

SUNDAY 14 MAY, 2017

16.00 – 17.30 OPENING AND KEYNOTE

Chairpersons: *Matthieu Stettler and Hansjörg Hauser*

16.45 – 17.30 **SP001** CELL THERAPY AND CELL CHOICES IN THE SWISS TRANSPLANTATION PROGRAM-FROM THE LABORATORY TO CLINICAL RESEARCH AND USE

Lee Ann Laurent-Applegate – CHUV, Switzerland

17.30 – 19.00 SESSION 1: CELL ENGINEERING AND ANALYTICS

Chairpersons: *Anne Tolstrup and Christopher Sellick*

17.30 – 18.00 **SP002** ENGINEERING CELL METABOLISM TO ENHANCE PROTEIN PRODUCTION

Nathan Lewis - University of California, San Diego, United States

18.00 – 18.20 **OR001** CRISPR-CAS BASED SYNTHETIC TRANSCRIPTION FACTORS: A STRATEGY FOR IMPROVING BIOPRODUCTION IN CHO CELLS

Si Nga (Susie) Sou^{1,}, Dirk-Jan Kleinjan¹, Caroline Wardrope¹, Susan Rosser¹*

¹Institute of Quantitative Biology, Biochemistry, and Biotechnology, School of Biological Sciences, University of Edinburgh, Edinburgh, United Kingdom

18.20 – 18.40 **OR002** DEGRADATION OF RECOMBINANT PROTEINS OF DIVERSE FORMATS BY CHO HOST CELL PROTEASES IS CIRCUMVENTED VIA KNOCK-OUT OF CHO MATRIPTASE

Holger Laux^{1,}, Sandrine Romand¹, Ursula Bodendorf²*

¹BTDM, ²ATI, Novartis, Basel, Switzerland

18.40 – 19.00 **OR003** TRANSPOSON-MEDIATED GENE INTEGRATION – THE FUTURE OF STABLE CHO CELL LINE DEVELOPMENT?

Gavin Barnard^{1,}*

¹Biotechnology Discovery Research, Eli Lilly, INDIANAPOLIS, United States

19:00 – 21.00 EXHIBITOR'S RECEPTION

MONDAY 15 MAY, 2017

09.00 – 10.30 SESSION 2: CELL ENGINEERING AND ANALYTICS (CONTINUED)

Chairpersons: Alan Dickson and Anne Tolstrup

09.00 – 09.30 SP003 POPULATION DYNAMICS OF MONOCLONAL CHO CELL LINES

Karin Anderson – Pfizer, United States

09.30 – 09.50 OR004 SMALL RNA - BIG IMPACT: USING MICRORNAS TO ENHANCE MANUFACTURABILITY OF DIFFICULT-TO-EXPRESS PROTEINS IN CHO CELLS

Martin Gamer^{1,*}, Simon Fischer², Lisa Pieper³, Jürgen Fieder¹, Patrick Schulz², Harald Bradl², Ingo Gorr¹

¹Early Stage Bioprocess Development, ²Cell Culture Development CMB, Boehringer Ingelheim, Biberach, ³Institute of Cell Biology and Immunology, University of Stuttgart, Stuttgart, Germany

09.50 – 10.00 SP004 MAMMALIAN CELL LINE DEVELOPMENT, MINIATURIZATION, AUTOMATION, AND ANALYSIS USING THE BERKELEY LIGHTS PLATFORM

Kim Le – Amgen, United States

10.00 – 10.10 OR006 A NOVEL SITE-SPECIFIC INTEGRATION SYSTEM FOR CELL LINE DEVELOPMENT

Mara Christine Inniss^{1,*}, Lin Zhang¹

¹Cell Line Development, Pfizer, Andover, United States

10.10 – 10.15 Poster Spotlight - PO266 IDENTIFYING OPPORTUNITIES IN CELL ENGINEERING FOR THE PRODUCTION OF 'DIFFICULT TO EXPRESS' RECOMBINANT PROTEINS

