HBTHA
HO CHI MINH CITY BLOOD TRANSFUSION AND HEMATOLOGY ASSOCIATION

APBMT
Asia-Pacific Blood and Marrow Transplantation Group

BTH
BLOOD TRANSFUSION HEMATOLOGY HOSPITAL

THE 30th ANNUAL CONGRESS OF ASIA-PACIFIC BLOOD AND MARROW TRANSPLANTATION GROUP

ABSTRACT BOOK

HOCHIMINH CITY, VIETNAM

September 17 th_ 20th, 2025

September 18th ,2025

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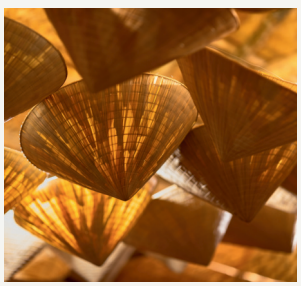

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ABOUT

APBMT

Asia-Pacific Blood and Marrow Transplantation Group

The Asia-Pacific Blood and Marrow Transplantation Group (APBMT) was initiated in 1990 to share information regarding hematopoietic stem cell transplantation and cellular therapy (HSCT/CT) and promote collaborative basic and clinical studies in the Asia-Pacific region. As of August 2024, APBMT is comprised of 23 countries/regions (Australia, Bangladesh, Cambodia, China, Hong Kong, India, Indonesia, Iran, Japan, Korea, Malaysia, Mongolia, Myanmar, Nepal, New Zealand, Pakistan, the Philippines, Singapore, Sri Lanka, Taiwan, Thailand, Uzbekistan, and Vietnam) and is leading a variety of activities regarding HSCT/CT including transplant activity survey, outcome registry, center standards, education, and publication of Blood Cell Therapy.

Alok Srivastava is Professor-Research & Head, Haematology Research Unit, St. John's Research Institute and Senior Consultant, Department of Clinical Haematology in the St. John's Medical College Hospital at Bengaluru in India. Prof. Srivastava has been involved with clinical haematopoietic stem cell transplantation (HSCT) for over three decades. He is the President of the Asia Pacific Blood and Marrow Transplant Group and President of the Indian Association for Cell and Gene Therapy. Prof. Srivastava's research interests are in haematopoietic stem cell transplantation, management of the major haemoglobin disorders, common haemostasis disorders and gene therapy. He established the Centre for Stem Cell Research (CSCR), a unit of inStem, Bengaluru at the Christian Medical College, Vellore and led it for nearly 20 years. The research at CSCR developed several novel technologies for gene therapy of inherited blood disorders including haemophilia and the major haemoglobin disorders – thalassemia major and sickle cell disease. His group reported a first-in-human clinical trial of a lentiviral vector mediated haematopoietic stem cell-based gene therapy for haemophilia A in India. He has over 425 peer-reviewed scientific publications.

HOCHIMINH CITY BLOOD TRANSFUSION – HEMATOLOGY ASSOCIATION

HO CHI MINH CITY BLOOD TRANSFUSION AND HEMATOLOGY ASSOCIATION

The Ho Chi Minh City Society of Blood Transfusion and Hematology is a professional organization affiliated with the Ho Chi Minh City Medical Association. Established in 1986, the Society has made significant contributions to the development of the healthcare sector in Ho Chi Minh City and throughout Vietnam over the past three decades.

Guided by its mission to unite and strengthen the professional community in Blood Transfusion and Hematology across various domains, the Society's members are dedicated to continuous learning and professional practice. They actively engage in advancing scientific and technical knowledge in their field, support one another in enhancing professional competencies, and adhere to ethical standards and responsibilities. Their efforts contribute positively to the protection and improvement of public health, combating diseases within a framework of advanced medical practices.

The Society is actively involved in health education across all levels and collaborates with both local and international medical and hematology associations, along with various professional groups, to advance basic and clinical research on hematological disorders and blood transfusion medicine.

Notably, over the past decade, the Society has successfully organized several international conferences featuring prominent scientists from both domestic and international backgrounds. A highlight was the APBMT Conference in 2013, which attracted 736 delegates.

BLOOD TRANSFUSION – HEMATOLOGY HOSPITAL

BTH
BLOOD TRANSFUSION
HEMATOLOGY HOSPITAL

Founded in 1975, the Ho Chi Minh City Blood Transfusion and Hematology Hospital has established itself as a leading specialized institution in Ho Chi Minh City and across Vietnam after nearly 50 years of dedicated service.

Our vision is to elevate BTH to the forefront of hematology hospitals in Vietnam, advancing all areas of specialization to meet the highest standards recognized in the region and globally.
The hospital has made substantial contributions to blood banking, stem cell banking, and the diagnosis and treatment of hematological disorders, garnering esteemed recognition from both domestic and international peers.

Our medical team includes key members of the Ho Chi Minh City Society of Blood Transfusion and Hematology, and the hospital plays a pivotal role in organizing international conferences, notably the APBMT Conference.

Dear Distinguished Delegates,

We are honored to introduce and welcome you to the 30th Annual Congress of the Asia-Pacific Blood and Marrow Transplantation Group. The congress will be held from September 17th to 20th, 2025, at the Sheraton Hotel, Ho Chi Minh City, Vietnam.

This event will provide a valuable opportunity for leading experts in the field of Bone Marrow and Blood Stem Cell Transplantation to gather, exchange knowledge, and stay updated on the latest research in a professional and modern environment. We are committed to leveraging technology to deliver rich and engaging content through scientific reports from esteemed speakers.

We hope that each delegate will actively contribute to making the congress a landmark scientific event with high-quality lectures, presentations, and materials. While the congress will be held both in person, we strongly encourage in-person attendance to maximize opportunities for networking and engaging with experts in the field.

This congress also marks a significant milestone, as it has been 12 years since Vietnam hosted the 18th APBMT Congress in 2013. Through discussions, scientific reports, and networking activities, we trust that delegates will have an excellent opportunity to learn, share, and find practical solutions to drive advancements in science and technology in the Asia-Pacific region and globally.

