The 3 Dimensions of Organ-on-a-Chip

Symposium, October 31st 2016, 10.00-17.00 Beatrix Building, Utrecht

ORGAN FUNCTION ON A CHIP

Biology role of Technologies

Organ-on-a-chip technology is not just one technology; it is about living cells and supporting technologies mimicking parts of the human physiology that has applications not only the pharmaceutical industry but also in the diagnostic, food, cosmetic and chemical industry. Human biology, technology and applications; the three dimensions of organ-on-a-chip. This symposium will show the TNO approach on combining biology and technology into applications and it will address these three dimensions in several examples.

> In vitro research

Clinical research

Translational models

TNO innovation for life

Personalised clinical research

Program

9.30-10.00	Registration and coffee	
10.00-10.15	Welcome, C. Krul, TNO	i †††
10.15-10.30	Introduction, R. Ostendorf , TNO	
	BIOLOGY Organ on-a-chip	
10.30-10.50	Lung+ microbiome, B. Keijser, TNO	
10.50-11.10	NASH and diabetes, R. Kleemann, TNO	
11.10-11.30	Organoids and IBD, G.M. Fuhler , Erasmus	
11.30-12.00	Title to be announced, C. Bertinetti, Roche	
12.00-13.00	Lunch	
	TECHNOLOGIES	
13.00-13.20	Human stem cell technologies, A. Asplund, Takara BioEurope	
13.20-13.40	Ring resonators, B. de Boer, TNO	
13.40-14.00	Manufacturing villi scaffolds, A. Storm, TNO	
14.00-14.20	hiPSC-derived cardiomyocyte technology, M. Vlaming, Pluriomics	
14.20-14.40	AFM , M. van der Heiden, TNO	
14.40-15.00	Coffee break and networking	
	APPLICATIONS	
15.00-15.20	Inhalation exposure, I. Kooter, TNO	
15.20-15.40	Liver functional pathways on a chip, R. Hanemaaijer, TNO	
15.40-15.00	InTESTine, Organoids , JP. ten Klooster, HU, E. van de Steeg, TNO	
16.00-16.05	Closing remarks	
16 05-17 00	Informal aet together drinks	