

Program

Opening Plenary Session

Session

Closing Panel Plenary Session

Poster

Lunch Symposium

OPS **Saturday, March 21, 2026 8:00-10:00 (Room 1)**
Opening Plenary Session Present learnings from sector's success, including from a CAR-T

Moderator: George Muschler (Cleveland Clinic)
Masayo Takahashi (VCCT Inc.)

OPS **From Early Prototypes to Commercial Cell Therapy Platforms: Lessons from CAR T Cells Past, Present, and Future**
Bruce Levine (University of Pennsylvania Center for Cellular Immunotherapies, Philadelphia, USA)

SS-01 **Saturday, March 21, 2026 10:15-11:45 (Room 1)**
Session 1 Clinical Updates in Ocular and Central Nervous System

Moderator: George Muschler (Cleveland Clinic)
Tadao Maeda (VCCT Inc.)

SS-01-1 iPSC-based Therapy for Parkinson's Disease
Jun Takahashi (Center for iPS Cell Research and Application, Kyoto University, Kyoto, Japan)

SS-01-2 From First-in-Human to Chronic SCI: Advancing iPSC-Derived Neural Stem Cell Therapy for Spinal Cord Injury
Hideyuki Okano (Keio University Regenerative Medicine Research Center, Kawasaki, Japan)

SS-01-3 Clinical Translation of iPSC-Derived Retinal Cell Therapy as a Model for Central Nervous System Regeneration
Tadao Maeda (VCCT Inc.)

SS-02 **Saturday, March 21, 2026 10:15-11:45 (Room 2)**
Session 2 Clinical target prioritization for iPSC-based therapies / Prioritization of clinical targets and technologies

Moderator: Max Gnechchi (University of Pavia and IRCCS San Matteo)
Masayo Takahashi (VCCT Inc.)

SS-02-1 Development of iPSC-based regenerative medicine for ocular diseases
Kohji Nishida (Professor and Chairman, Department of Ophthalmology, The University of Osaka Graduate School of Medicine/Faculty of Medicine, Osaka, Japan / Director, The University of Osaka Premium Research Institute for Human Metaverse Medicine (WPI-PRIME), Osaka, Japan)

SS-02-2 mRNA-Empowered Multiple Cell Type Differentiation in Manufacturing Transplantable Human Liver
Jiwu Wang (PhD, CEO- Allele Biotechnology)

SS-02-3 Supporting PSC-based therapeutic development: a CIRM perspective
Ross Masao Okamura (California Institute for Regenerative Medicine, South San Francisco, USA)

SS-03 Saturday, March 21, 2026 10:15-11:45 (Room 3)

Session 3 Understanding Regional Variation in Regulatory Policies - Looking for Best Practices and Standardization

Moderator: David Louis DiGiusto (DiGiusto Consulting LLC)

Yoshiaki Maruyama (Pharmaceuticals and Medical Devices Agency)

SS-03-1 Regulatory updates on cell and gene therapy products in Japan

Yoshiaki Maruyama (Pharmaceuticals and Medical Devices Agency, Tokyo, Japan)

SS-03-2 Navigating the European Regulatory Landscape for Cell Therapies in an Evolving World

Ana Hidalgo Simon (LUMC, Leiden, Netherlands)

SS-03-3 The importance of regulatory innovation in advancing cell and gene therapy development

Peter Wayne Marks (Eli Lilly and Company, Washington, DC, USA)

SS-04 Saturday, March 21, 2026 13:00-14:30 (Room 1)

Session 4 From disease modelling and drug discovery to cardiac repair

Moderator: Max Gnechi (University of Pavia and IRCCS San Matteo)

Takehiko Kaneko (Heartseed Inc., Tokyo, Japan)

SS-04-1 TBA

Max Gnechi (University of Pavia and IRCCS San Matteo)

SS-04-2 Remuscularization for Severe Heart Failure: Clinical Outcomes from the LAPiS Study and Future Directions in Cardiomyocyte Replacement Therapy

Takehiko Kaneko (Heartseed Inc., Tokyo, Japan)

SS-04-3 Challenges in Developing iPSC Cell-Derived Cardiomyocyte Therapy: From Scalable Manufacturing to Efficient In Vivo Engraftment

Yoshinori Yoshida (Center for iPSC Cell Research and Application, Kyoto University, Kyoto, Japan)

SS-05 Saturday, March 21, 2026 13:00-14:30 (Room 2)

Session 5 Manufacturing 2.0: Advanced Platforms, Automation, and AI/ML

Moderator: George Muschler (Cleveland Clinic)
Shin Kawamata (Cyto-Facto Inc.)