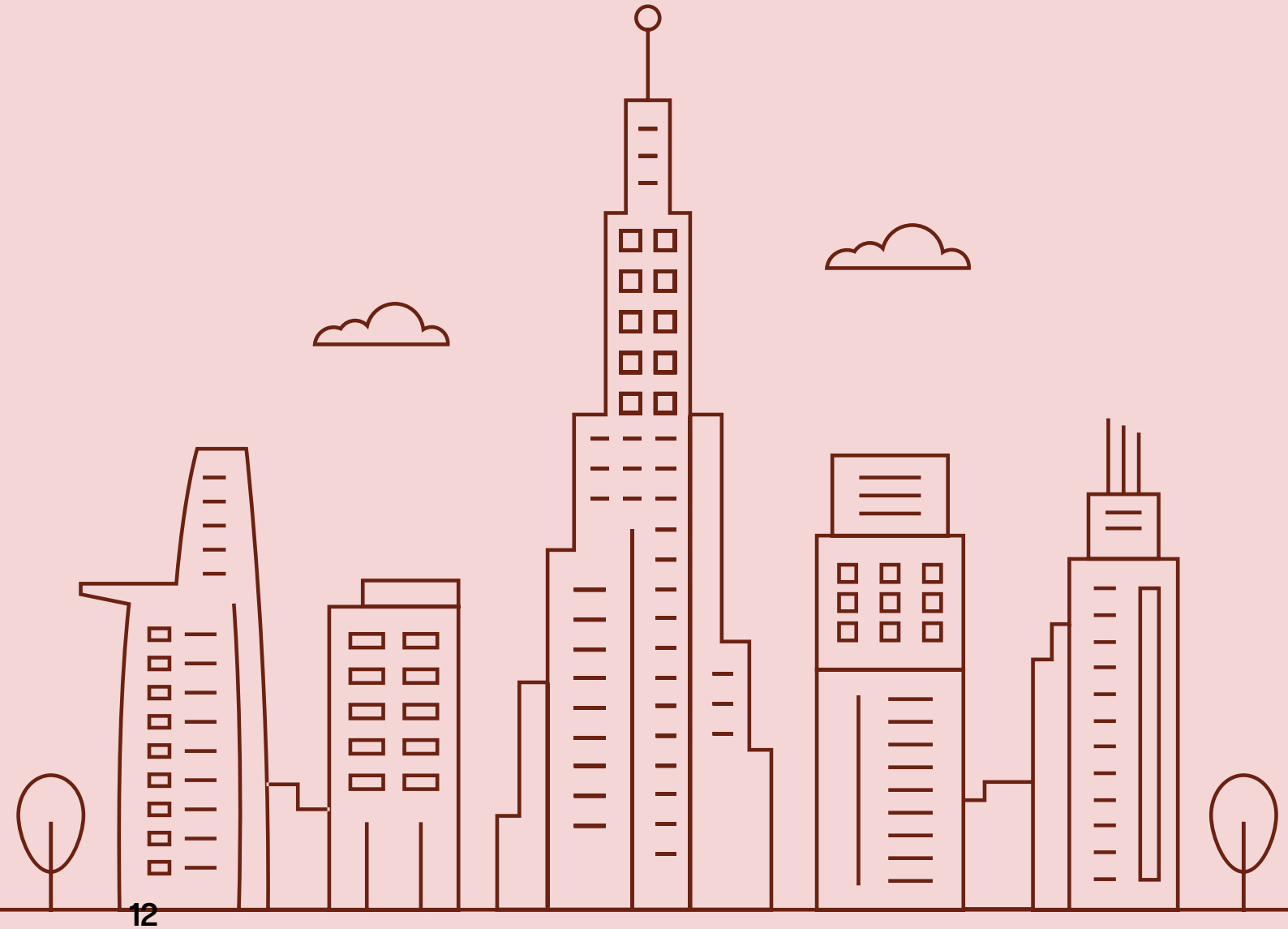
Additionally, we are delighted to introduce the beauty of Vietnam, along with its captivating tourist destinations and cuisine, to our esteemed delegates.

We sincerely invite you to participate and join us in making this congress a great success!

Kind regards.

GENERAL PROGRAM

Wednesday, September 17, 2025 Day 0			
TIME	**GALLERY HALL**		
9:45 – 10:15	Ribbon Cutting Ceremony of The Exhibition Area		
TIME	**Ballroom 1**	**Ballroom 2**	**Ballroom 3**
13:00 – 13:30			CENTER STANDARD COMMITTEE Co-chairs: Sharat Damodar
13:30 – 14:00		DONOR SAFETY WORKING GROUP Co-chairs: Yoshihisa Kodera	
14:00 – 14:30	REGISTRY COMMITTEE SESSION Co-chairs: Yoshiko Atsuta, Anthony Dodds, Aloysius Ho		
14:30 – 15:00		Coffee Break	
15:00 – 15:15			
15:15 – 16:00		CORD BLOOD TRANSPLANT WORKING GROUP Co-chairs: Satoshi Takahashi	NUTRITION MANAGEMENT SUPPORT WORKING GROUP Co-chairs: Shigeo Fuji
16:00 – 16:45	EXECUTIVE BOARD MEETING Co-chairs: Alok Srivastava		
16:45 – 17:00			
18:00 – 21:00	Gala Welcome Riverside Palace		
End of Day 0			



GENERAL PROGRAM

Thursday, September 18, 2025
Day 1

TIME	BALLROOM 1	BALLROOM 2	BALLROOM 3	VIP 3-4
07:30 – 08:00	Registration			
08:00 – 08:15	Opening Remarks			
08:15 – 10:15	**PRESIDENTIAL SYMPOSIUM** **Defining standards and accreditation of HSCT centers - Impact on quality and access** Co-chairs: Alok Srivastava, Corey Cutler, Phu Chi Dung **ASTCT Perspective** Corey Cutler, Boston **EBMT Perspective (online)** Anna Sureda, Barcelona **LABMT Perspective (online)** Cristobal Frutos, Asuncion **APBMT Perspective** Alok Srivastava, Bengaluru			
10:15 – 10:30	Coffee Break			**Nurse Session 1** **General HSCT nursing care** Co-chairs: Chiang Meng-Kuan (Anne), Vu Thi Bich Huyen **Practical experience of NP–nurse collaboration in early intervention for HSCT patients through a Rapid Response System** Aoi Kato, Kawasaki **Program to improve the quality of care and enhance the competency of stem cell transplant nurses at BTH** Ngo Thi Xuan Thao, Ho Chi Minh
10:30 – 11:15	**Plenary Session 1** **Evolution of Conditioning** Co-chairs: Takanori Teshima, Huynh Van Man **Antibody-drug conjugates targeting CD45 plus Janus kinase inhibitors effectively condition for allogeneic hematopoietic stem cell transplantation (online)** John F.DiPersio, St. Louis			
11:15 – 12:15	**MEDAC SPONSORED SYMPOSIUM** **Treosulfan** **The Future Standard in Allogenic Stem Cell Transplantation** Chairman: Aloysius Ho **Reduced-Intensity Treosulfan: Efficacy and Applications** Friedrich Stölzel, Kiel **High-Intensity Treosulfan: Efficacy and Applications** Filippo Milano, Seattle			
12:15 – 13:00	Lunch Break			

