert** allows a further cultivation type:
 - Open Perfusion

Precultivation on cover slips is possible:

sterile cover slip

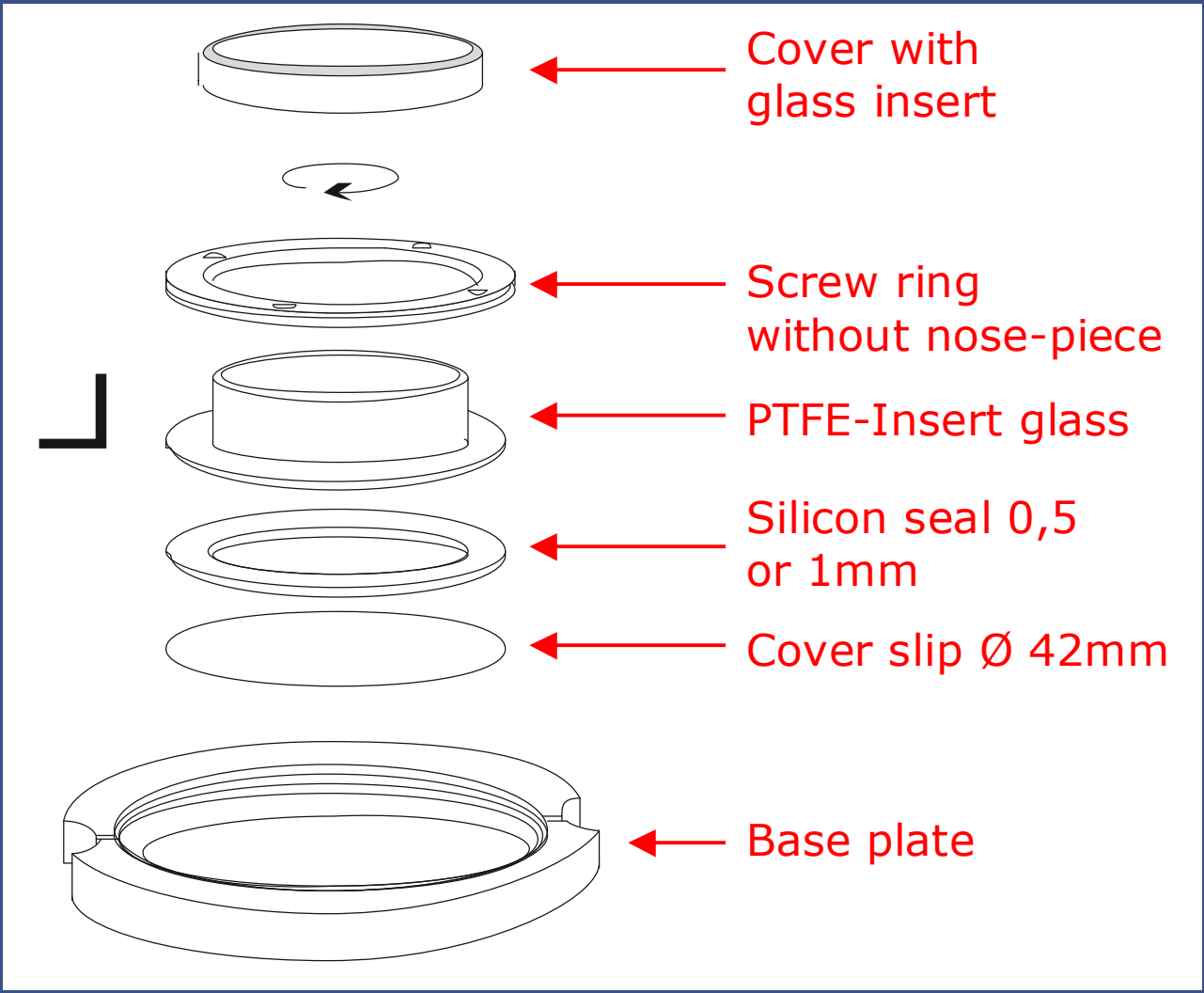


cover slip with cells



Cultivation in POC-R2 and POCmini

1) POC-R2 Open Cultivation



Cultivation in POC-R2 and POCmini

1) POC-R2 Open Cultivation

Reasons for this cultivation type:

