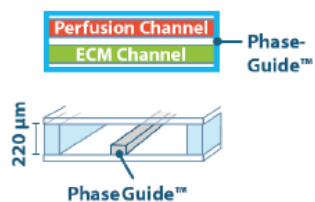
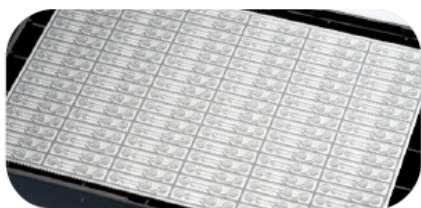
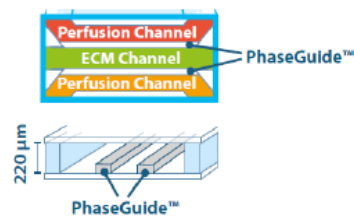
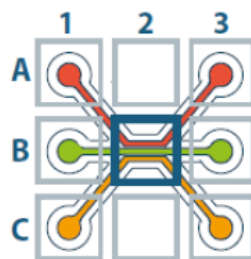




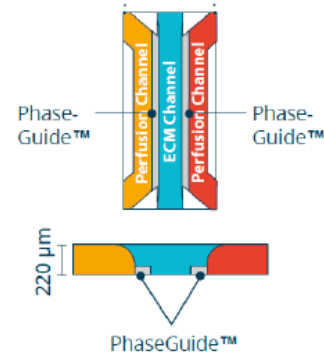
Organoplate®  
2-lane 96



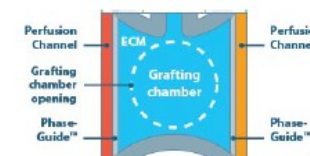
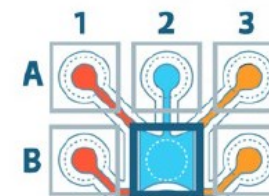
Organoplate®  
3-lane 40