TIME	BALLROOM 1	BALLROOM 2	BALLROOM 3	VIP 3-4
13:00 – 14:30	**Session 1** **Donor Selection/ Alternative Donor SCT** Co-chairs: Shigeo Fuji, Damai Santosa **Allo-SCT in the elderly—Is there an upper limit?** Rajneesh Nath, New Brunswick **Optimizing Single Cord Blood Transplantation: Insights and Progress from Japan** Junya Kanda, Kyoto **Approach to Donor Selection in India: Registry Data** Navin Khattry, Navi Mumbai	**Session 2** **Pediatric HSCT (non-malignancy)** Co-chairs: Shanika Vitharana, Huynh Nghia **HSCT Outcomes in Pediatric Inherited Bone Marrow Failure Syndromes** Maryam Behfar, Tehran **Hematopoietic Stem Cell Transplantation for Severe Aplastic Anemia** Hyoung Jin Kang, Seoul **Primary HLH/PID (online)** Mary Slatter, Newcastle upon Tyne	**Multidisciplinary Session 1** **Laboratory** Co-chairs: TBC, Cao Sy Luan **Model-informed precision dosing of intravenous busulfan in Thai pediatric patients** Apichaya Puangpetch, Bangkok **Assessment of minimal residual disease using next-generation sequencing in acute myeloid leukemia and myelodysplastic syndromes** Phan Thi Xinh, Ho Chi Minh **The predictive value of T-cell chimerism for disease relapse after allogeneic hematopoietic stem cell transplantation (online)** Fang Zhou, Jinan	**Nurse Session 2** **Long-term follow-up care** Co-chairs: Ayako Mori, Ma Xuan Tuan **Vaccination following hematopoietic stem cell transplant** Hisayo Doi, Kobe **Long-Term Care Model for Allo-HSCT Patients via HSCT Platform** Chiang Meng-Kuan, Taipei **Long-Term Follow-Up Care After Hematopoietic Stem Cell Transplantation (online)** Min-Ji Kwak, Seoul

TIME		BALLROOM 2		VIP 3-4
14:30 – 15:30		**MILTENYI SPONSORED SYMPOSIUM** **Engineering the Future: Graft Optimization and On-Site Manufacturing in Cell and Gene Therapeutics** Coordinator: Ranga Prakash **Welcome and introduction – update on current cell and gene therapy developments in Vietnam** Nguyen Thanh Liem, Ha Noi **Ex vivo T-cell depletion and point-of-care manufacturing of donor lymphocyte infusion and haematopoietic stem cell therapy** Pamela Lee, Hong Kong **Development of CAR-T for ALL: Investigator-Initiated Trial in Korea** Hyoung Jin Kang, Seoul		**NURSE COMMITTEE MEETING** Co-chairs: Miho Suzuki, Chiang Meng-Kuan
15:30 – 15:45	Coffee Break			

TIME	BALLROOM 1	BALLROOM 2	BALLROOM 3	VIP 3-4
15:45 – 17:15	**Session 3** **Long-term follow-up** Co-chairs: TBC, Keith Fay **Multi-centre RCT of a Telehealth intervention program for BM Transplant survivors** David Ma, Sydney **Survivorship after Allogeneic Stem Cell Transplantation: Quality of Life and Factors Associated with Return to Work** Dominique Bron, Lyon **International recommendations for screening and preventative practices for long-term survivors of transplantation and cellular therapy: a 2023 update (online)** Helene Schoemans, KU Leuven	**Session 4** **CAR-T Cell Therapy** **Clinical Aspect** Co-chairs: Shaomei Feng, Phu Chi Dung **Real-world experience of sourcing & establishing CART service in a resource limited centre in our region, The Hong Kong story** Joycelyn SIM, Hong Kong **International referral and cooperation for difficult HSCT and CAR-T cell therapy: Example in Taiwan** Li Chi Cheng, Hualien **Aiming for More Appropriate Management of Complications in Chimeric Antigen Receptor (CAR-) T Cell Therapy** Naokazu Nakamura, Kyoto	**Session 5** **HSCT Complication – Infection** Co-chairs: Chin Sum Cheong, Hoang Duy Nam **Strategies for Preventing and Managing HBV Reactivation after Allogeneic HSCT** Masahiro Onozawa, Hokkaido **Granulocytes infusion for severe infection transplant patients at NIHBT** Nguyen Ba Khanh, Ha Noi **BK polyomavirus infection after hematopoietic cell transplantation** Takehiko Mori, Tokyo	**Nurse Session 3** **CAR-T cell therapy** Co-chairs: Miho Suzuki, Huynh Thien Ngon **Key Nursing Points for CAR-T Cell Therapy** Mayumi Sumita, Hokkaido **Adoptive Cellular Therapy post HSCT (online)** Pham Thi Ngoc Anh, Singapore **CAR-T Cell Therapy Experience in Taiwan (online)** Hung, Yen-Ping, Taipei

TIME	BALLROOM HALL	VIP 3-4
17:15 – 18:15	**POSTER SESSION**	**Nurse Oral Presentation** Chairman: Manisha Makwana
End of Day 1		