- Quick access to cells and media
 - rapid exchange of media with test substances
 - quick cellular reaction
- Work as usual
- Micromanipulation

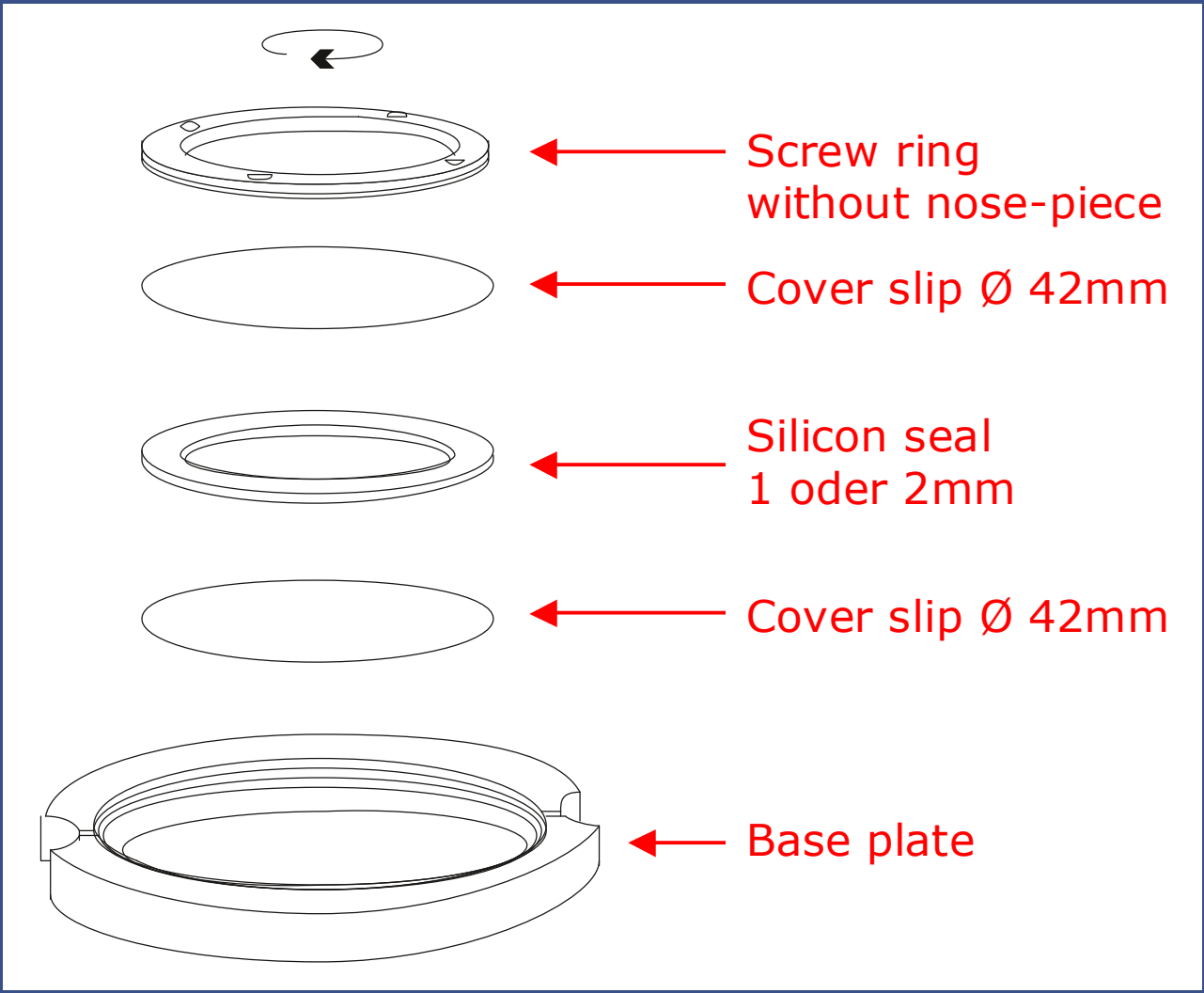


Improvements

- FoilCover to reduce evaporation
- Additional Perfusion Insert for Open Perfusion