Organoplate®  
3-lane 64



Organoplate®  
Graft



## ◆ 介紹





### 器官晶片

#### (organ-on-a-chip):

幹細胞經過分化為多細胞型態，具有器官應有之生理功能，建構三維微流控晶片，可模擬人體器官活動或生理反應之微型實驗室，具微流體之優點且可望較趨近於臨床試驗之結果

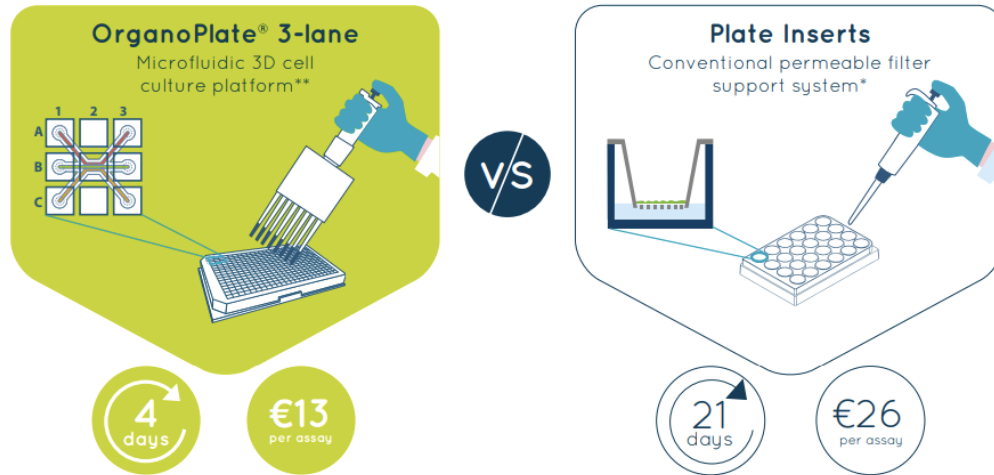
## OrganoPlate® family

### Properties

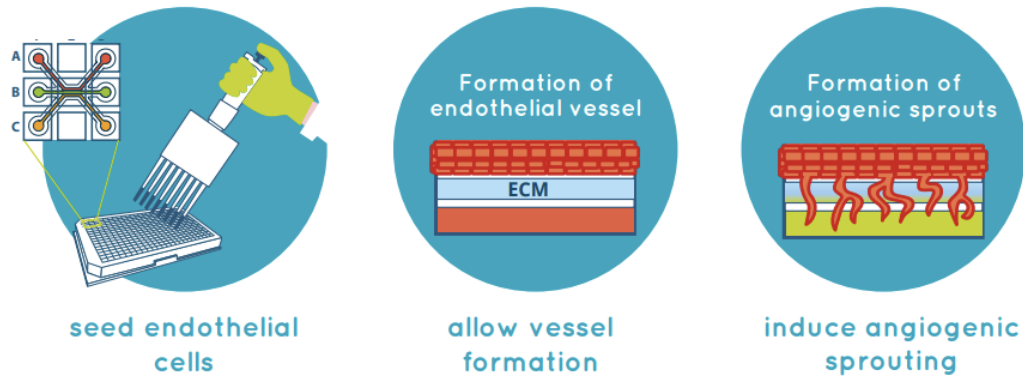
|                                   | <br>2-lane 96 | <br>3-lane 40 | <br>3-lane 64 | <br>Graft |
|-----------------------------------|--|--|--|--|
| Tissue culture chips              | 96   | 40   | 64   | 64   |
| Apical access                     | ✓  | ✓  | ✓  | ✓  |
| Basolateral access                | —  | ✓  | ✓  | ✓  |
| Possible perfusion lanes          | 1  | 2  | 2  | 2  |
| Compound transcytosis             | —  | ✓  | ✓  | ✓  |
| Tubule or in-gel co-culture       | ✓  | ✓  | ✓  | ✓  |
| 3D cell migration                 | —  | ✓  | ✓  | ✓  |
| Angiogenesis                      | —  | ✓  | ✓  | ✓  |
| Vascularization network formation | —  | —  | —  | ✓  |
| OrganoTEER® compatibility         | —  | ✓  | ✓  | —  |
| Ease of automation & scalability  | ✓  | ✓  | ✓✓   | ✓✓   |
| Compound gradients                | —  | ✓  | ✓  | ✓  |

◆ 與insert方式比較

Building *in vitro* Intestinal Permeability Models



3 Steps to Build Your Own Model



4 Reasons for Using the OrganoPlate®:

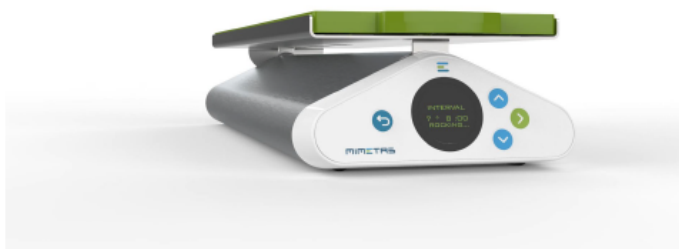


|                                  | OrganoPlate® 3-lane | Plate Inserts |
|----------------------------------|---------------------|---------------|
| • 3D tubule                      | ✓                   | ×             |
| • membrane-free                  | ✓                   | ×             |
| • lumen formation                | ✓                   | ×             |
| • perfusion / flow               | ✓                   | ×             |
| • low reagents and cell usage*** | ✓                   | ×             |
| • live/optical imaging           | ✓                   | ×             |
| • fluorescent imaging            | ✓                   | ✓             |
| • automation compatible          | ✓                   | ✓             |



