





Workshop on 3D cell culture models:

Lung, intestine and skin tissues

Organized by the PATROLS and CITYCARE consortia

Adolphe Merkle Institute, Fribourg, Switzerland

8-9th July, 2019











Theoretical part

Introduction		
Application of advanced 3D co-culture models	Prof. Dr. B. Rothen-Rutishauser, Adolphe Merkle Institute, Switzerland	
Lung models		
A dynamic in vitro model approach towards deducing the hazard of nanomaterial exposure to the alveolar epithelial barrier	Dr. K. Meldrum, Swansea University, United Kingdom	
<i>In vitro</i> model for the prediction of respiratory sensitization	Dr. S. Cambier, LIST, ERIN, Belvaux, Luxembourg	
Engineering of a dynamic model of the alveolar interface for the study of aerosol deposition	R. Nossa, University of Pisa, Italy	
Skin models		
Construction of a Full Thickness Skin Model Using RAFT™ 3D Cell Culture System	Dr. D. Confalonieri, LonzaPharma and Biotech-Bioscience Solutions, Germany	
Reconstructed human skin equivalents- past, present and future	Dr. H. Kandarova, Centre of Experimental Medicine SAS, Bratislava, Slovakia	

Practical part

Module I	Skin	Harvesting, seeding and imaging of 3D skin model
Module II	Lung and intestine	Seeding of triple cell co-cultures and live cell staining and imaging
Module III	Realistic exposures	Model exposures using VITROCELL [®] Cloud and DALI Bioreactor
Module IV	Blood isolation	Isolation of primary monocytes







Day 1: Monday, 8th of July 2019

8.45 - 9.15	Arrival, registration and coffee	
9.15-12.00	Theoretical part	
9.15-9.45	Application of advanced 3D co-culture models, Prof. Dr. B. Rothen- Rutishauser, Adolphe Merkle Institute, Switzerland	
9.45-10.00	A dynamic <i>in vitro</i> model approach towards deducing the hazard of nanomaterial exposure to the alveolar epithelial barrier, Dr. K. Meldrum, Swansea University, United Kingdom	
10.00-10.15	<i>In vitro</i> model for the prediction of respiratory sensitization, Dr. S. Cambier, LIST, ERIN, Belvaux, Luxembourg	
10.15-10.30	Engineering of a dynamic model of the alveolar interface for the study of aerosol deposition, R. Nossa, University of Pisa, Italy	
10.30-10.45	Break	
10.45-11.20	Construction of a Full Thickness Skin Model Using RAFT™ 3D Cell Culture System, Dr. D. Confalonieri, LonzaPharma and Biotech-Bioscience Solutions, Germany	
11.20-12.00	Reconstructed human skin equivalents- past, present and future, Dr. H. Kandarova, Centre of Experimental Medicine SAS, Bratislava, Slovakia	
12.00-13.00	Lunch	
13.00-16.00	Practical part	
13.00-16.00 Group A	Module I: Skin	
13.00-16.00 Group B	Module II: Lung and intestine	
16.30-17.30		
16.30-17.00	Module III: Realistic exposures with VITROCELL [®] Cloud and DALI Bioreactor	
Group A		
17.00-17.30		
Group B		
19.00-21.00	Dinner in Fribourg	

Day 2: Tuesday, 9th of July 2019

8.30-12.00		
8.30-9.00	Preparation for blood isolation	
Group A and B		
9.00-12.00	Module IV: Blood isolation	
Group A		
9.00-12.00	Module I: Skin	
Group B		
12.00-13.00	Lunch	
13.00-16.00		
13.00-16.00	Module IV: Blood isolation	
Group B		
13.00-16.00	Module II: Lung and intestine	
Group A		
16.00-16.30		
Group A and B	Live cell imaging	
16.30-17.00	Closing remarks	







Safety

Please wear long trousers and closed shoes in the lab for safety purposes. Lab goggles will be provided.

Dinner

Lunch and dinner is not included in this workshop. Please bring cash (Swiss Franc – CHF) for lunch and dinner. If you have any dietary restriction, please let us know.

Contact information

For questions regarding the workshop please send an email to <u>amieuworkshop@gmail.com</u>.

Venue

Adolphe Merkle Institute University of Fribourg Chemin des Verdiers 4 CH-1700 Fribourg +41 26 300 9254 info-ami@unifr.ch www.ami.swiss/en/aboutus/contact/



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Lonza



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