Hirra Hussain^{1,*}, David Fisher², Robert Roth³, Alan J Dickson¹

¹University of Manchester, Manchester, ²AstraZeneca, Cambridge, United Kingdom, ³AstraZeneca, Molndal, Sweden

10.15 – 10.20 Poster Spotlight - PO234 OPTIMIZATION OF THE CLC FOR MANUFACTURING PURPOSES USING A NOVEL SINGLE CELL PRINTING TECHNOLOGY

Amélie Mahé^{1,*}, Pierre-Alexis Cayatte¹, Alix Lecomte¹, Keith Wilson¹, Adrian Haines¹

¹Bioprocess R&D, Novimmune SA, Plan-les-Ouates, Switzerland

10.20 – 10.25 Poster Spotlight - PO236 A NOVEL SIRNA AIDED METHOD FOR CHO CELL LINE SELECTION

Andreas Bernhard Diendorfer^{1,*}, Vaibhav Jadhav¹, Zach Wurz², Frank Doyle³, Ted Eveleth², Scott Tenenbaum³, Nicole Borth^{1,4}

¹Austrian Center of Industrial Biotechnology, Vienna, Austria, ²HocusLocus LLC, ³State University of New York Polytechnic Institute, Albany, United States, ⁴University of Natural Resources and Life Sciences, Vienna, Austria

10.25 – 10.30 Poster Spotlight - PO308 EVALUATION OF MICRORNA-BASED GENETIC SWITCHES AS TRANSGENE EXPRESSION MODULATORS IN CHO CELLS

Ricardo Valdés-Bango Curell^{1,*}, Craig Monger^{1,2}, Krishna Motheramgari^{1,2}, Justine Meiller¹, Alan Costello¹, Nicole Borth³, Martin Clynes¹, Colin Clarke², Niall Barron¹

¹National Institute for Cellular Biotechnology, Dublin City University, ²National Institute for Bioprocessing Research and Training, Dublin, Ireland, ³Department of Biotechnology, BOKU University of Natural Resources and Life Sciences, Vienna, Austria

10.30 – 11.00 Coffee break

11.00 – 12.30 SESSION 3: CELL ENGINEERING AND ANALYTICS (CONTINUED)

Chairpersons: Terry Papoutsakis and Alan Dickson

11.00 – 11.30 OR007 DIRECTED EVOLUTION OF CHO CELLS WITH INCREASED SYNTHETIC CAPACITY

David James^{1,*}, Katie Syddall¹, Alejandro Fernandez-Martell¹

¹Chemical and Biological Engineering, University of Sheffield, Sheffield, United Kingdom

11.30 – 11.50 OR008 VITAMIN B5 TRANSPORT AS A METABOLIC SELECTION FOR HIGHLY EFFICIENT RECOMBINANT PROTEIN EXPRESSION BY MAMMALIAN CELLS

Lucille Pourcel^{1,*}, Valérie Le Fourn², Pierre-Alain Girod³, Nicolas Mermod¹

¹University of Lausanne, Lausanne, ²SELEXIS SA, Genève, ³SELEXIS SA, Gevève, Switzerland

11.50 – 12.10 OR009 GLYCOENGINEERING IN A HUMAN CELL LINE FOR IMPROVEMENT OF BIOPHARMACEUTICALS HALF LIFE

Karina Nawrath^{1,*}

¹Platformdevelopment, Glycotope GmbH, Berlin, Germany

12.10 – 12.30 OR010 LIPIDOMICS FOR ROBUST HIGH PERFORMANCE PROCESS DEVELOPMENT

Andréa Mc Cann¹, Grégory Mathy^{1,*}, Laetitia Malphettes¹

¹Upstream Process Sciences, UCB Pharma S.A., Braine l'Alleud, Belgium

12.30 – 14.00 Lunch

14.00 – 15.30 POSTER SESSION AND COFFEE

PRESENTATION OF UNEVEN POSTER NUMBERS

Presenting authors must be at their poster for discussion.

