



## **Intestinal Organoids Working Group**

### **Masterclass: Patient-Derived Intestinal Organoids (PDIOs) for Cystic Fibrosis Research**

#### **Overview**

This masterclass provides in-depth theoretical and practical training in the use of patient-derived intestinal organoids (PDIOs) for cystic fibrosis (CF) research, with a strong emphasis on disease relevance and translational potential. The course connects basic science, clinical CF research, and organoid technology.

#### **When & Where**

23/09- 25/09 2026

Utrecht, The Netherland & Ombion, Utrecht

Costs: A fee up to a 200 euros, including 3 overnight stays. Help with finding travel grants can be provided.

#### **Target Audience**

Open for PhD candidates, postdoctoral researchers and other early-career clinicians/scientists. The masterclass explicitly welcomes researchers outside CF who wish to apply their expertise to CF-related questions and participants aiming to develop or strengthen a CF-focused research line.

8–15 participants

#### **Applications & Selection**

Applications will include:

- Short motivation letter
- Brief description of current research and intended use of PDIOs

Selection will aim for:

- High motivation
- Clear relevance to CF and/or organoid research
- A balanced mix of backgrounds

#### **Questions**

Please contact course coordinator Sacha Spelier, [a.spelier-2@umcutrecht.nl](mailto:a.spelier-2@umcutrecht.nl)



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### **Preliminary program**

#### Tuesday 22/09

Arrival throughout the day.

#### Wednesday 23/09 – CF & Organoid Foundations

- 09:00–10:00** Welcome, personal introductions, course overview
- 10:00–10:30** CF as a multi-organ disease & CFTR biology
- 10:30–10:45** Break
- 10:45–12:00** CF PDIOs 101
- 12:00–12:45** Lunch
- 13:00–14:00** PDIO culturing 101 basics (establishment, maintenance, passaging)
- 14:15–16:45** Lab: PDIO basics
- 16:45–17:30** Q&A, troubleshooting, open discussion

#### Thursday 24/09 – Functional Assays & Model Scope

- 09:00–10:30** CFTR functional assays: FIS, strengths & translational science (diagnostics, EMA)
- 10:30–12:30** Lab: FIS plating
- 12.30–13.00** Lunch
- 13:00–14:00** What PDIOs cannot do yet/other CFTR functional assays than FIS
- 14:00–15:30** 2D vs 3D models, airway vs intestinal systems
- 15:30–16:00**: Break
- 16:00–17:30** Experimental design own experiments

Dinner together

#### Friday 25/09 – Translation & Broader Perspectives

- 09:00–11:00** Lab: FIS analysis
- 11:00–12:00** Biobanking, ethics
- 12:00–12:45** Lunch
- 13:00–14:30** Pitches own experiments
- 14:30–14:45** Break
- 14:45–16:00** Future directions: automation, standardization, AI
- 16:00–17:00** Wrap-up, take-home messages