CENTRE FOR STEM CELL RESEARCH (A unit of inStem, Bengaluru),
Christian Medical College Campus, Bagayam, Vellore

9TH ANNUAL SYMPOSIUM ON CELL AND GENE THERAPY

1st to 3rd August, 2024

PROGRAMME SCHEDULE

DAY-1: Thursday, 1st August, 2024

1:00 to 1:05 PM 1:05 to 1:20 PM 1:20 to 1:25 PM 1:25 to 1:30 PM	• Prayer by Chaplain • **Welcome remarks:** Director, CMC / Director, InStem / Principal, CMC • Remarks by Secretary, Department of Biotechnology, Ministry of Science and Technology, Govt. of India • **Closing remarks:** Head, CSCR

Session-1: Orthobiologics In Cartilage Repair
Chair: Samuel Chittaranjan

India Time	Title	Speaker Name
1.30 to 2:00 PM	Cell-Based Therapeutics for Arthritic Disease	**Frank Barry** University of Galway, Ireland
2:00 to 2:30 PM	PRP for OA Knee: Bench to bedside	**Sandeep Patel** The Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh, India
2:30 to 3:00 PM	The Role of Extracellular Vesicles and Orthobiologics Secretome in Joint Preservation	**Elizabeth Vinod** Centre for Stem Cell Research, a unit of inStem, Bengaluru and Christian Medical College, Vellore, India
3:00 to 3:30 PM	**Poster presentation and Industry Exhibition**	

Session-2: MANUFACTURING AND REGULATORY ASPECTS IN CELL AND GENE THERAPY
Chair: Cartikeya Reddy

India Time	Title	Speaker Name
3:30 to 4:00 PM	Regulatory Paradigm of CAR-T therapies in India **And** Challenges and Promise of CAR-based therapies in India	**Akhil Kumar** Aurigene Oncology Limited, Bangalore, India ***and*** **Priyadarshini Chatterjee** Aurigene Oncology Limited, Bangalore, India
4:00 to 4:30 PM	From Innovation to Translation to Patients: The Future of Genetically Engineered T-Cells for Human Therapeutics	**Bruce L. Levine** The University of Pennsylvania, Philadelphia, US
4:30 to 5:00 PM	Mesenchymal stromal cells for clinical applications: CMC Challenges and Paths Forward	**Sowmya Viswanathan** Schroeder Arthritis Institute, University Health Network and the University of Toronto, Ontario, Canada
5:00 to 5:15 PM	**Break**	

Session-3: TECHNOLOGY ADVANCES
Chair: Soniya Nityanand

India Time	Title	Speaker Name
5:15 to 5:45 PM	Development of targeted viral platform for selective gene transfer to human HSCs in vivo	**Dmitry M. Shayakhmetov** Emory University School of Medicine Atlanta, USA
5:45 to 6:15 PM	Genetic and Transcriptional Engineering of Primary Human Blood Cells	**Rasmus O. Bak** Aarhus University, Department of Biomedicine, Aarhus, Denmark
6:15 to 6:45 PM	Innovative Non-Genotoxic Cell and Gene Therapies for Fanconi Anemia	**Agnieszka Czechowicz** Stanford University School of Medicine, Dept of Pediatrics Div. of Stem Cell Transplantation and Regenerative Medicine, Stanford, US

KEYNOTE ADDRESS
Chair: Alok Srivastava

India Time	Title	Speaker Name
6:45 to 7:45 PM	The Concept of Innovation and Orchestration: Translating Engineered Cellular Therapies from Bench to Bedside	**Khalid Shah** Center for Stem Cell and Translational Immunotherapy, Brigham and Women's Hospital and Harvard Stem Cell Institute, Cambridge, USA