SS-05-1 Next-Generation Cell Therapy Manufacturing: Harnessing AI and Robotics for Data-Driven Process Optimization

Hideto Yamaguchi (Cellafa Bioscience Inc., Tokyo, Japan)

SS-05-2 Integrating AI/ML Models to Advance Manufacturing and QC for iPSC-Derived Neuron Replacement Therapy

Xiaokui Zhang (Aspen Neuroscience, Inc., San Diego, USA)

SS-05-3 Robotic Automation for Cell Manufacturing: Process Stabilization via Design Validation and Motion Analysis in iPSC-Derived RPE Cell Production

Masahiro Kino-oka (Department of Biotechnology, Graduate School of Engineering, The University of Osaka, Osaka, Japan / Research Base for Cell Manufacturability, Graduate School of Engineering, The University of Osaka, Osaka, Japan)

SS-06 Saturday, March 21, 2026 13:00-14:30 (Room 3)

Session 6 Potential solutions and opportunities for towards harmonization

Moderator: David Louis DiGiusto (DiGiusto Consulting LLC)
Yoji Sato (National Institute of Health Sciences)

SS-06-1 The Access Consortium as a Collaborative International Model to Streamline Regulation and Speed Global Access to Innovative Therapeutic Products

Jacqueline Barry (Cell and Gene Therapy Catapult, London, UK)

SS-06-2 Revision of the Standards for Human Cells as Starting Materials: Aiming for International Regulatory Harmonization

Yoji Sato (National Institute of Health Sciences, Kawasaki, Japan)

SS-06-3 iPSC-derived Cell-based Products: A Plausible Venn Diagram for Regulatory Convergence

Don Fink (Dark Horse Consulting Group, Walnut Creek, California, United States)

SS-07 Saturday, March 21, 2026 14:45-16:15 (Room 1)

Session 7 iPSC Applications in Endocrine and Metabolic Disorders: From Pancreatic Islets to Therapy

Moderator: Max Gnechchi (University of Pavia and IRCCS San Matteo)
Takanori Takebe (Institute of Science Tokyo)

SS-07-1 In Vitro Gametogenesis: A Window into Germline and Gonadal Development from Mechanisms to Potential Applications

Katsuhiko Hayashi (Department of Genome Biology, Graduate School of Medicine, Osaka University, Osaka, Japan)

SS-07-2 Immuno-Evasive Human iPSC-Organoid based Bioartificial Liver Support Therapy

Takanori Takebe (Institute of Science Tokyo, Tokyo, Japan)

SS-07-3 Development of a Manufacturing Process for iPS Cell-Derived Pancreatic Islet Cells (iPICs) Towards Clinical Application for Type 1 Diabetes

Taro Toyoda (Department of Life Science Frontiers, Center for iPS Cell Research and Application (CiRA), Kyoto University, Kyoto, Japan)

SS-08 Saturday, March 21, 2026 14:45-16:15 (Room 2)

Session 8 Small-scale Manufacturing including Auto- and Allo- treatment

Moderator: David Louis DiGiusto (DiGiusto Consulting LLC)
Masahiro Kino-oka (The University of Osaka)

SS-08-1 A Universal Strategy for Reproducible iPSC Differentiation through HA-Mediated Cell Synchronization

Mee-Hae Kim (Department of Biotechnology, Graduate School of Engineering, The University of Osaka, Suita, Japan)

SS-08-2 Robust Automation in Small Scale iPSC Manufacturing - An Evolution of Concepts, Tools, Data, Models and System Integration

George Frederick Muschler (Emeritus Professor, Cleveland Clinic, Cleveland, USA)

SS-08-3 Programmable Pluripotent Cell-Derived Tissue Replacement Platform

Anthony E Oro (Stanford University, Stanford, USA)

SS-09 Saturday, March 21, 2026 14:45-16:15 (Room 3)
Session 9 Unlocking Access: Comparative Approaches to Reimbursement of Cell and Gene Therapies "Access and Affordability"

Moderator: Miguel Forte (ISCT)
 Masayo Takahashi (VCCT Inc.)