## OrganoFlow®

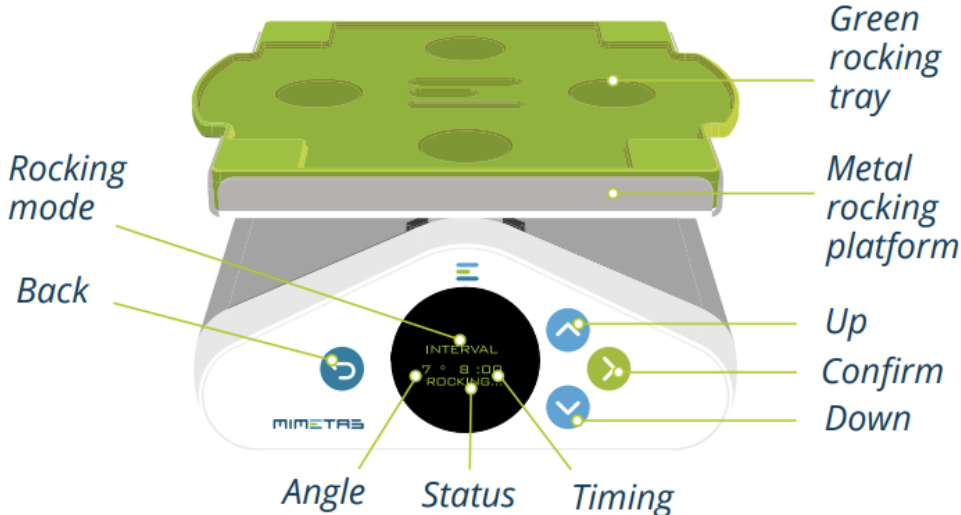
Drive precisely-controlled perfusion flow  
in the OrganoPlate® platform



## OrganoTEER®

High-throughput automated TEER  
measurement platform





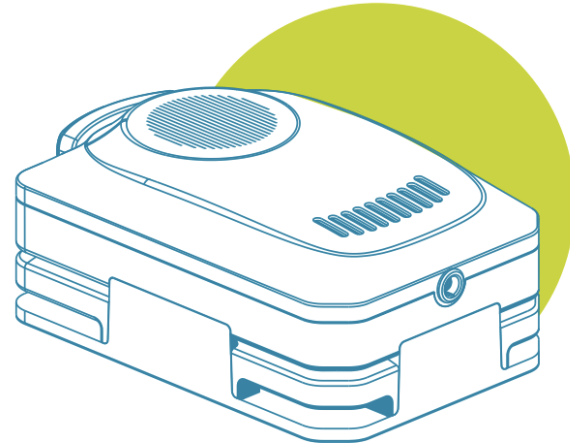
◆ 特色

- ✓ 間隔搖擺
- ✓ 最佳的時間和傾斜角度設置
- ✓ 適用於標準組織培養箱
- ✓ 一次可使用多個類器官晶片盤

|                       | OrganoFlow® S                                  | OrganoFlow® L    |
|-----------------------|--|------------------|
| Dimensions LxWxH (cm) | 16x16x8  | 45x16x8          |
| Weight (kg)           | 1.3  | 2.4              |
| Power consumption (W) | 1.7  | 4.7              |
| Maximum load          | 4 OrganoPlates®                                | 16 OrganoPlates® |
| Maximum load (kg)     | 0.4  | 1.6              |
| Sliding Tray          | No   | Yes              |
| IP rating housing     | IP54   |                  |
| Tilt angle            | 0° to +25°                                     |                  |
| Modes of operation    | Interval or continuous                         |                  |
| Tilting interval      | 5s - 999 min                                   |                  |
| Operating conditions  | Up to 40°C (104°F) and 95% RH (non-condensing) |                  |

## OrganoTEER®

High-throughput automated TEER measurement platform



### ◆ 特色

- ✓ 一分鐘內一次測量 40/64 個sample
- ✓ 流動條件下評估屏障功能，不受裝置結構的干擾
- ✓ 保持細胞完好無損
- ✓ 可長期延時檢測
- ✓ 可應用於腸道、血腦屏障、腎臟等多種體外內皮和上皮屏障model
- ✓ 設備和軟體系統直觀，易於維護。