Cultivation in POC-R2 and POCmini

2) POC-R2 Closed Cultivation

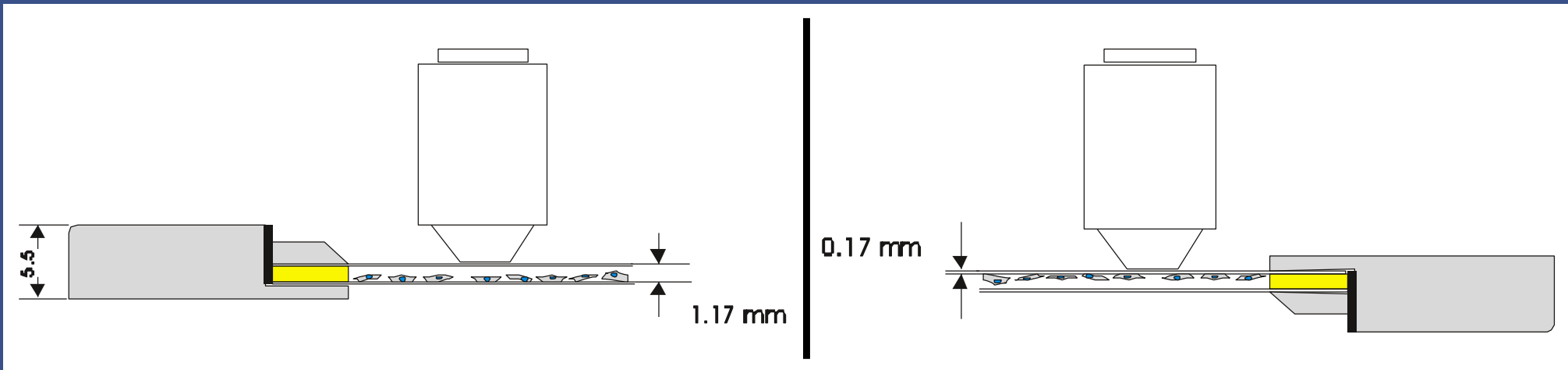


Cultivation in POC-R2 and POCmini

2) POC-R2 Closed Cultivation

Reasons for this cultivation type:

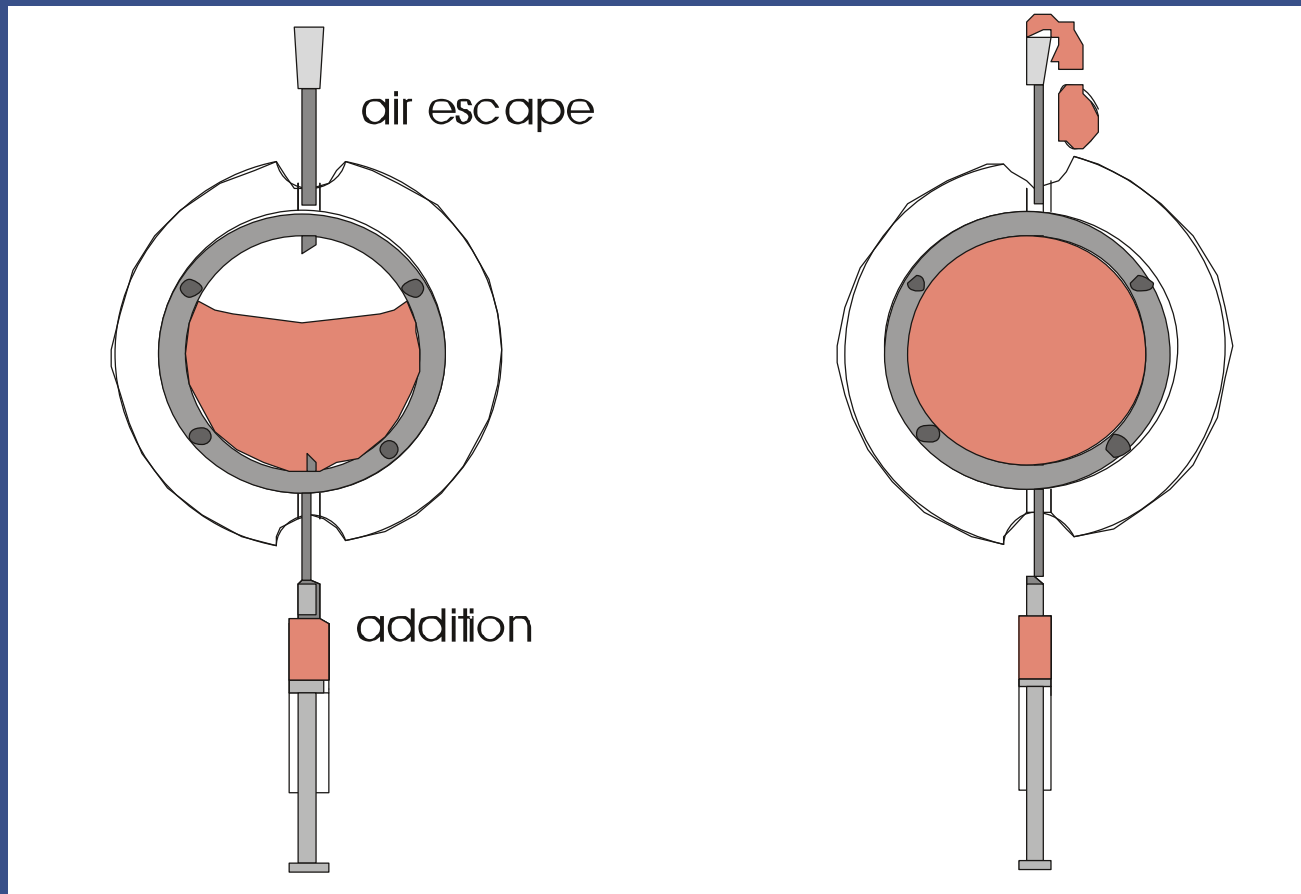
- No disturbing Meniscus
- No evaporation
- Chamber can be inverted
→ Cultivation on both cover slips possible
- Observation also on upright microscopes