GENERAL PROGRAM

Friday, September 19, 2025
Day 2

TIME	BALLROOM 1	BALLROOM 2	BALLROOM 3
07:30 – 08:30	Registration		
08:30 – 10:00	**Session 6** **CAR-T Cell Therapy Laboratory aspect** Co-chairs: Yoshiki Akatsuka, Phan Thi Xinh **Development of piggyBac transposon method, a non-viral gene delivery platform, for CAR-T manufacturing for clinical trials** Yoshiyuki Takahashi, Nagoya **CAR T –Cell therapy in Resource Limited Setting** Gaurav Narula, Mumbai **Point-of-care manufacturing of CAR-T cell therapy in Vietnam: Opportunity - Challenge – Solution** Cao Sy Luan, Ho Chi Minh	**Session 7** **Pediatric HSCT (malignancy)** Co-chairs: Usanarat Anurathapan, Cai Thi Thu Ngan **CMV infection in Pediatric Hematopoietic Stem Cell Transplantation in Low & Middle-Income Countries** Hany Ariffin, Kuala Lumpur **Hematopoietic stem cell transplantation in children with acute leukemia at the Ho Chi Minh City Hematology and Blood Transfusion Hospital, Vietnam** Huynh Nghia, Ho Chi Minh **A nationwide phase II study of delayed local treatment for children with high-risk neuroblastoma: the Japan Children's Cancer Group Neuroblastoma Committee Trial JN-H-11 and JN-H-15** Kimikazu Matsumoto, Tokyo	**Multidisciplinary Session 2** **Unrelated donor registry HSCT** Co-chairs: Tsuneo Takahashi, Tran Trung Dung **Japan marrow donor program** Takahiro Fukuda, Tokyo **Is there a place for unrelated donor in HSCT in 2025?** Dominique Masson, Lyon **Donor selection in allogeneic transplantation: role of unrelated donor registries** Glen Kennedy, Brisbane
10:00 – 10:30	Coffee Break		
10:30 – 11:15	**Plenary Session 2** **Evolution of GVHD prophylaxis** Co-chairs: William Hwang, Suradej Hongeng **Allogeneic Blood or Marrow Transplantation with Post-Transplantation Cyclophosphamide** Leo Luznik, Baltimore		

TIME	VIP 3-4	Li BAI
11:30 – 12:15	**Meeting with Experts** Leo Luznik, Baltimore Corey Cutler, Boston Filippo Milano, Seattle Pamela Lee, Hong Kong Friedrich Stölzel, Kiel Takahiro Fukuda, Tokyo	**GENERAL COUNCIL MEETING** Co-chairs: Alok Srivastava
12:15 – 12:45		
11:30 – 13:00	Lunch Break	

TIME	BALLROOM 1	BALLROOM 2	BALLROOM 3
13:00 – 14:30	**ORAL PRESENTATION** Co-chairs: David Kliman	**ORAL PRESENTATION** Co-chairs: Li Chi Cheng	**Multidisciplinary Session 3** **Quality Management/FACT-JACIE/Analyzing and reporting outcomes** Co-chairs: Minako Iida, Aloysius Ho **Quality management: FACT-JACIE Standards** Mickey Koh, Singapore **Data Management of HCT Experience and Reflections** Jia Chen, Suzhou **Advancing HCT Research: Strategies for Analyzing Outcomes and Promoting Registry Studies** Yoshiko Atsuta, Nagakute
14:30 – 15:00	Coffee Break		
15:00 – 16:30	**Session 8** **Conditioning Regimen** Co-chairs: Wasanthi Wickramasinghe, Nguyen Hanh Thu **Treosulfan-based conditioning for allogeneic HSCT in children with non-malignant diseases** Ho Joon Im, Seoul **Safety and efficacy of VA combined with modified BuCy conditioning regimen followed by allo-HSCT for high-risk or refractory/relapsed acute lymphoblastic leukemia: a prospective, single-center, single-arm clinical trial (online)** Xiaowen Tang, Suzhou **Radiation-free alternative donor transplant in PID (online)** Dimana Dimitrova, Bethesda	**Session 9** **Haplo-HSCT** Co-chairs: Sharat Damodar, Phu Chi Dung **Double Down: The U.S. Haplo-Cord Experience in Allogeneic Transplantation** Filippo Milano, Seattle **Haploidentical - HSCT for malignant hematology diseases: Experience at BTH** Huynh Van Man, Ho Chi Minh **Less is More: The Evolution of PTCy Dose for Safer Allogeneic Transplantation (online)** Junichi Sugita, Sapporo	**Session 10** **Complication – GVHD** Co-chairs: Gin Gin Gan, Clinton Lewis **Low dose PT-Cy as GVHD prophylaxis** Mikhail Drokov, Moscow/Tashkent **Recent Advances in GvHD Research: From Bench to Bed** Yang Xu, Suzhou **GVHD Update EBMT Guidelines (online)** Olaf Penack, Berlin
TIME	BALLROOM 1	BALLROOM 2	BALLROOM 3
16:30 – 17:30	**POSTER SESSION**		
End of Day 2			

GENERAL PROGRAM

Saturday, September 20, 2025 Day 3			
TIME	**BALLROOM 1**	**BALLROOM 2**	**BALLROOM 3**
07:30 – 08:30	**Registration**		
08:30 – 10:00	**Session 11** **Lymphoma/Myeloma** Co-chairs: Lallindra Gooneratne, Trinh Thuy Duong **Autologous stem cell transplantation from 2011 to 2022 in Japanese patients aged ≥ 65 years with relapsed or refractory diffuse large B-cell lymphoma** Satoshi Yamasaki, Fukuoka **Advances in the management of multiple myeloma** Adam Bryant, Sydney **Revisiting the standard 200 mg/m² dose of melphalan for autologous transplant in myeloma in the era of MRD** Sumeet Mirgh, Mumbai	**Session 12** **Enhancing Access to HSCT: Establishing services with limited resources** Co-chairs: Alok Srivastava, Huynh Van Man **Experience in establishing services with limited resources** Venkatesh Ekbote, Aurangabad Abhijeet Ganapule, Kolhapur R. M. Subbaiah, Tiruchirappalli Shailesh Lavana, Gujarat	**Session 13** **Leukemia, MDS, MPN** Co-chairs: Than Hein, Ngo Ngoc Ngan Linh **Allogeneic HSCT in relapsed AML** Friedrich Stölzel, Kiel **FORUM study: HSCT in children and adolescents with acute lymphoblastic leukemia** Yves Bertrand, Lyon **Maintenance therapy after allo-HSCT for AML/MDS** Phu Chi Dung, Ho Chi Minh
10:00 – 10:30	Coffee Break		
10:30 – 11:15	**Plenary Session 3** **Artificial Intelligence in HSCT** Co-chairs: Bor-Sheng Ko, Vo Thi Thanh Truc **Hematopoietic Stem Cell Transplantation: Risk Stratification, Machine Learning, and Models** Jing Liu, Peking		
11:15 – 12:00	**AWARD ANNOUNCEMENTS AND CLOSING REMARKS**		
End of Day 3			