SS-09-1 TBA
 Philip Vanek (ISCT)

SS-09-2 TBA
 Eri Kasagi

SS-09-3 Sustainable Reimbursement Models for Cell and Gene Therapies within Japan's Health Insurance System
 Masayo Takahashi (VCCT Inc.)

SS-10 Saturday, March 21, 2026 16:30-18:00 (Room 1)
Session 10 Harnessing iPSCs for Blood and Immune System Disorders

Moderator: Xiaokui Zhang (Aspen Neuroscience, Inc.)
 Miguel Forte (ISCT)

SS-10-1 Mesenchymal Stromal Cells product and therapeutic benefit optimization for Autoimmune Diseases
 Miguel Forte (Kiji Therapeutics, Rixensart, Belgium / ISCT)

SS-10-2 New R&D strategy for iPSC-derived platelets based on the iPLAT1 clinical trial
 Naoshi Sugimoto (Center for iPS Cell Research and Application (CiRA), Kyoto University, Kyoto, Japan)

SS-10-3 Development of iPSC-based T cell immunotherapy
 Shin Kaneko (Center for iPS cell Research and Application, Kyoto University / Transborder Medical Research Center, University of Tsukuba)

SS-11 Saturday, March 21, 2026 16:30-18:00 (Room 2)
Session 11 Large-scale and Sustainable Manufacturing

Moderator: David Louis DiGiusto (DiGiusto Consulting LLC)
 Shin Kawamata (Cyto-Facto Inc.)

SS-11-1 Introduction of Quality by Design (QbD)-based mass culturing for iPSCs
 Shin Kawamata (Cyto-Facto Inc., Kobe, Japan)

SS-11-2 Clinical and commercial manufacturing iPSC-derived cardiomyocyte patch
 Kouichi Hasegawa (Cuorips Inc, Suita, Osaka, Japan / The University of Osaka, Suita, Osaka, Japan)

SS-11-3 Cells by trillion with preserved quality: unlocking cell therapy by reducing COGs
 Francois Renault-Mihara (TreeFrog Therapeutics, Tokyo, Japan)

SS-12 Saturday, March 21, 2026 16:30-18:00 (Room 3)
Session 12 From Promise to Practice: Patient Perspectives and Ethical Challenges in Advanced Therapies

Moderator: Masayo Takahashi (VCCT Inc.)
 Tsunakuni Ikka (National Cancer Center Japan)

SS-12-1 The Cure Wasn't The End, It Was The Beginning
 Tom Whitehead (Emily Whitehead Foundation)

SS-12-2 The state of unapproved stem cell therapies in the U.S. and legal boundaries
 Paul S Knoepfler (UC Davis School of Medicine, Sacramento, CA, USA)

SS-12-3 Private-Pay Regenerative Medicine under Japan's ASRM: Legal and Ethical Challenges through the Lens of "scienceploitation"
 Tsunakuni Ikka (National Cancer Center Japan, Tokyo, Japan)

CPS Saturday, March 21, 2026 18:00-18:30 (Room 1)
Closing Panel Plenary Session Summarize key learnings from day and forward-looking statement

Moderator: Masayo Takahashi (VCCT Inc.)
 George Muschler (Cleveland Clinic)

IP-01 **Saturday, March 21, 2026 (Poster Area)**
ISCT Poster Session 01 Clinical Studies

IP-01-1 **Preliminary clinical study of intra-articular injection of iPSC-derived conditioned medium (iPS-CM) for knee osteoarthritis**
 Atsushi Sato (Department of Orthopaedic Surgery, Showa Medical University Fujigaoka Hospital, Japan)

IP-01-2 **ENHANCING CLINICAL SAFETY: VIRUS-INACTIVATED HUMAN PLATELET LYSATE AS ALTERNATIVE TO CLINICAL-GRADE FBS**
 Jungsoo Park (PL BioScience GmbH, Germany)

IP-02 **Saturday, March 21, 2026 (Poster Area)**
ISCT Poster Session 02 Regulatory

IP-02-1 **Establishment of a new committee based on a model hospital project for clinical research in regenerative medicine in Eastern Japan**
 Hisako Katano (Center for Stem Cell and Regenerative Medicine, Institute of Science Tokyo, Tokyo, Japan)

IP-03 **Saturday, March 21, 2026 (Poster Area)**
ISCT Poster Session 03 Translational Science