Cultivation in POC-R2 and POCmini

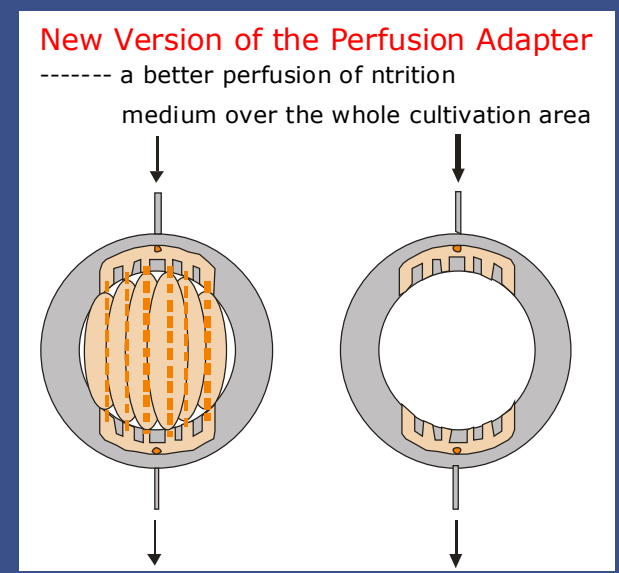
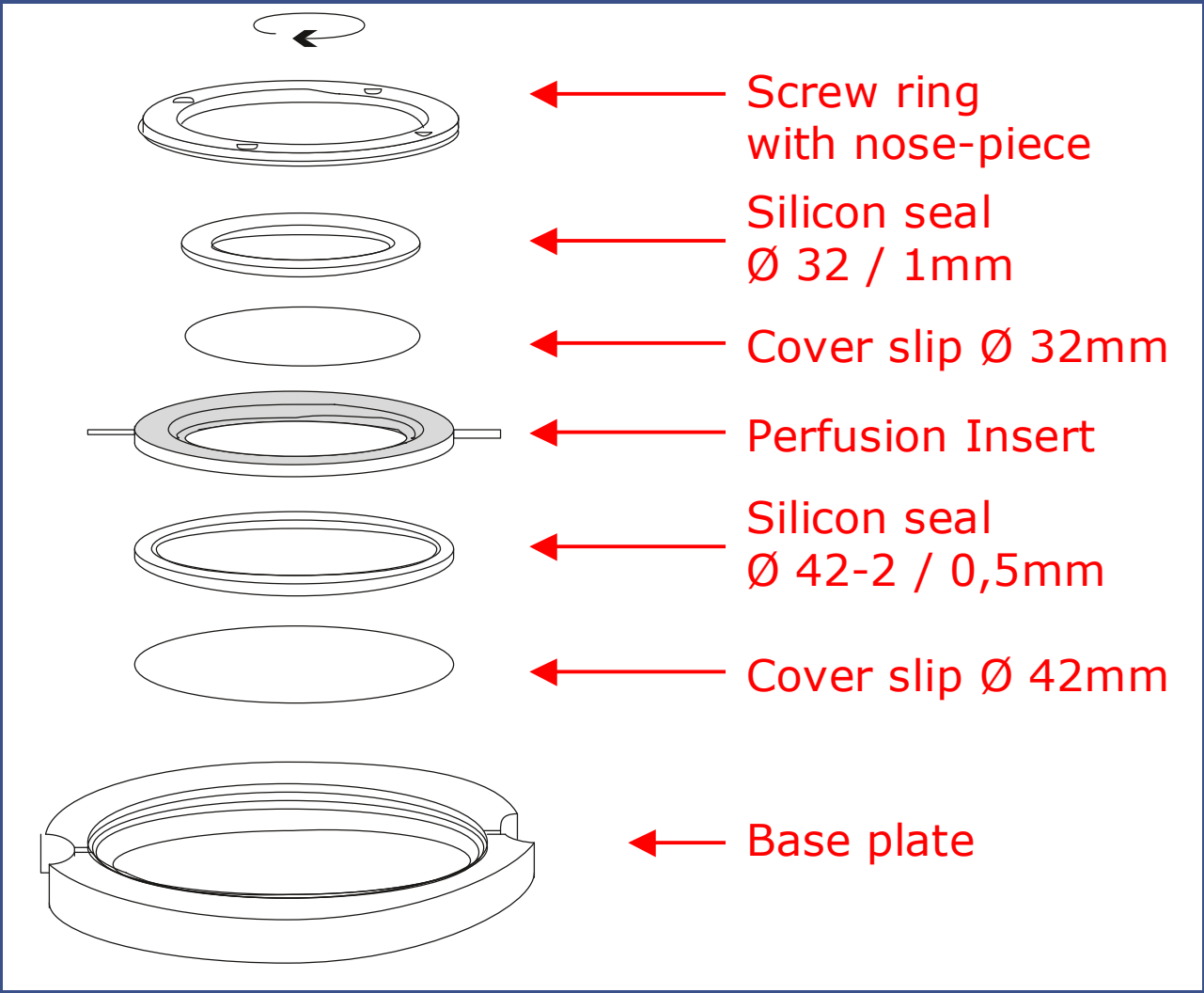
2) POC-R2 Closed Cultivation