15.30 – 17.00 SESSION 4: CELL CULTURE BASED VACCINES

Chairpersons: Paula Alves and Rino Rappuoli

15.30 – 16.00 **SP005** THE PER.C6 CELL LINE: FROM A PROMISING VACCINE MANUFACTURING PLATFORM TO PROVEN REAL WORLD PERFORMANCE

Dirk Redlich – Janssen, Belgium

16.00 – 16.20 **OR011** A CONTINUOUS TUBULAR BIOREACTOR FOR STABLE PRODUCTION OF CELL CULTURE-DERIVED INFLUENZA VIRUS VACCINES

Felipe Tapia^{1,2,*}, Yvonne Genzel², Volker Sandig³, Udo Reichl^{2,4}¹International Max Planck Research School for Advanced Methods in Process and Systems Engineering, Max Plank Institute,²Bioprocess Engineering, Max Plank Institute for Dynamics of Complex Technical Systems, Magdeburg, ³ProBioGen AG, Berlin,⁴Chair of Bioprocess Engineering, Otto von Guericke University Magdeburg, Magdeburg, Germany

16.20 – 16.40 **OR012** PRODUCTION AND PURIFICATION OF ZIKA AND YELLOW FEVER VIRUS-LIKE PARTICLES (VLPs) EXPRESSED IN MAMMALIAN CELLS

Leda Castilho^{1,2,*}, Renata Alvim¹, Marcos Pinho¹, Tania Pato³, Adrian Creanga², Sung-Youl Ko², Wing-Pui Kong², Barney Graham²¹Cell Culture Engineering Lab., COPPE, Federal University of Rio de Janeiro, Rio de Janeiro, Brazil, ²VRC, National Institutes ofHealth (NIH), Bethesda, MD, United States, ³Biomanguinhos, FIOCRUZ, Rio de Janeiro, Brazil

16.40 – 16.50 **OR013** OPTIMIZATION OF A BIOPROCESS FOR THE DEVELOPMENT OF A WHOLE VIRUS INACTIVATED HEPATITIS C VIRUS VACCINE

Anne F. Pihl^{1,2,*}, Christian K. Mathiesen^{1,2}, Tanja B. Jensen^{1,2}, Garazi P. Alzua^{1,2}, Anna Offersgaard^{1,2}, Ulrik Fahnøe^{1,2}, Jan P.Christensen², Jens Bukh^{1,2}, Judith M. Gottwein^{1,2}¹Copenhagen Hepatitis C Program (CO-HEP), Department of Infectious Diseases and Clinical Research Centre, HvidovreHospital, Hvidovre, ²Department of Immunology and Microbiology, University of Copenhagen, Copenhagen, Denmark

16.50 – 16.55 **Poster Spotlight - PO221** VAXARRAY SEASONAL INFLUENZA ASSESSMENT OF CELL-DERIVED INFLUENZA VACCINE POTENCY

Rose Nash^{1,*}, Kathy Rowlen¹, Erica Dawson¹, Laura Kuck¹¹INDEVIR, Boulder, United States

16.55 – 17.00 **Poster Spotlight - PO166** ON-LINE MONITORING OF DIELECTRIC CELL PROPERTIES FOR THE ANALYSIS OF VIRUS-LIKE PARTICLE PRODUCTION BY CAP CELLS

Sonia Gutiérrez^{1,*}, Kerstin Hein², Núria Civit¹, Francesc Gòdia¹¹Chemical, Biological and Environmental Engineering, Universitat Autònoma de Barcelona, Cerdanyola del Vallès, Spain,²Cevac Pharmaceuticals, GmbH, Cologne, Germany

17.00 – 17.30 Coffee break

17.30 – 18.30 SESSION 5: ENABLING CELL BASED TECHNOLOGIES

Chairpersons: Michael Betenbaugh and Martin Fussenegger

17.30 – 18.00 **SP006** SOLVING THE ENVIRONMENTAL ISSUES FOR CELLS: TOWARDS PRECISE REGULATION OF STEM CELL FUNCTIONS

Ken-Ichiro Kamei - Kyoto University, Japan

18.00 – 18.15 **OR014** A NOVEL IN VITRO PANCREATIC ISLET MODEL SYSTEM FOR DIABETES RESEARCH

Aparna Neelakandhan¹, Adelinn Biernath¹, Olivier Frey¹, Burcak Yesildag^{1,*}¹InSphero AG, Schlieren, Switzerland