THE 30th ANNUAL CONGRESS OF ASIA-PACIFIC BLOOD AND MARROW TRANSPLANTATION GROUP

September 18th, 2025

CURRICULUM VITAE AND ABSTRACT

Presidential Symposium

Defining standards and accreditation of HSCT center - Impact on quality and access

Chairman: Alok Srivastava, Corey Cutler, Phu Chi Dung
Hall: GRAND BALLROOM
Time: 8:30 -10:15

01	**ASTCT Perspective** **Corey Cutler, Boston**
02	**EBMT Perspective (online)** **Ana Sureda, Barcelona**
03	**LABMT Perspective (online)** **Cristobal Frutos, Asuncion**
04	**APBMT Perspective** **Alok Srivastava, Vellore**

COREY S. CUTLER

PROF. DR. COREY S. CUTLER

ANNA SUREDA

ANNA SUREDA BALARI

FRUTOS ORTIZ, CRISTOBAL A

DR. FRUTOS ORTIZ, CRISTOBAL A, MD, MSC

ALOK SRIVASTAVA

ALOK SRIVASTAVA, MD, FRACP, FRCPA, FRCP

Corey S. Cutler

PROF. DR. COREY S. CUTLER

Professor of Medicine at Harvard Medical School and Medical Director of the Stem Cell Transplantation Program at Dana-Farber Cancer Institute.

Dr. Corey S. Cutler is a Professor of Medicine at Harvard Medical School and an Institute Physician in the Department of Medical Oncology at the Dana-Farber Cancer Institute (DFCI) in Boston, Massachusetts. He serves as the Medical Director of the Stem Cell Transplantation Program and Director of Clinical Research in the Division of Stem Cell Transplantation at DFCI. Dr. Cutler earned his MD from McGill University and later received an MPH from the Harvard School of Public Health. He completed his residency in Internal Medicine in Canada, followed by fellowship training in Hematology and Oncology at DFCI and Harvard Medical School.

An internationally recognized expert in hematopoietic stem cell transplantation, Dr. Cutler's research focuses on improving outcomes in graft-versus-host disease (GVHD), transplantation strategies for myelodysplastic syndromes, and the development of novel therapies. He has played a leading role in NIH consensus initiatives, held numerous leadership positions in professional societies such as ASTCT, and currently serves as the 2024–2025 President of the American Society for Transplantation and Cellular Therapy.

He has authored hundreds of peer-reviewed publications, led multiple clinical trials, and mentored numerous trainees. Dr. Cutler is also an elected member of the American Society for Clinical Investigation (ASCI) and serves on editorial boards for leading hematology journals.

ASTCT Perspective

The details of the report will be communicated during the conference

Anna Sureda

ANNA SUREDA BALARI

Head of the Hematology Department and Hematopoietic Stem Cell Transplant Programme. Institut Catala d'Oncologia – L'Hospitalet, Barcelona, Spain

Dr. Anna Sureda Balari is an internationally recognized expert in the field of hematology, currently serving as Head of the Hematology Department and the Hematopoietic Stem Cell Transplant Programme at the Institut Català d'Oncologia (ICO) – L'Hospitalet in Barcelona, Spain. She also holds the academic position of Associate Professor at the University of Barcelona. Her clinical and research expertise focuses on the treatment of lymphoid malignancies, particularly Hodgkin and non-Hodgkin lymphomas. Dr. Sureda has played a pivotal role in developing innovative transplant strategies and immunotherapeutic approaches, including CAR-T cell therapy, aiming to improve outcomes for patients with hematologic cancers.

Throughout her career, Dr. Sureda has made significant contributions to the advancement of supportive care and the management of transplant-related complications, enhancing the safety and efficacy of hematopoietic stem cell transplantation.

Dr. Sureda is the current President of the European Society for Blood and Marrow Transplantation (EBMT) and has previously served as President of the Spanish Group of Hematopoietic Stem Cell Transplantation and Cellular Therapy. Her leadership in these prominent organizations reflects her commitment to fostering international collaboration and innovation in hematologic research and patient care.

EBMT/JACIE Perspective on "Defining Standards and Accreditation of HSCT Centers: Impact on Quality and Access"

Hematopoietic stem cell transplantation (HSCT) has evolved into a highly specialized and life-saving therapeutic intervention for a variety of malignant and non-malignant hematological disorders. As the complexity of transplantation procedures increases, so too does the imperative to ensure standardized, high-quality care across institutions. The European Society for Blood and Marrow Transplantation (EBMT), in collaboration with the Joint Accreditation Committee of ISCT-Europe and EBMT (JACIE), has played a pivotal role in establishing and promoting comprehensive accreditation standards that encompass clinical, collection, and processing activities related to HSCT. This abstract explores the EBMT/JACIE perspective on defining and implementing these standards, assessing their impact on clinical outcomes, quality assurance, and equitable access to care.

JACIE accreditation, modeled in alignment with international best practices, has emerged as a benchmark for excellence in HSCT service delivery. Through a rigorous process of peer-reviewed audits, continual professional development, and data-driven quality improvement, the program ensures adherence to evidence-based protocols, enhancing patient safety and treatment outcomes. Numerous studies, including large-scale registry analyses conducted by EBMT, have demonstrated that JACIE-accredited centers consistently achieve better overall survival, lower transplant-related mortality, and improved management of complications compared to non-accredited centers. These outcomes underscore the critical role that structured quality frameworks play in driving superior healthcare delivery in transplantation.

Beyond clinical metrics, the EBMT/JACIE initiative has also influenced the organizational culture of transplant centers, promoting multidisciplinary collaboration, outcome transparency, and accountability. Furthermore, JACIE has served as a catalyst for the harmonization of practices across Europe and beyond, facilitating cross-border referrals, joint clinical trials, and mutual recognition of care standards. However, challenges remain in ensuring that smaller or resource-constrained centers can achieve and maintain accreditation. There is a growing recognition of the need to balance stringent quality standards with inclusivity, particularly in regions with limited infrastructure or workforce capacity.