Adding/Exchange of Cells and Media



Cultivation in POC-R2 and POCmini

3) POC-R2 Closed Perfusion

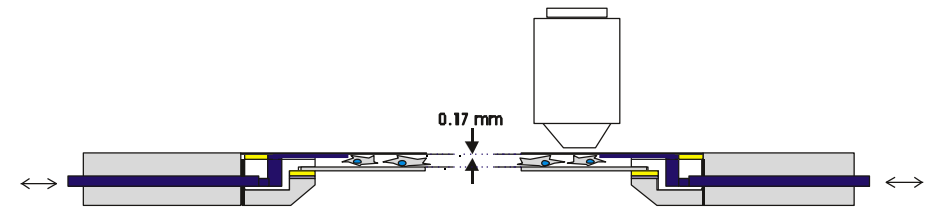
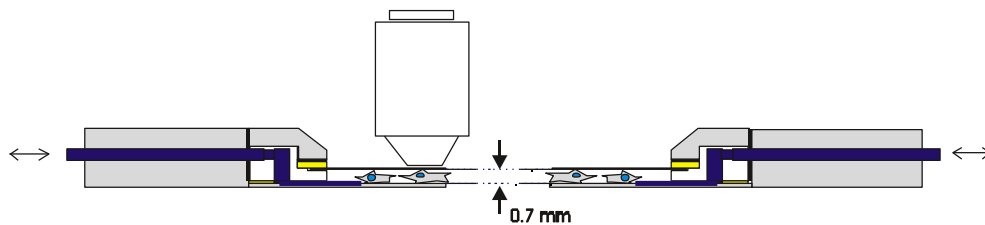


Cultivation in POC-R2 and POCmini

3) POC-R2 Closed Perfusion

Reasons for this cultivation type:

- No disturbing Meniscus
- No evaporation
- Chamber can be inverted
→ Cultivation on both cover slips possible
- Observation also on upright microscopes
- Exchange of media and adding of test substances during observation