18.15 – 18.20 **Poster Spotlight - PO354** DEVELOPMENT OF A WOUND HEALING ASSAY USING INCLUSION BODIES

Anne Stamm^{1,*}, Sarah Strauß², Peter Vogt², Thomas Scheper¹, Iliyana Pepelanova¹¹Institute of Technical Chemistry, Leibniz University Hannover, ²Department of Plastic, Aesthetic, Hand and Reconstructive

Surgery, Hannover Medical School, Hannover, Germany

18.20 – 18.25 **Poster Spotlight - PO363** 3D-PRINTED MICROFLUIDIC CHANNEL AND CULTIVATION MOLD FOR QUANTITATIVE EVALUATION OF CELL MIGRATION PROPERTY

Ko-Ichiro Miyamoto^{1,*}, Torsten Wagner², Michael Schöning², Tatsuo Yoshinobu¹¹Department of Electronic Engineering, Tohoku University, Sendai, Japan, ²Institute of Nano- and Biotechnologies, Aachen

University of Applied Sciences, Jülich, Germany

18.25 – 18.30 **Poster Spotlight - PO369** FLUORESCENT CELL-BASED BIOSENSORS FOR DETECTION AND QUANTIFICATION OF LABEL-FREE VIRUS AND VIRAL VECTORS

Miguel Ricardo Guerreiro^{1,2,*}, Paula Marques Alves^{1,2}, Ana Sofia Coroadinha^{1,2}¹iBET - Instituto de Biologia Experimental e Tecnológica, ²Instituto de Tecnologia Química e Biológica António Xavier, Oeiras, Portugal

TUESDAY 16 MAY, 2017

09.00 – 10.30 SESSION 6: ENABLING CELL BASED TECHNOLOGIES (CONTINUED)

