Workshop on 3D cell culture models: *lung, intestine and skin tissues*

Adolphe Merkle Institute, Fribourg, Switzerland **July 8-9, 2019**

3D Cell Culture

3D culture systems present an important advancement in cell culture techniques. Constructed from **cell lines or primary cells**, the 3D models simulate *in vivo* situations and present invaluable systems for **fundamental** and **applicative cell biology research** *in vitro*.

Target group

Are you experienced in basic 2D cell culture and looking for a solid basis and hands-on experience in 3D cell culture?

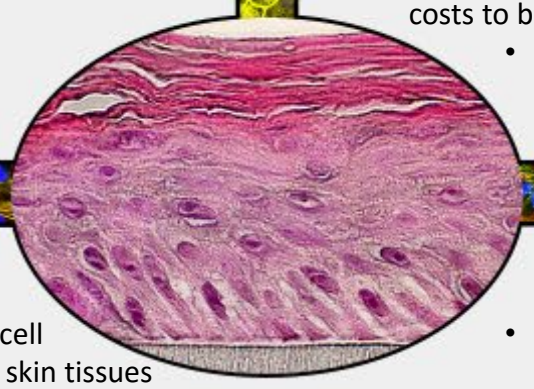
Join our two-day workshop on 3D cell culture models!

Content and Objectives

- Presentations on multicellular 3D models and their characterisation from an academic and industrial point of view.
- Receive hands-on training in the assembly of lung, intestine and skin models.

Application

- **Free registration. Register here until June 20, 2019** (required).
- Lunch, dinner, travel and accommodation costs to be covered by the applicants.
- **Active participation:** Abstract submission (250 words) for oral presentations.



Theoretical part

- Assembly of multicellular 3D cell models of lung, intestine and skin tissues
- Tissues include both primary cells and cell lines.
- Culture at Air-Liquid interface.
- Model characterisation: morphology, barrier integrity and biological responses.
- Hazard studies with 3D cell models, including exposures to particles.

Practical part

- Isolation and differentiation of primary immune cell.
- Seeding of 3D cell culture models.
- Model characterisation includes:
  - Microscopy: phase contrast and confocal laser scanning microscope, including life cell imaging.
  - Measuring barrier integrity with TEER.
  - Exposure techniques at Air-Liquid interface.

Speakers

- **Prof. Dr. Barbara Rothen-Rutishauser**, the establisher of an advanced human 3D lung model, expert in application of 3D cell models for hazard assessment *in vitro.*
- **Lonza Pharma and Biotech - Bioscience Solutions**, presentation and practical workshop on 'Construction of a Full Thickness Skin Model Using RAFT™ 3D Cell Culture System'.
- **Post-doctoral scientists and PhD students**, experienced in advanced cell culture techniques.

Location

The workshop will be held in **Fribourg**, a picturesque medieval town in western **Switzerland**, at the **Adolphe Merkle Institute**.
For more information visit:
https://www.ami.swiss/

Day 1: July 8, 2019

9.00-9.30	Arrival and registration (coffee)
10.00-11.30	Theoretical part Prof. Dr. B. Rothen-Rutishauser
11.30-13.00	Lunch and tour of the institute
13.00-14.00	Presentations from participants
14.00-16.30	Practical part: hands-on training in cell culture laboratory
16.30-17.30	Realistic exposures: lung model
19.00-21.00	Dinner

Day 2: July 9, 2019

9.00-12.30	Practical part: hands-on training in cell culture laboratory
12.30-13.30	Lunch
13.30-16.00	Practical part: hands-on training in cell culture laboratory
16.00-17.00	Discussion: Troubleshooting in cell culture and characterisation methods, questions of audience.

The workshop is supported by the Adolphe Merkle Foundation and by two European Union's Horizon 2020 research and innovation programmes, under the Marie Skłodowska-Curie grant agreement No 765602 (www.citycare-itn.eu) and under grant agreement No 760813 (www.patrols-h2020.eu).