08:45 - 09:15  Registration & coffee
09:15 - 09:20  Welcome

**VISUALIZING THE PROCESSES OF LIFE**  Chair: Chris Guerin

09:20 - 09:55  Visualizing Chromatin Organization with Super-Resolution Microscopy
*Maria Aurelia Ricci, The Institute of Photonic Sciences, ES*

09:55 - 10:20  Deeper and with more Meaning: Microscopy at Leica Microsystems
*Julian Burke, CSO Leica Microsystems Group, UK*

10:20 - 10:45  CODIM, a New Super Resolution Microscopy Module
*Gabriel Sirat, CTO BioAxial, FR*

10:45 - 11:15  Coffee break

11:15 - 11:50  Protein turnover at synapses: Imaging a synapse-specific branch of autophagy that is defective in Parkinson’s disease
*Patrik Verstreken, VIB Center for the Biology of Disease, KU Leuven, BE*

11:50 - 11:55  Isolating single cells Punch by Punch
Sponsor talk: *Arjan Tibbe, CEO VyCAP*

11:55 - 12:20  Advanced Microscopy Platforms as the Key to Solve Challenging Biological Applications
*Pablo Hernandez-Varas, European Product Specialist, Nikon Instruments, NL*

12:30 - 13:30  Lunch
13:30 - 14:30  Poster session

**IPS, REPROGRAMMING AND ORGANOIDs**  Chair: Geert Berx

09:20 - 09:55  Molecular Mechanisms for Assembling and Resolving Human Naive Pluripotency
*Jacob Hanna, Weizmann Institute of Science, IL*

09:55 - 10:30  High-Efficiency Cellular Reprogramming with Microfluidics
*Nicola Elvassore, University of Padova, IT*

10:30 - 10:55  Human organ-on-a-chip tissue models for predictive testing of therapeutic drugs
*Jos Joore, CEO, Mimetas, NL*

10:45 - 11:15  Coffee break

11:15 - 11:50  Lgr5 Stem Cell Based Organoids in Human Disease
*Hans Clevers, Hubrecht Institute, NL*

11:50 - 11:55  CRISPR/Cas9 gene-edited cell lines as valuable research tools
Sponsor talk: *Thomas Moser, Vice President, Horizon Discovery*

11:55 - 12:30  Human Pluripotent Stem Cells in Understanding Genetic Cardiovascular Disease and Effects of Drugs
*Christine L. Mummery, Leiden University Medical Center, NL*

12:30 - 13:30  Lunch
13:30 - 14:30  Poster session
IMAGING AND MICROSCOPY TECHNOLOGIES  
Chair: Sebastian Munck

14:30 - 15:05  Scalable High-Dimensional Phenotyping of Intact Biological Systems  
Kwanghun Chung, MIT, US

15:05 - 15:30  Airyscan goes Fast: an innovative confocal imaging technology allows high resolution, high speed and low noise - simultaneously  
Uroš Kržič, Senior Application Consultant, Carl Zeiss Microscopy, DE

15:30 - 15:55  Three-Dimensional Multicolor Super-Resolution Microscopy  
Manasa Gudheti, Applications Scientist, Bruker, US

16:00 - 16:30  Coffee break

ENGINEERING CELLS TO TISSUES AND ORGANS  
Chair: Mark Veugelers

14:30 - 15:05  Tissue matrix derived biomaterials: From high-through put screening tools to biomimetic organ replacements.  
Sven Sommerfeld, Johns Hopkins, US

15:05 - 15:30  3D Bioprinting of Human Soft Tissues: A New Frontier in Patient-specific Tissue Engineering  
Héctor Martínez, CTO, Cellink, SE

15:30 - 15:55  Potential Impact of Combining Organ Equivalents using the Multi-Organ-Chip Technology  
Juliane Hübner, Program manager, TissUse, DE

16:00 - 16:30  Coffee break

ACADEMIC PLENARY SESSION  
Chair: Halina Novak

16:30 - 17:05  Nanoscale Construction and Imaging with DNA  
Peng Yin, Wyss Institute at Harvard University, US

17:05 - 17:40  Imaging the 3D Bone Marrow to Dissect the HSC Niche  
Paul Frenette, Albert Einstein, College of Medicine, US

17:45 - 18:45  Reception
08:45 - 09:20  Welcome coffee

CELL MANIPULATION TECHNOLOGIES
Chair: Mark Veugelers

09:20 - 09:55  Delivery of Ultra Large Sized Cargo into Mammalian Cells
Eric Pei Yu Chio, UCLA, US