End of Day-1

DAY-2: Friday, 2nd August, 2024

Session-4: INDUSTRY UPDATES Chair: Praveen Kumar Vemula		
India Time	**Title**	**Speaker Name**
12:00 to 12:20 PM	Non-Viral Chimeric Antigen Receptor (CAR) T Cells going Viral: Process Studies from Stanford Center for Cancer Cell	**Vimal Keerthi** Stanford University School of Medicine, California, US
12: 20 to 12:40 PM	Writing the Future of Biologics with an Integrated Offering of Immunization, Libraries, and Machine Learning	**Jay Yang** Twist Bioscience, San Francisco, California, US
12:40 to 1:00 PM	Transforming Viral Vector Production: Enhancing Efficiency and Scale-Up with OmniBRx's Dynamic Bed Reactor Technology	**Ravindra Patel** OmniBRx Biotechnologies Pvt Ltd. Ahmedabad, Gujarat, India
1:00 to 2:00 PM	Lunch Break	
Session-5: APPLICATION OF IPSC TECHHNOLOGY **Chair: Maneesha S. Inamdar** **Co-Chair: Dhandapani Perundurai**		
India Time	**Title**	**Speaker Name**
2:00 to 2:30 PM	Challenges for the development of pluripotent stem cell based therapies and the role of international standards.	**Glyn Stacey** International Stem Cell Banking Initiative, Barley, UK
2:30 to 3:00 PM	Developing iPSC-derived RPE cell replacement therapy for the treatment of AMD	**Rajarshi Pal** Eyestem Research, Centre for Cellular and Molecular Platforms (C-CAMP), Bangalore, India
3:00 to 3:30 PM	Developing iPSC technologies to impact current challenges in the production of cell therapies	**Julia Neubauer** Fraunhofer Institute for Biomedical Engineering IBMT, Germany
3:30 to 3:45 PM	Break	
Session-6: GENE THERAPY **Chair: Matthew Porteus**		
India Time	**Title**	**Speaker Name**
3:45 to 4.15 PM	New insights into the use of gamma delta T cells to treat childhood cancers	**H. Trent Spencer** Emory University School of Medicine, Atlanta, USA
4:15 to 4:45 PM	Development of genome-modified generation ZZ (GenZZ) single-stranded AAV vectors with improved transgene expression	**Arun Srivastava** University of Florida, Florida, USA
4:45 to 5:15 PM	Preclinical development of gene therapy for Diamond-Blackfan anemia	**Senthil Bhoopalan** St. Jude Children's Research Hospital, Memphis, USA
5:15 to 6:00 PM	Poster presentation and Industry Exhibition	
Session-7: Challenges And Opportunities In Gene Therapy **Chair: RV Shaji**		
India Time	**Title**	**Speaker Name**
6:00 to 6:30 PM	Development of pathophysiologicallyrelevant models of β-hemoglobinopahtues for therapeutic studies	**Sivaprakash Ramalingam** CSIR–Institute Of Genomics And Integrative Biology (CSIR–IGIB), New Delhi, India
6:30 to 7:00 PM	CAR T-cell induced T-cell malignancies	**Nirali Shah** Center for Cancer Research, National Cancer Institute, Maryland, US
7:00 to 7:30 PM	Genome Editing of HSCs to Develop Stem Cell Based Therapies	**Matthew Porteus** Stanford School of Medicine, California, USA
KEY NOTE ADDRESS **Chair: Sanjay Singh**		
India Time	**Title**	**Speaker Name**
7:30 to 8:30 PM	Gene therapy for haemophilia in India – The beginning of a New Era	**Alok Srivastava** Centre for Stem Cell Research, a unit of inStem, Bengaluru and Department of Haematology, Christian Medical College, Vellore, India

End of Day-2

DAY-3: Saturday, 3rd August, 2024

Session-8: INDUSTRY UPDATES Chair: Arvind Ramanathan		
India Time	**Title**	**Speaker Name**
12:20 to 12:40 PM	Autologous CAR-T Cell Therapy Manufacturing Solution	**Pankaj Salvi** Cytiva, Marlborough, US
12:40 to 01:00 PM	Thermo Fisher Scientific: Cell & Gene Therapy capabilities overview	**Uchenna Waturuocha** Thermo Fisher Scientific, Mumbai, India
01:00 to 02:00 PM	Lunch Break	

Session-9: NON-VIRAL VECTOR BASED GENE THERAPY Chair: N. Madhusudhana Rao		
India Time	**Title**	**Speaker Name**
2:00 to 2:30 PM	Enhancing Natural killer cells proliferation and cytotoxicity using Imidazole-based lipid nanoparticles encapsulating interleukin-2 mRNA	**Chantal Pichon** INSERM and University of Orléans, Orléans, France: Institut Universitaire de France, Paris
2:30 to 3:00 PM	MSC Extracellular Vesicles: Navigating Regenerative Medicine's Therapeutic Landscape	**Sujata Mohanty** All India Institute of Medical Sciences New Delhi, India
3:00 to 3:30 PM	Long-lasting mRNA enabled protein replacement therapy with liver-specific lipid nanoparticle system: Haemophilia B as a model disease	**Srujan Marepally** Centre for Stem Cell Research (a unit of inStem, Bengaluru), Vellore, India
3:30 to 3:45 PM	Break	
3:45 to 4:30 PM	Poster presentation and Industry Exhibition	

Session-10: GENE EDITING Chair: Sanjeev Galande		
India Time	**Title**	**Speaker Name**
4:30 to 5:00 PM	Genome editing strategies for treating sickle cell disease	**Thiyagaraj Mayuranathan** Centre for Stem Cell Research (a unit of inStem, Bengaluru), Vellore, India
5:00 to 5:30 PM	Epitope Editing for an Immunotherapy "Stealth" Hematopoiesis	**Pietro Genovese** Harvard Medical School, Boston, USA
5:30 to 6:00 PM	Next-generation gene editing of human hematopoietic stem cells: from research to clinical translation	**Samuele Ferrari** San Raffaele Telethon Institute for Gene Therapy (SR-Tiget), Milan, Italy

Session-11: IMMUNE CELL THERAPY Chair: Amit Awasthi		
India Time	**Title**	**Speaker Name**
6:00 to 6:30 PM	CART Therapy in Pediatric Acute Lymphoblastic Leukemia	**Sunil Bhat** Mazumdar Shaw Medical Centre, Narayana Health City, Bangalore, India
6:30 to 7:00 PM	Development of CAR-T cell products with non-viral vector system	**Yoshiyuki Takahashi** Nagoya University Graduate School of Medicine, Nagoya, Japan
7:00 to 7:30 PM	Genetic manipulation of NK cells for enhanced immunotherapy	**Rizwan Romee** Harvard Medical School, Dana Farber Cancer Institute, Boston, USA
CONCLUDING REMARK		
End of Day-3		