The EBMT/JACIE perspective emphasizes that while accreditation is a key driver of quality, its broader success depends on adaptability, stakeholder engagement, and continuous support for capacity building. Efforts are ongoing to simplify compliance pathways, provide tailored support for under-resourced centers, and incorporate patient-centered measures into the accreditation model. As the landscape of HSCT continues to evolve with novel cellular therapies and personalized medicine, the EBMT and JACIE remain committed to refining accreditation standards to ensure they remain fit-for-purpose, equitable, and globally relevant. In conclusion, the EBMT/JACIE framework represents a cornerstone in the pursuit of excellence in HSCT, demonstrating that systematic standardization not only improves quality but also has the potential to expand access and equity in life-saving transplantation services.

Frutos Ortiz, Cristobal A

DR. FRUTOS ORTIZ, CRISTOBAL A, MD, MSC

Coordinator, BMT Unit Coordinator – Instituto de Prevision Social – Asuncion – Paraguay

Dr Frutos Ortiz, Cristobal A, MD, MSc is a physician-scientist and bone marrow transplantation leader based in Paraguay. He received his medical degree and completed his residencies in Internal Medicine and Hematology at Universidad Católica Nuestra Señora de la Asunción. He later earned a Master's degree in Hematopoietic Stem Cell Transplantation from the University of Valencia, Spain.

Since 2016, Dr Frutos Ortiz, Cristobal A has been instrumental in transforming Paraguay's bone marrow transplantation landscape. Motivated by poor outcomes among young AML patients, he initiated critical research that catalyzed nationwide reform and international collaboration. After training under Prof. Dietger Niederwieser in Germany, he returned to lead the development of the country's first advanced BMT programs.

Frutos Ortiz, Cristobal A currently serves as President of the Latin American Bone Marrow Transplantation Group and holds numerous scientific appointments, including with the NIH and WHO-affiliated networks. His work focuses on expanding HSCT access in low- and middle-income countries, pioneering telemedicine-based transplant models, and improving transplant standards globally.

He has authored and co-authored more than 20 peer-reviewed publications and serves as a reviewer for top-tier journals such as Lancet Hematology and Transplantation and Cellular Therapy. Frutos Ortiz, Cristobal A continues to advocate for equitable access to transplant care and training across Latin America and beyond.

Defining standards and accreditation of HSCT centers – Impact on quality and access

Accreditation by the Joint Accreditation Committee of ISCT-Europe and EBMT (JACIE) in conjunction with the Foundation for the Accreditation of Cellular Therapy (FACT) has become a cornerstone in standardizing and improving the quality of care in bone marrow transplantation (BMT) units. These accreditation systems provide a rigorous framework encompassing clinical programs, collection facilities, and processing laboratories. The standards emphasize personnel qualifications, the implementation of quality management systems (QMS), and systematic outcome measurement.

A key benefit of JACIE-FACT accreditation lies in its focus on defining, collecting, and benchmarking outcomes, such as overall survival (OS), disease-free survival (DFS), and transplant-related mortality (TRM). Participation in centralized registries like the EBMT allows accredited centers to monitor performance indicators and address deviations proactively. Published evidence supports that accredited centers often demonstrate superior clinical outcomes and more robust safety practices compared to non-accredited counterparts.

Despite its benefits, the accreditation process presents challenges including resource demands, documentation burden, and the need for cultural and administrative change. However, these efforts foster a culture of continuous quality improvement, where mortality reviews, internal audits, and patient safety become institutional priorities.

As cellular therapy advances globally, expanding accreditation to low- and middle-income countries and incorporating novel tools such as artificial intelligence and patient-reported outcomes will be crucial. JACIE-FACT accreditation not only ensures compliance with best practices but also cultivates a learning health system focused on transparency, accountability, and excellence in patient care.

Alok Srivastava

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St. John's Research Institute & St. John's Medical College Hospital
Bengaluru, Karnataka, India

Alok Srivastava is Professor-Research & Head, Haematology Research Unit, St. John's Research Institute and Senior Consultant, Department of Clinical Haematology in the St. John's Medical College Hospital at Bengaluru in India. Prof. Srivastava has been involved with clinical haematopoietic stem cell transplantation (HSCT) for over three decades. He is the President of the Asia Pacific Blood and Marrow Transplant Group and President of the Indian Association for Cell and Gene Therapy. Prof. Srivastava's research interests are in haematopoietic stem cell transplantation, management of the major haemoglobin disorders, common haemostasis disorders and gene therapy. He established the Centre for Stem Cell Research (CSCR), a unit of inStem, Bengaluru at the Christian Medical College, Vellore and led it for nearly 20 years. The research at CSCR developed several novel technologies for gene therapy of inherited blood disorders including haemophilia and the major haemoglobin disorders – thalassemia major and sickle cell disease. His group reported a first-in-human clinical trial of a lentiviral vector mediated haematopoietic stem cell-based gene therapy for haemophilia A in India. He has over 425 peer-reviewed scientific publications.

Defining standards and accreditation of haematopoietic stem cell transplant (HSCT) centres – Impact on quality and access: the Asia-Pacific perspective

A major limitation of haematopoietic stem cell transplantation (HSCT) services in many parts of the world – including some regions of Europe and North America, is the low HSCT density / million population. Though there could be many contributing factors, one of them is the lack of suitable large multispecialty hospitals capable of hosting such services and / or multi-physician teams to establish and maintain such HSCT centres. An alternative model has evolved in India over the last decade. Newly trained haematologists initiate haematology services within service hospitals of 100-200 bed strength with limited in-house multi-speciality care in smaller towns in the country and within 1-2 years of doing progress to adding HSCT to their services. These single transplant-physician HSCT services are performing 10-50 HSCTs / year, with other medical / nursing health care professional in the team but no other physician trained in HSCT. While there can be many limitations of such practices, it has helped many patients in India get access to HSCT nearer home who would otherwise never be able to travel to the larger HSCT centres in the big cities. Over a period of time, such services grow to add more HSCT trained physicians. Very significantly, the cost of HSCT including from a range of donors for allogeneic HSCT are much lower than in the bigger hospitals in India.