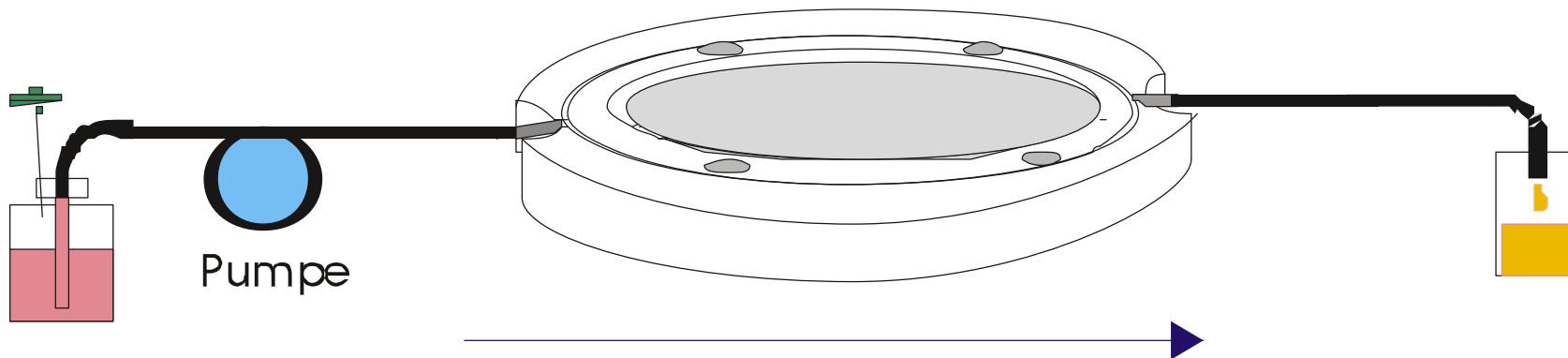


Cultivation in POC-R2 and POCmini

3) POC-R2 Closed Perfusion

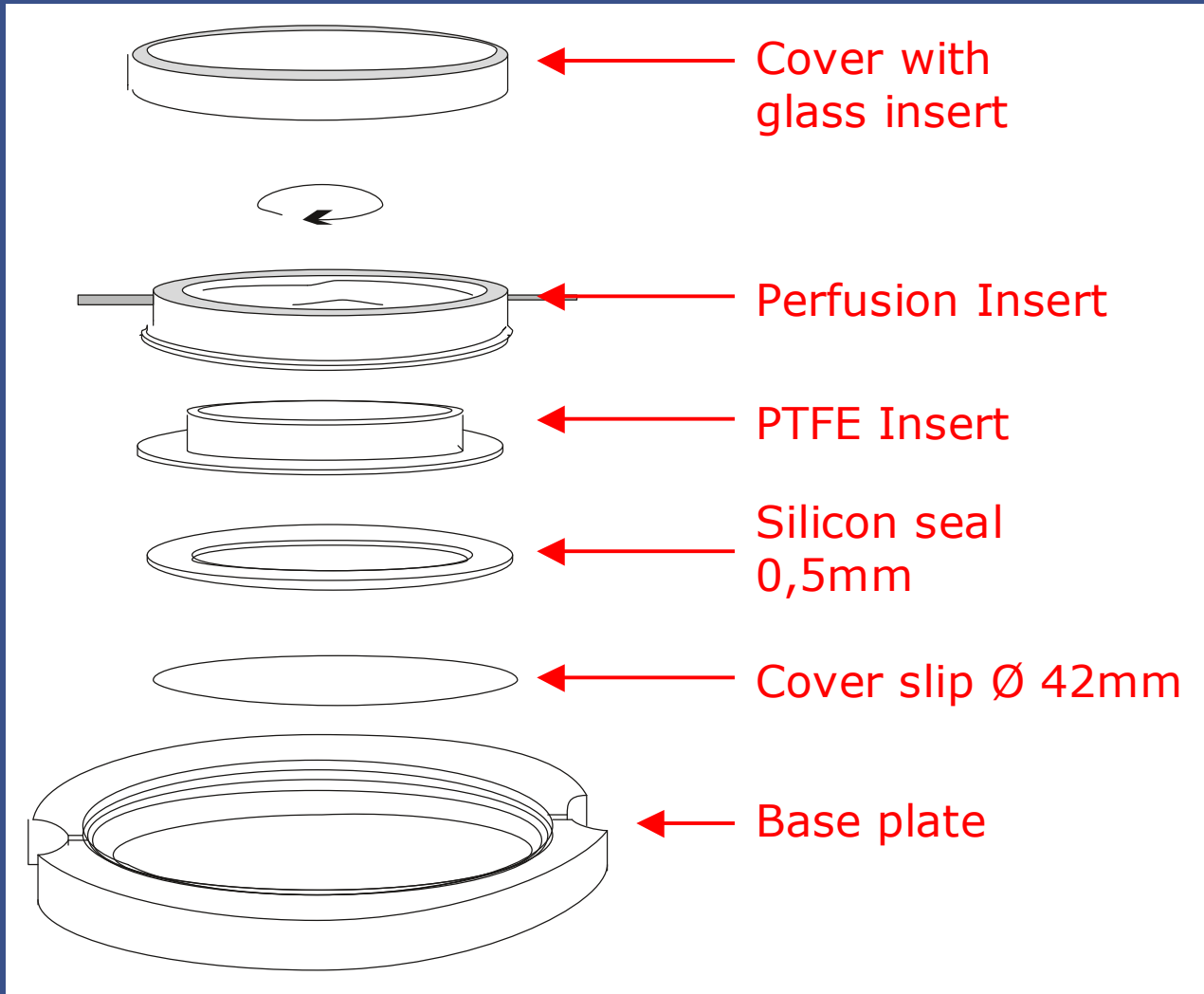
Operation of Perfusion:

- Sterile Silicon tubing in pump \varnothing 0.9-1.0mm
- Flow rate optimum: 0.1 up to 0.25 ml/h
- Perfusion with push



Cultivation in POC-R2 and POCmini

4) POC-R2 Open Perfusion (Additional Perfusion adapter)