Chairpersons: Martin Fussenegger and Michael Betenbaugh

- 09.00 – 09.30 **SP007** HUMAN STEM CELL BASED IN VITRO MODELING OF PARKINSON'S DISEASE.
Jens Schwamborn - University of Luxembourg, Luxembourg
- 09.30 – 09.55 **OR015** DYNAMIC REMODELING OF NEURAL CELLULAR AND EXTRACELLULAR SIGNATURES DEPICTED IN 3D IN VITRO DIFFERENTIATION OF HUMAN IPSC-DERIVED NSC
Daniel Simão^{1,2,*}, Ana Paula Terrasso^{1,2}, Marta M Silva^{1,2}, Francisca Arez^{1,3}, Marcos F Sousa^{1,2}, Nuno Raimundo⁴, Patrícia Gomes-Alves^{1,2}, Eric J Kremer^{5,6}, Paula Alves^{1,2}, Catarina Brito^{1,2}
¹iBET, Instituto de Biologia Experimental e Tecnológica, ²Instituto de Tecnologia Química e Biológica, Oeiras, Portugal, ³Instituto de Tecnologia Química e Biológica, Oeiras, France, ⁴Universitätsmedizin Göttingen, Institut für Zellbiochemie, Göttingen, Germany, ⁵Institut de Génétique Moléculaire de Montpellier, CNRS UMR 5535, ⁶Université de Montpellier, Montpellier, France
- 09.55 – 10.20 **OR016** MIMICKING METABOLIC LIVER ZONATION RESTORES FUNCTIONAL HETEROGENEITY IN CULTURED HEPATOCYTES
Tom Wahlich^{1,2,*}, Christoph Lipps^{1,2}, Dagmar Wirth^{1,2}
¹Model Systems for Infection and Immunity, Helmholtz Centre for Infection Research, Braunschweig, ²REBIRTH Cluster of Excellence, Hannover, Germany
- 10.20 – 10.25 **Poster Spotlight - PO366** DEVELOPMENT OF ALTERNATIVE ANIMAL CELL TECHNOLOGY PLATFORMS: CHO BASED CELL-FREE PROTEIN SYNTHESIS SYSTEMS FOR THE PRODUCTION OF "DIFFICULT-TO-EXPRESS" PROTEINS
Lena Thoring^{1,*}, Srujan Dondapati¹, Marlitt Stech¹, Doreen Wüstenhagen¹, Stefan Kubick¹
¹Cell-free and Cell based Bioproduction, Fraunhofer Institute for Cell therapy and Immunology, Potsdam, Germany
- 10.25 – 10.30 **Poster Spotlight - PO371** AUTOMATION-COMPATIBLE MICROFLUIDIC SYSTEM FOR MULTI-TISSUE INTEGRATION
Olivier Frey^{1,*}, David Fluri¹, Jin-young Kim², Kasper Renggli³, Andreas Hierlemann³, Jens Kelm¹
¹InSphero AG, Schlieren, Switzerland, ²DGIST, Daegu, Korea, Republic Of, ³BSSE, ETH Zurich, Basel, Switzerland
- 10.30 – 11.00 Coffee break
- 11.00 – 12.30 **SESSION 7: CELL CULTURE BASED PROCESS ENGINEERING AND PRODUCT QUALITY**
Chairpersons: Chetan Goudar and Paulo Fernandes
- 11.00 – 11.30 **SP008** Title TBA
Thomas Ryll – Immunogen, United States
- 11.30 – 11.45 **OR019** USE OF BIOCAPACITANCE PROBES FOR OPTIMIZED PROCESS CONTROL AT LARGE-SCALE MANUFACTURING
Christoffer Bro^{1,*}, Chris Kwiatkowski², Joshua Goldstein³, Eugene Schaefer³, Anne Tolstrup¹
¹Manufacturing Sciences, Biogen, Hillerod, Denmark, ²Technical Development, Biogen, Cambridge, ³Janssen Research & Development, Janssen, Malvern, United States
- 11.45 – 12.00 **OR020** HIGH THROUGHPUT ANALYSIS OF ANTIBODY GLYCOSYLATION IN CELL CULTURE SAMPLES
Sebastian Giehring^{1,*}, Christine Wosnitza¹, Christian Meissner¹
¹PAIA Biotech GmbH, Köln, Germany
- 12.00 – 12.05 **Poster Spotlight - PO128** SEED TRAIN CULTURE CONDITIONS CAN AFFECT PRODUCTION CULTURE PERFORMANCE: A CASE STUDY FOR A CHO CELL CULTURE PROCESS
Martin Gawlitzek^{1,*}, Meg Tung¹, Szu-han Wang¹, Shahram Misaghi², Robert Kiss¹
¹Late Stage Cell Culture, ²Early Stage Cell Culture, Genentech, South San Francisco, United States
- 12.05 – 12.10 **Poster Spotlight - PO059** DIAMINE OXIDASE N-GLYCOSYLATION SITE ASN110 IS HIGHLY CONSERVED IN EVOLUTION AND ESSENTIAL FOR SECRETION
Elisabeth Gludovacz^{1,2,*}, Daniel Maresch¹, Clemens Grünwald-Gruber¹, Verena Puxbaum¹, Laurenz J. Baier¹, Leonor Lopes de Carvalho³, Friedrich Altmann¹, Tiina A. Salminen³, Barbara Ulm², Sophie Pils², Thomas Boehm², Bernd Jilma², Nicole Borth¹
¹University of Natural Resources and Life Sciences, ²Medical University of Vienna, Vienna, Austria, ³Åbo Akademi University, Turku, Finland
- 12.10 – 12.15 **Poster Spotlight - PO145** LEACHABLES FROM SINGLE-USE DISPOSABLE BIOREACTORS – MAKING BETTER BAGS WORSE
Paul S Kelly^{1,*}, Samantha Pare¹, Niall Barron¹, Orla Coleman¹, Paula Meleady¹, Martin Clynes¹, Shane McSweeney¹, Jonathon Bones², Sara Carrillo², Noemi Dorival Garcia²
¹National Institute for Cellular Biotechnology, Dublin City University, ²National Institute for Bioprocessing Research and Training, Dublin, Ireland