Once established, as best as possible within the limitations of their health care system, another challenge for HSCT services is to obtain formal accreditation as per established international norms – JACIE /FACT. The reality therefore is that <5% of HSCT centres in most low-and-middle income countries (LMIC) in Asia-Pacific, Latin America and Africa, and many in even some high-income countries (HIC) are not internationally accredited. While the value of such accreditation is the enhancement of quality of care, what happens when more than half the world is unable to comply with such standards? The alternatives include alignment with national accreditation standards for hospital services or just follow institutional norms.

The critical issue is to understand the impact on access and outcomes of HSCT services in different models of care and under different types of standardization of processes with or without formal accreditation. Such data could be extracted from pooled outcomes reports from HSCT centres – with and without formal accreditation, submitted to large outcomes registries such as the CIBMTR and EBMT registries, this should be feasible. The same can also be attempted within the less extensive data on outcomes in the APBMT and LABMT registries. From such analysis, an alternate model for access, standardization and even formal accreditation could arise.

The current model for establishing HSCT services and their accreditation process and standards need review to recognize and evolve other models within the realities of existing health care systems around the world. One size never fits all and it is the same for HSCT services.

Plenary Session 1

Evolution of Conditioning

Chairman: Takanori Teshima, Huynh Van Man
Hall: GRAND BALLROOM
Time: 10:30 -11:15

01

Antibody-drug conjugates targeting CD45 plus Janus kinase inhibitors effectively condition for allogeneic hematopoietic stem cell transplantation
John F.DiPersio, St. Louis, Missouri

JOHN F.DIPERSIO

JOHN F. DIPERSIO, MD, PHD.

John F.DiPersio

JOHN F. DIPERSIO, MD, PHD.

Department of Medicine, Siteman Cancer Center,
Washington University School of Medicine

Dr. John F. DiPersio is a globally recognized leader in hematology, oncology, and stem cell transplantation. He serves as Professor at Washington University School of Medicine in St. Louis, where he has shaped the cancer research and treatment landscape for over two decades through major leadership roles, including Chief of Oncology and Deputy Director of the Siteman Cancer Center.

Trained in internal medicine and hematology-oncology, with an MD/PhD from the University of Rochester, Dr. DiPersio has led groundbreaking work in translational medicine. His research focuses on improving outcomes in leukemia and lymphoma through cellular therapies such as CAR-T cells, gene-edited immune cells, and novel agents for stem cell mobilization and GvHD prevention. His work contributed directly to the FDA approval of several important therapies, including plerixafor, motixafortide, and ruxolitinib.

A principal investigator on multiple NIH-funded projects, including an NCI R35 Outstanding Investigator Award, Dr. DiPersio also co-founded two biotech companies—Magenta Therapeutics and WuGEN Therapeutics—bridging lab discoveries with clinical applications. He is a committed mentor and educator, recipient of numerous honors including the ASH Mentor Award, AACR Burchenal Award, and the 2024 E. Donnall Thomas Award from ASTCT.

Antibody-drug conjugates targeting CD45 plus Janus kinase inhibitors effectively condition for allogeneic hematopoietic stem cell transplantation

Allogeneic hematopoietic stem cell transplantation (allo-HSCT) holds great potential for curing numerous malignant and non-malignant hematologic diseases. However, conventional chemotherapy- and irradiation-based transplant conditioning regimens impose severe toxicity risks to patients, barring their access to this lifesaving therapy. Even antibody-drug conjugates (ADC) carry significant toxicity risks due to exposure to the extremely toxic compounds used as ADC payloads. Non-malignant diseases provide the ideal application for minimally toxic HSCT conditioning since the antitumor benefit and full donor chimerism enabled by high-intensity cytotoxic regimens are not necessary for cure. We hypothesized that naked antibody-based conditioning can achieve the therapeutic benefits of allo-HSCT for classical hematologic diseases while obviating exposure to cytotoxic agents. By combining stem cell niche depletion using anti-CD47 plus anti-CD117 (c-Kit) with immunosuppression with Janus kinase 1/2 (JAK1/2) inhibitors, we achieved stable multilineage engraftment in fully MHC-mismatched murine allo-HSCT. The near complete donor chimerism among granulocytes (95-99%) enabled correction of phagocyte oxidase function in the gp91phox$^{-/-}$ model of chronic granulomatous disease. In summary, the novel combination of CD47 and c-Kit antibodies with JAK1/2 inhibition permits HSCT across immunological barriers with robust conversion to donor hematopoiesis and, most notably, requires no exposure whatsoever to radiation, chemotherapy, or toxic ADC payloads. Recently, we have developed novel small molecule VLA-4 inhibitors that synergize with plerixafor or the higher-affinity CXCR4 antagonist motixafortide to mobilize stem cells in mouse and macaque models. We will present data demonstrating that the Townes SCD model is highly amenable to PBSC harvest for gene editing and transplantation studies, including integration with our ongoing studies into minimally toxic, antibody-based transplant conditioning.

Nurse Session 1

General HSCT nursing care

Chairman: : Chiang Meng-Kuan (Anne), Vu Thi Bich Huyen
Hall: VIP 3-4
Time: 10:30 -11:15

01

Practical experience of NP–nursecollaboration in early intervention for HSCTpatients through a Rapid Response System
Aoi Kato, Kawasaki

02

Program to improve the quality of care and enhance the competency of stem cell transplant nurses at BTH
Ngo Thi Xuan Thao, Ho Chi Minh

AOI KATO

AOI KATO, NP, MSC

NGO THI XUAN THAO

NGO THI XUAN THAO, NP

Aoi Kato

AOI KATO, NP, MSC

NP, Hematology Dept., St. Marianna Univ. Hospital

Ms. Aoi Kato is a certified Nurse Practitioner currently working in the Hematology Department at St. Marianna University Hospital in Kanagawa, Japan. With over 15 years of diverse clinical experience, she has developed expertise in acute and critical care, including roles in emergency medicine, cardiology, intensive care, and hematology.

She holds a Master's degree in Health and Welfare Studies with a specialization in Nurse Practitioner training from the International University of Health and Welfare (2022). Her foundational nursing education was completed at Sugimori Girls' High School in Fukuoka, with both basic and advanced nursing coursework.

Ms. Kato has served in several key medical institutions within the Tokushukai Medical Corporation network, including Shonan Kamakura General Hospital and Fukuoka Tokushukai Hospital. Her responsibilities have ranged from working in ICUs and surgical wards to emergency care settings, building a strong foundation for her current advanced practice role.