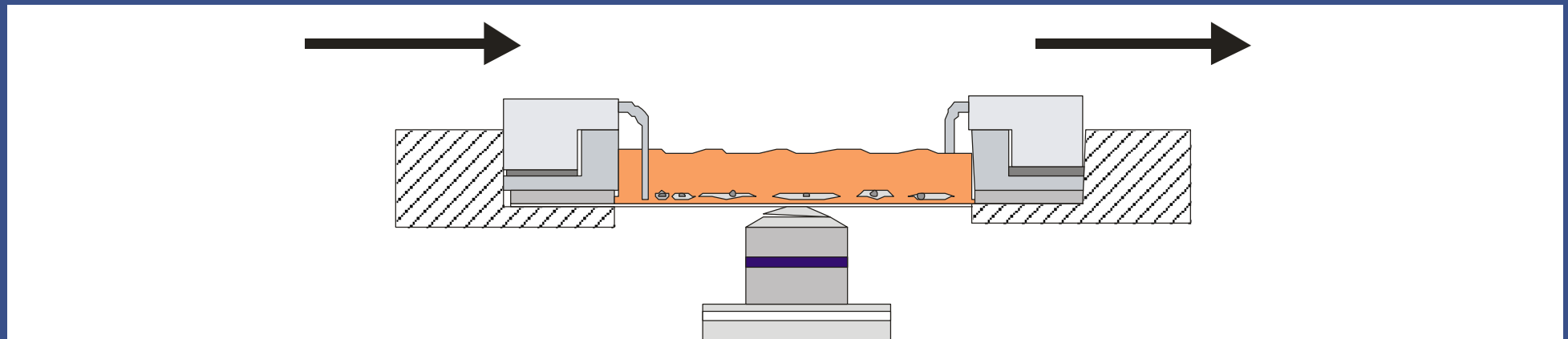


Cultivation in POC-R2 and POCmini

4) POC-R2 Open Perfusion (Additional Perfusion adapter)

Reasons for this cultivation type:

- Quick access to cells and media
- Work as usual
- Micromanipulation (low profile insert)
- Exchange of media and adding of test substances during observation

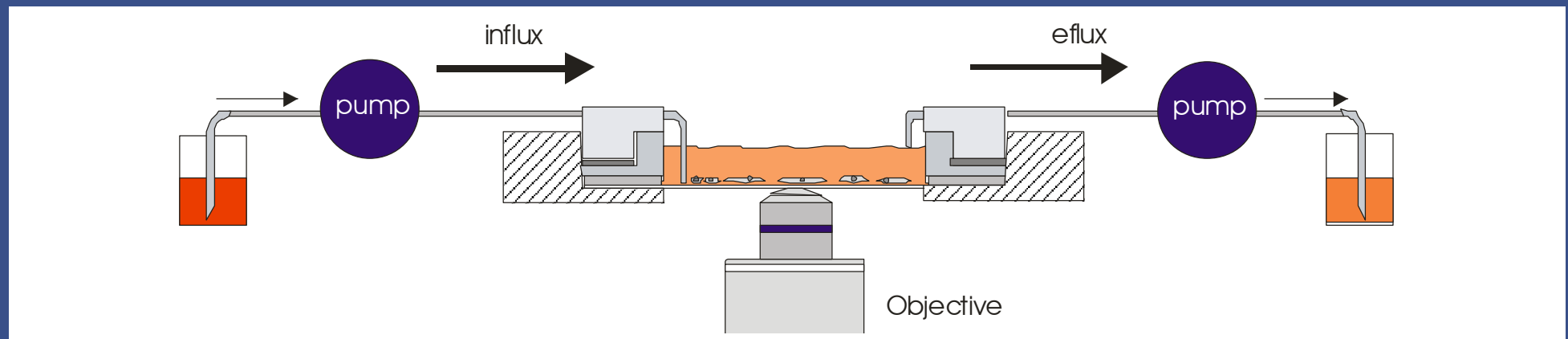


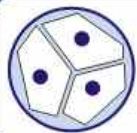
Cultivation in POC-R2 and POCmini

4) POC-R2 Open Perfusion (Additional Perfusion adapter)

Operation of Perfusion:

- Sterile silicone tubing
in pump inflow 0.7mm
 outflow 1.0mm
- Flow rate optimum 0.1 up to 0.25 ml/h
- Perfusion with push and pull





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23.01.2018