- 12.15- 12.20 **Poster Spotlight - PO174** USE OF AN ANTIOXIDANT TO IMPROVE MONOCLONAL ANTIBODY PRODUCTION AND QUALITY IN CHO CELLS
Tae Kwang Ha^{1,}, Helene Fastrup Kildegaard¹, Gyun Min Lee²*
¹Novo Nordisk Foundation Center for Biosustainability, Technical University of Denmark, Kgs.Lyngby, Denmark, ²Department of Biological Sciences, Korea Advanced Institute of Science and Technology, Daejeon, Korea, Republic Of
- 12.20 – 12.25 **Poster Spotlight - PO030** INTEGRATED MEDIA BLENDING INCREASES EFFICIENCY OF CLONE SELECTION
Caroline Desmurget^{1,}, Jean-Marc Bielser¹, Martin Jordan¹, David Brühlmann¹, Marc Nater¹, Jonathan Souquet¹, Herve Broly¹*
¹MERCK, Corsier sur Vevey, Switzerland
- 12.25 – 12.30 **Poster Spotlight - PO065** DEVELOPMENT OF AN ANALYTICAL APPROACH FOR ON-LINE MONITORING AND CONTROL OF MONOCLONAL ANTIBODIES QUALITY
Florian Cambay^{1,}, Gregory De Crescenzo¹, Olivier Henry¹, Yves Durocher²*
¹Chemical engineering, Ecole Polytechnique de Montréal, ²Human Health Therapeutics Portfolio, National Research Council Canada, Montréal, Canada
- 12.30 – 14.00 Lunch and ESACT General Assembly (Auditorium C)
- 14.00 – 15.30 POSTER SESSION AND COFFEE**
- PRESENTATION OF EVEN POSTER NUMBERS**
Presenting authors must be at their poster for discussion.
- 16.00 – 21.00 OUTING TO THE LAUSANNE OLYMPIC MUSEUM**

WEDNESDAY 17 MAY, 2017

09.00 – 10.30 SESSION 8: CELL CULTURE BASED PROCESS ENGINEERING AND PRODUCT QUALITY (CONTINUED)

Chairpersons: Alain Bernard and Chetan Goudar

09.00 – 09.30 **SP009** INTENSIFICATION OF A MULTI-PRODUCT PERFUSION PLATFORM THROUGH MEDIUM AND PROCESS DEVELOPMENT

Shawn Barrett – Sanofi, United States

09.30 – 09.45 **SP010** OPTIMIZATION OF A MAMMALIAN CELL PERFUSION CULTURE IN PRODUCTIVITY AND PRODUCT QUALITY

Moritz Wolf – ETH, Switzerland

09.45 – 10.00 **OR021** CONFIRMING SIALYLATION BIOMARKERS IN A CHO BIOPROCESS USING OMICS

Amanda Lewis^{1,*}, Timothy Erlandson², Alison Lee², Nelly Aranibar³, Bethanne Warrack³, Angela Au⁴, Michael Borys², Michael Reily³
¹MS&T, ²PD, BMS, Devens, ³R&D, BMS, Lawrenceville, ⁴MS&T, BMS, Syracuse, United States

10.00 – 10.30 **SP011** SUCCESSES AND CHALLENGES OF CELL CULTURE FOR THERAPEUTIC MAB PRODUCTION

Thierry Ziegler – Sanofi, France

10.30 – 11.00 Coffee break

11.00 – 12.30 SESSION 9: CELL CULTURE BASED PROCESS ENGINEERING AND PRODUCT QUALITY (CONTINUED)

Chairpersons: Florian Wurm and Alain Bernard

11.00 – 11.30 **SP012** ANOTHER ARROW IN THE QUIVER – CELL RETENTION/PERFUSION – HOW, WHEN AND WHY - JUDICIOUS USE OF A BRUTE-FORCE TECHNOLOGY