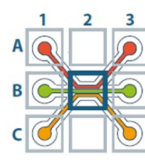
Measurement module

Electrode board

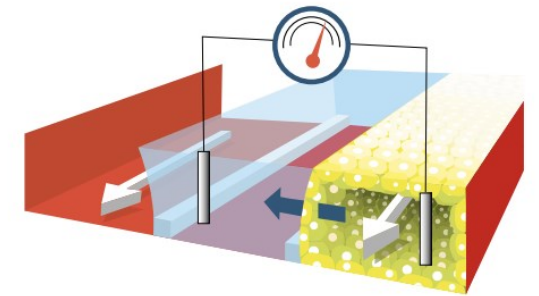
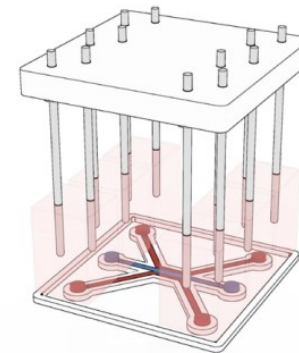
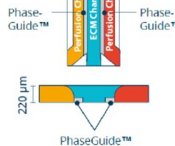
The OrganoPlate

Plate holder

### OrganoPlate® 3-lane 40



### OrganoPlate® 3-lane 64



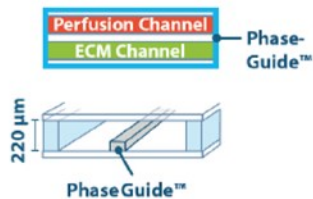
**TEER 測量概念:** 透過在細胞單層兩側放置的電極上施加電流並以測量出的電壓計算屏障的電阻。



# OrganoStart package 類器官晶片組

## OrganoPlate®

### 2-lane 96



5x OrganoPlate® 2-lane 96



OrganoFlow®S



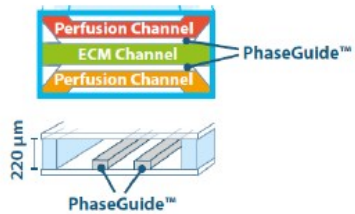
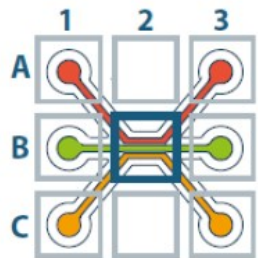
E-learning Module  
Including key reagents\*



Consultancy  
by Field Application Specialist

OrganoPlate®

3-lane 40



5x OrganoPlate® 3-lane 40



OrganoFlow®S



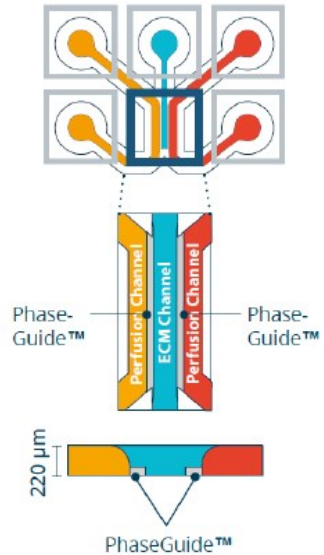
E-learning Module  
Including key reagents\*



Consultancy  
by Field Application Specialist

## OrganoPlate®

3-lane 64



5x OrganoPlate® 3-lane 64



OrganoFlow® S



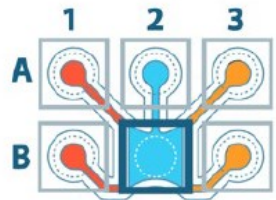
**E-learning Module**  
Including key reagents\*



**Consultancy**  
by Field Application Specialist

OrganoPlate®

Graft



3x OrganoPlate® Graft



OrganoFlow® S



E-learning Module  
Including key reagents\*



Consultancy  
by Field Application Specialist