IP-03-1 **Building a Foundation for Regenerative Medical Product Development: A Model Hospital's Initiatives to Promote Clinical Research Using iPSC**
 Kana Kawai (Clinical and Translational Research Center, Keio University Hospital, Japan)

IP-03-2 **Integrated MRI Evaluation of Coronary Microvascular Dysfunction and Fibrosis Before and After Stem Cell Therapy Using T1,T2,ECV,and LGE**
 Yasushi Koyama (The Department of Diagnostic Cardiovascular Imaging, Sakurabashi Watanabe Advanced Healthcare Hospital, Osaka, Japan)

IP-03-3 **A new treatment approach using adenine base editing technology for Sturge-Weber syndrome**
 Kimihiko Banno (Department of Physiology II, Nara Medical University, Kashihara, Japan)

IP-03-4 **A programmable platform for in vivo CAR-T therapy**
 Sikun Meng (The University of Osaka, Osaka, Japan)

IP-03-5 **Evaluation of genetically modified iPSC-derived microglia in a blood-brain barrier assembloid model**
 Tomoaki Kato (Research and Development Center, CiRA Foundation, Osaka, Japan)

IP-03-6 **Fibulin-5-Mediated Elastogenesis in Preputial Fibroblasts In Vitro**
 Feng-Cheng Wu (NDMC, Taipei, Taiwan / Liberty Lab of Tissue Engineering, Kaohsiung, Taiwan)

IP-03-7 Withdrawn

IP-03-8 Preclinical efficacy of CD19-CAR iPS cell-derived NKT cell therapy for acute lymphoblastic leukemia

Takahiro Aoki (Department of Medical Immunology, Graduate School of Medicine, Chiba University, Japan / Laboratory for Developmental Genetics, IMS, RIKEN, Japan)

IP-03-9 Inhibition of inflammation and senescence with azole compound C7 enables expansion of hematopoietic stem and progenitor cells

Kelvin Liu (Division of Medical Sciences, National Cancer Centre Singapore, Singapore)

IP-03-10 ZnMgO Nanoparticles Enhance Osteogenesis in Human iPS Cells

Pedro S Gomes (BoneLab - Faculty of Dental Medicine, U Porto, Portugal / LAQV/REQUIMTE, Portugal)

IP-03-11 Transcriptomic Profiling Reveals Key Dedifferentiation-Associated Gene Set in Long-Term Serially Passaged Auricular Chondrocytes

Dilinapa Alemujiang (Department of Oral and Maxillofacial Surgery, Graduate School of Medicine, The University of Tokyo, Japan)

IP-03-12 Cytocompatible Chitosan-GPTMS-GP/CMC Hydrogels Supporting Mesenchymal Stem Cell Growth for Regenerative Medicine Scaffolds

Wiraya Vijitseranee (Division of Cell Biology, Faculty of Medicine, Thammasat University, Thailand)

IP-03-13 Placental MSC Exosomes Rescue Inflamed Chondrocytes, Enhancing Migration and Accelerating Repair

Donnapha Boontang (Division of Cell Biology, Faculty of Medicine, Thammasat University, Thailand)

IP-03-14 Establishing Syrian Hamster Epiblast Stem Cells to Model Torpor in Kidney Organoids

Dat Dien Le (Laboratory for Human Organogenesis, RIKEN BDR, Japan / Graduate School of Biostudies, Kyoto University, Japan)

IP-03-15 Evaluation of the FLASH Effect Induced by Ultra-High Dose-Rate Proton Irradiation in hiPSC-Derived Brain Microvascular Endothelial Cells

Hikaru Ito (Department of Clinical Pharmacy, Graduate School of Pharmaceutical Sciences, Nagoya City University, Japan)

IP-03-16 MSC-derived Exosomes Mitigate ROS Injury in Porcine Chondrocytes: An In Vitro Osteoarthritis Model

Natchayanun Asavateeratham (Faculty of Medicine, Thammasat University, Pathumthani, Thailand)

IP-04 **Saturday, March 21, 2026 (Poster Area)**
ISCT Poster Session 04 Technological

IP-04-1 Clinical breakthrough: Biomimetic Collagen Scaffolds for Regenerating Large Functional Tissues