Gregory Hiller – Pfizer, United States

11.30 – 11.50 **OR022** THE DEVELOPMENT OF NOVEL SURFACTANTS AND THEIR ROLE IN DEFINED MEDIA

Tanja Bus^{1,*}, Meike N. Leiske¹, Anne-Kristin Truetzschler¹, Ekaterina Rudiseva², Sandra Klausning³, Christoph Heinrich³, Anja Traeger¹, Ulrich S. Schubert¹

¹Laboratory of Organic and Macromolecular Chemistry (IOMC), Jena Center for Soft Matter (JCSM), Friedrich Schiller University, Jena, ²Institute of Cell Culture Technology, Bielefeld University, ³XELL AG, Bielefeld, Germany

11.50 – 12.10 **OR023** SMALL PROCESS CHANGES DO MATTER- MATCHING SCALE DOWN AND AT SCALE CELL CULTURE PERFORMANCE FOR A THERAPEUTIC ANTIBODY

Veronica Carvalho^{1,*}, Thomas DiRocco¹, Brian Horvath¹, Jessica Wu¹, Steve Meier¹, Bob Kiss¹

¹LSCC, Genentech, South San Francisco, United States

12.10 – 12.30 **OR024** BIOCHEMICAL CHARACTERIZATION OF REDOX ACTIVE SUBSTANCES TO IMPROVE HARVEST ROBUSTNESS DURING MONOCLONAL ANTIBODY PRODUCTION

Sven Loebrich^{1,*}, Wesley Chen¹, Thomas Ryll¹, Seth Kitchener¹

¹Cell Line and Upstream Process Engineering, ImmunoGen, Waltham, United States

12.30 – 14.00 Lunch

14.00 – 15.30 SESSION 10: EMERGING CELL BASED THERAPEUTIC APPROACHES

Chairpersons: Nicolas Mermod and Hansjörg Hauser

14.00 – 14.30 **SP013** DESIGNER MATRICES FOR STEM CELL-BASED ORGANOID CULTURE

Matthias Lutolf – EPFL, Switzerland

14.30 – 14.50 **OR025** IMPROVING MATURATION OF CARDIOMYOCYTES DERIVED FROM HUMAN PLURIPOTENT STEM CELLS: AN “-OMICS” DRIVEN APPROACH

Cláudia Correia¹, Alexey Koshkin¹, Patrícia Duarte¹, Dongjian Hu², Ana Teixeira¹, Ibrahim Domian², Margarida Serra^{1,*}, Paula M. Alves¹

¹BET/ITQB-NOVA, Oeiras, Portugal, ²Massachusetts General Hospital/Harvard Medical School, Boston, MA, United States

14.50 – 15.10 **OR026** ASSESSMENT OF A CELL THERAPY APPROACH FOR DUCHENNE MUSCULAR DYSTROPHY USING MESOANGIOBLASTS AND TRANSPOSABLE VECTORS

Pavithra Iyer^{1,*}, Lionel Mavoungou¹, Flavio Ronzoni², Joanna Zemla³, Marisa Jaconi², Malgorzata Lekka³, Nicolas Mermod¹

¹Institute of Biotechnology, UNIVERSITY OF LAUSANNE, Lausanne, ²Department of Pathology and Immunology, Faculty of Medicine, University of Geneva, Geneva, Switzerland, ³Institute of Nuclear Physics, Polish Academy of Sciences, Krakow, Poland

- 15.10 – 15.30 **OR027** BETA-CELL-MIMETIC DESIGNER CELLS PROVIDE CLOSED-LOOP GLYCEMIC CONTROL
Mingqi Xie^{1,}, Haifeng Ye², Martin Fussenegger¹*
¹ETH ZURICH D-BSE, Basel, Switzerland, ²East China Normal University, Shanghai, China
- 15.30 – 17.00** **KEYNOTE AND CLOSING**
Chairpersons: Chetan Goudar and Matthieu Stettler
- 15.30 – 16.15 **SP014** TECHNOLOGIES TAILORED FOR CELLULAR THERAPY MANUFACTURING
Jamie Piret - University of British Columbia, Canada
- 19.00 – 00.00** **25TH ESACT MEETING CELEBRATION AT THE SWISSTECH CONVENTION CENTER**