

Biointerfaces International Seminar (BIS), ETH Zurich, Switzerland, Sept 12, 2022			
Focus of Seminar and Conference (1 of 3 days): Organoids, Organ-on-Chip, Lab-on-Chip, 3D Imaging, Verification and Validation			
Time slots	Topic / Titles (to be confirmed/adjusted)	Lecturers * confirmed speaker at BIC-2022 Confirmed BIS Lecturer	Chairs Confirmed Chairs (green)
09:00 - 09:10	Welcome & Introduction	Barbara Rothen-Rutishauser , Adolphe Merkle Institute, University of Fribourg, CH	
Opportunities and limitations of <i>in vitro</i> – <i>in vivo</i> assays			
09:10 - 09:50	Lecture 1 (Intro, Overview) <i>21st Century Cell Culture for 21st Century Research</i>	Thomas Hartung* , Johns Hopkins Bloomberg School of Public Health, Baltimore, US	Barbara Rothen-Rutishauser , Adolphe Merkle Institute, University of Fribourg, CH
09:50 - 10:20	Pro Con Debate “ <i>In vitro assays will eventually replace all academic and industrial in vivo (animal) tests for drug development</i> ”.	Pro: Ivan Martin* , University of Basel, CH Con: David Grainger* , The University of Utah, US	Markus Rimann , ZHAW, TEDD-Network, CH
10:20 - 10:50	<i>Break</i>		
Tissue engineering and biomaterials			
10.50 - 11:30	Lecture 2 Title	Francesca Santoro* , RWTH Aachen and Forschungszentrum Juelich, DE	Janos Vörös , Dep. of Inform.Technol. Electrical Eng., ETH Zurich, CH
11:30 - 12:10	Lecture 3 Title	Andrés Garcia* , School of Mechanical Engineering, Georgia Tech, US	Olivier Frey , Head of Technologies & Platforms and Project Manager of Microphysiological Systems, InSphero, Zurich, CH
12:10 - 13:40	Lunch and More – Ask Anything	H. Michelle Grandin , Scientific Consultant BioMaterials & Medical Devices, Instructor at UCSD Extension, US Sally McArthur* , Faculty of Science, Engineering & Technology, Swinburne University of Technology, Melbourne, AU	Two senior, experienced persons at each table with (young) participants to ask any question (e.g., related to career planning, publication, collaborations, funding, life/work balance, etc.) Details: Appendix 1 Need for a larger number of experienced persons (later).

Characterisation in 3D and organoid technology			
13:40 – 14:20	Lecture 4 Title	Sally McArthur* , Faculty of Science, Engineering & Technology, Swinburne University of Technology, Melbourne, AU	David Grainger* , The University of Utah, US
14:20 – 15:00	Lecture 5 Title	TBD	Catarina Brito* , Advanced Cell Models Lab, Animal Cell Technology Unit, iBET & ITQB-NOVA, Lisboa, PT
15:00 – 15:30	Round table “How will organoid technology shape our societal future”	Sally McArthur* , Adrian Roth* , Janos Vörös , Catarina Brito*	Falko Schlottig , FHNW, Basel, CH
15:30 – 16:00	<i>Break</i>		
Cell analysis and development of standard protocols			
16:00 – 16:40	Lecture 6 <i>Development of Standard Operating Protocols (SOPs) for Pre-Validation of in vitro Assays</i>	Barbara Rothen-Rutishauser , Adolphe Merkle Institute, University of Fribourg, CH	Cornelia Kasper* , BOKU, Department for Biotechnology, University of Natural Resources and Life Sciences, Vienna (BOKU), AU
16:40– 17:10	Lecture 7 <i>Comparable in vitro measurements</i>	Matthias Rösslein , EMPA, St Gallen, CH	Núria Montserrat Pulido* , Institute for Bioengineering of Catalonia, Barcelona, SP
17:10 – 18:10	Lost in Translation: hurdles and opportunities in the translation of scientific discovery to clinics and market - including a pitch development workshop	Eliav Haskal , Innovation Manager, NCCR Bio-Inspired Materials, University of Fribourg, Fribourg, CH Sally McArthur* , Faculty of Science, Engineering & Technology, Swinburne University of Technology, Melbourne, AU	Details: Appendix 2
	WrapUp	Barbara Rothen-Rutishauser* , Adolphe Merkle Institute, University of Fribourg, CH Markus Rimann , ZHAW, TEDD-Network, CH	