09:55 - 10:20  Enabling Individual Identification of the Tumor Genome Through Rare Cell Isolation and Growth
Mark White, Director, BioFoundry Applications at Berkeley Lights Inc. US

10:20 - 10:45  Multi-Protein Photopatterning for a Customized Control of the Cell Microenvironment
Luc Talini, CEO Alvéole, FR

10:45 - 11:15  Coffee break

11:15 - 11:50  Controlling Subcellular Organization and Dynamics Using Chemogenetics and Optogenetics
Lukas Kapitein, Utrecht University, NL

11:50 - 12:15  Re-inventing the Micropipette
Michael Gabi, CTO Cytosurge, CH

12:30 - 13:15  Workshop: Advanced bioreactor technologies for growing and monitoring novel cell lines: Fixed Bed Bioreactor for virus, CarT, Exosomes,...to Multi-Plate Bioreactor for expanding stem cells
Renaud Balsse, Bioreactor specialist, Pall Life Sciences
Philip Mathuis, CEO, Ovizio Imaging Systems

12:15 - 13:30  Lunch

13:30 - 14:30  Poster session

DRUG DISCOVERY
Chair: Jérôme Van Biervliet

09:20 - 09:55  Sequential Drug Treatment as a Novel Strategy in The Treatment of Cancer
René Bernards, NKI, NL

09:55 - 10:20  Human clinical trials in mice: Modeling inter-patient response heterogeneity in PDXs
Juliet Williams, Head of Oncology Pharmacology Novartis, US

10:20 - 10:45  Tracking drug action in living cells by Chemoproteomics
Gerard Drewes, Head of Science, GSK Cellzome, DE

10:45 - 11:15  Coffee break

11:15 - 11:40  Sense & Sensitivity – Leveraging Advances in HCS for Better Drug Discovery
Jürgen Müller, Senior R&D Director, Perkin-Elmer, EU

11:40 - 11:45  Advanced bioreactor technology for optimized cell culture productivity with inline cell growth imaging
Sponsor talk: Renaud Balsse, Bioreactor specialist, Pall Life Sciences

11:45 - 12:10  Application of high-content imaging to the development and validation of engineered cell models
Nick Dolman, Thermo Fisher, NL

12:15 - 13:30  Lunch

13:30 - 14:30  Poster session
### IN VIVO MODELS & ASSAYS

**Chair: Geert Berx**

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>14:30 - 15:05</td>
<td>Intravital Imaging of Stem Cell and Cancer Cell Plasticity</td>
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<td><strong>Jacco van Rheenen</strong>, Hubrecht Institute, NL</td>
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<td>15:05 - 15:30</td>
<td>From syngeneic to humanized mouse models: addressing the needs for novel immunotherapies (efficacy evaluation and biomarker discovery)</td>
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<td><strong>Jean-François Mirjolet</strong>, Technology Director Oncodesign, FR</td>
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<td>15:30 - 15:55</td>
<td>Rapid In Vivo Profiling</td>
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<td><strong>Daniel Ford</strong>, Head of Data and Algorithms, Vium, US</td>
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<td><strong>Abe Couse</strong>, Head of Marketing, Vium, US</td>
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<td>16:00 - 16:30</td>
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### CYTOMETRY

**Chair: Hamida Hammad**

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<tr>
<td>14:30 - 15:05</td>
<td>Identification of dendritic cell populations responsible for sensitization to inhaled allergens</td>
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<td><strong>Hamida Hammad</strong>, VIB Inflammation Research Center, UGent, BE</td>
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<td><strong>Oliver Otto</strong>, CEO Zellmechanik Dresden, DE</td>
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<td><strong>Haley Pugsley</strong>, Senior Research Scientist at Amnis part of MilliporeSigma, US</td>
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<td>16:00 - 16:30</td>
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### ACADEMIC PLENARY SESSION

**Chair: Mark Veugelers**

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<td>16:30 - 17:05</td>
<td>Multiparametric single-cell technologies for characterization of human cancer specimens</td>
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<td><strong>Julia Kennedy Darling</strong>, Stanford University, US</td>
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<td>17:05 - 17:40</td>
<td>Cancer cell of origin and tumor heterogeneity</td>
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<td><strong>Cédric Blanpain</strong>, VIB Center for the Biology of Disease KU Leuven, BE</td>
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<td>17:40 - 17:50</td>
<td>Closing remarks</td>
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