Xiaoming He (Acarah Regenerative Medicine, Japan / Wuhan Huayitongxin Biotechnology Co. Ltd, Wuhan, China / Institute of Industrial Science, Center for Research on Engineering in Medicine and Biology, The University of Tokyo, Japan)

IP-04-2 Overcoming iPS Cell Engineering Challenges

Masahisa Ohishi (MaxCyte, Inc. MD, United States)

IP-04-3 Optimizing Automated Growth-Based Methods for Faster Sterility Release Testing of CGT Products

Satoko Mizuno (bioMérieux Japan Ltd., Japan)

IP-04-4 Electrical-Optical Training System for Long-Term Cultivation of iPS Cell Brain Organoids and Neural Circuit Reconstruction

Xiaofei Wang (Department of Electronic Engineering, Tsinghua University, Beijing, China)

IP-04-5 Next-Generation Hypothermic Preservation for Cell Therapy: HTMX Ensures Extended Viability Across Diverse Cell Types

Akira Aizawa (BMG, Inc., Japan)

IP-04-6 Development of SRV iPSC System: An Ideal Tool for Producing Clinical-Grade Autologous iPSCs

Mahito Nakanishi (TOKIWA Bio, Inc., Japan)

IP-05 **Saturday, March 21, 2026 (Poster Area)**
ISCT Poster Session 05 Process Development and Manufacturing

IP-05-1 Culture and Differentiation of Induced Pluripotent Stem (iPS) Cells Using Temperature-Responsive Substrates

Yoshiki Nakashima (CiRA Foundation, Research and Development Center, Osaka, Japan)

IP-05-2 Development of a Sterility Assurance Model for Closed System Manufacturing in the my iPS Project

Yoshimi Sugahara (Research and Development Center, CiRA Foundation, Japan / Engineering Division, Hitachi Plant Services Co., Ltd., Japan)

IP-05-3 Current Status and Challenges of the Clinical-Grade iPS Cell Stock

Hiroshi Dohi (CiRA Foundation, Japan)

IP-05-4 Treefrog Therapeutics: Industrializing cell therapy manufacturing with C-Stem platform

Francois Renault-Mihara (TreeFrog Therapeutics, Japan)

IP-05-5 Automated Closed-System Differentiation of iPSC-Derived Macrophages on Prodigy and CELLA i4.0

Masae Sato (Cira Foundation, Japan)

IP-05-6 Optimized Microbial Quality Control in Cell Therapy Manufacturing with Rapid Microbiological Methods

Juliana Gutierrez (Pharma Quality Control, bioMérieux Japan Ltd., Tokyo, Japan)

IP-05-7 Fully closed and automated manufacturing of iPSCs from post-thaw to harvest

Ryoko Ikema (Medical Engineering Center, SINFONIA TECHNOLOGY CO., LTD, Japan)

LS1 **Saturday, March 21, 2026 12:00-12:50 (Room 1)**
Lunch Symposium by Allele Biotechnology

Chair/Moderator: Dr. Rajesh Ambasudhan, (Chief Strategist- Allele Biotechnology)

Panelists: Dr. Hideyuki Okano (President, ISSCR; CSO- K-Pharma)

Dr. Kenji Osafune (Deputy Director, CiRA)

Dr. Joseph Laning (Head CMC- Astellas Institute of Regenerative
Medicine)

Dr. Takehiko Kaneko (CMO- Heartseed)

Title of the Panel discussion:

“Translatability of iPSC-based cell therapy programs: Practical considerations for line selection, manufacturability, and clinical development”

LS2 **Saturday, March 21, 2026 12:00-12:30 (Room 2)**
Lunch Symposium by IMEC

Speaker: Dr Olivier Henry

Talk title:

"Enabling process automation and analytics integration in regenerative and cell therapy manufacturing"

LS3 **Saturday, March 21, 2026 12:00-12:50 (Room 3)**
Lunch Symposium by Foundation of Medical Professionals Alliance in Taiwan (FMPAT)

Chair: Shih-Chia Lin (Executive Director, Foundation of Medical Professionals Alliance in Taiwan)

MC : Yu-wen Li (Deputy Director, Foundation of Medical Professionals Alliance in Taiwan)

Presenters (in order):

- TLC BioSciences
- Steminent
- YJ Biotechnology
- LumiSTAR
- ARCE Therapeutics
- UWELL Biopharma

Talk title:

"Advancing Regenerative Medicine: Taiwan's Technological Strengths and Innovation"