In addition to her clinical contributions, she has been a member of the Japan Disaster Relief Team (JDR) since 2017, and was dispatched to Myanmar in April 2025 for humanitarian response following a major earthquake.

She is certified by the Japan Council of Graduate Schools of NP Education and has been a licensed Registered Nurse since 2008. Ms. Kato remains committed to improving patient outcomes and advancing nursing practice through continuous learning, cross-disciplinary collaboration, and global engagement.

Practical experience of NP–nursecollaboration in early intervention for HSCTpatients through a Rapid Response System

Hematopoietic stem cell transplantation (HSCT) is vital for hematologic diseases, but patient decline affects outcomes. Rapid Response System (RRS) helps improve survival. At our hospital, NP involvement in RRS enables teamwork and quick responses for HSCT patients.

NGO THI XUAN THAO

NGO THI XUAN THAO, NP

Blood Transfusion Hematology Hospital

Ms. Ngo Thi Xuan Thao graduated from the Ho Chi Minh University of medicine and Pharmacy in 2005, and worked as a nurse in Blood Tranfusion Hematology Hospitai in 2005. Ms. Ngo Thi Xuan Thao, a dedicated and enthusiastic nurse, working at Blood Transfusion Hematology Hospital, Ho Chi Minh City, Vietnam.

Ms. Thao has about 20 years of experience working in the field of Oncology nursing and has a lot of experience in stem cell transplant care for children. Currently, she is the head nurse of our hospital's stem cell transplant department. Ms. Thao has been actively participating in training for nurses staffs in her department and many nurses from other hospitals in Vietnam come to our hospital to learn about HSTC nursing and Oncology nursing. She is a person with a high spirit of learning and striving to improve herself. She also has several researches in Oncology nursing field.

Program to improve the quality of care and enhance the competency of stem cell transplant nurses at the Ho Chi Minh City Hematology and Blood Transfusion Hospital

Transplant nursing plays an important role in the success of a patient's stem cell transplant.

In collaboration with the Vietnamese transplant nursing team, we have implemented a project to improve the quality of transplant care through enhancing the capacity and knowledge of transplant nurses through the following activities:

Participating in training sessions with the guidance of foreign experts, sharing experiences between other transplant centers

Participating in conferences and seminars

Develop a training module for HSCT nurses in our hospital.

Implementing training programs as well as assessing knowledge and capacity for transplant nurses. After 3 years of implementation, we have achieved certain results: building a training module for transplant nurses at hospitals and in Ho Chi Minh City, improving knowledge and professionalism for transplant nurses.

MEDAC SPONSORED SYMPOSIUM

Chairman: Aloysius Ho
Hall: BallRoom
Time: 11:15 - 12:15

01

Conditioning regimens for elderly patientswith AML/MDS
Friedrich Stölzel, Kiel

02

High-Intensity Treosulfan: Efficacy and Applications
Filippo Milano, Seattle

FRIEDRICH STÖLZEL

FRIEDRICH STÖLZEL, MD, PROF. DR

FILIPPO MILANO

FILIPPO MILANO, MD, PHD

Friedrich Stölzel

FRIEDRICH STÖLZEL, MD, PROF. DR

Chair for Stem Cell Transplantation and Cellular Immunotherapies, Christian-Albrechts-University, Kiel, Germany
Division Chief Stem Cell Transplantation and Cellular Immunotherapies, University Hospital Schleswig-Holstein, Kiel, Germany

Prof. Dr. Friedrich Stölzel, MD: Chair of Stem Cell Transplantation and Cellular Immunotherapies, Christian-Albrechts-University, Kiel, Germany
Division Chief, Stem Cell Transplantation and Cellular Immunotherapies, University Hospital Schleswig-Holstein, Kiel, Germany

Prof. Dr. Friedrich Stölzel is a leading expert in the field of haematology, with a specialized focus on acute leukemias and cellular immunotherapies. He currently holds dual roles as Chair of Stem Cell Transplantation and Cellular Immunotherapies at the Christian-Albrechts-University in Kiel, and as Division Chief of the same specialty at the University Hospital Schleswig-Holstein.

A seasoned clinical researcher, Prof. Stölzel serves as the Principal Investigator for two major clinical trials: PIVOT (TUD-PIVOT1-085) and ETAL5/RELEVANT (TUD-ETAL-5-084), both of which play a pivotal role in advancing therapeutic strategies in leukemia treatment and cellular therapy.

His career is distinguished by leadership in academic medicine and innovation in cellular therapies. His research and clinical programs continue to shape the future of hematologic oncology and stem cell transplantation.

Conditioning regimens for elderly patientswith AML/MDS

Conditioning therapyas a preparative regimen for allogeneic hematopoietic stem-cell transplantation (HSCT) is not only one of the major determining components for the success of allogeneic transplantation but also the backbone of the procedure determining an important part of transplantation-related mortality. While conditioning regimens seek to fulfil a combination of antileukemic effects, create space for the allograft, and fulfil immunosuppressive features thus providing an environment for a successful allogeneic HSCT, these regimens have changed over the last years. The extension of the prior established understanding that conditioning regimens can be classified into myeloablative conditioning (MAC), reduced-intensity conditioning (RIC), and non- myeloablative conditioning (NMA) have changedinto a perception that conditioning regimens should be considered in a more gradual and personalized manner. Especially the fine-tuning and individualization of conditioning which also takes into account which respective partner for immunosuppressive prophylaxis (ISP) is used, receives more attention. Insights from the results of clinical trials, and data from retrospective registries as well as retrospective real-world data have shaped our understanding and improvedhow to perform conditioning therapyin patients with acute myeloid leukemia (AML) or myelodysplastic syndrome (MDS) recently. However, this is an ongoing endeavor since there is still room for improvement for patients undergoing allogeneic HSCT. In this symposium, I will review and discussrecent results for a) de-intensification of conditioning regimens, b) adjustment of conditioning regimens, c) component change of conditioning regimens, and c) strategic change of conditioning regimens in the combination with drugs enhancinganti-leukemic effects and/or graft-versus-host disease (GvHD) prophylactic properties.

Filippo Milano

FILIPPO MILANO, MD, PHD

Fred Hutchinson Cancer Center: Associate Professor, Director Cord Blood Transplantation Program, Scientific Director Cellular Therapy Lab

Dr. Filippo Milano is an internationally recognized hematologist and physician-scientist specializing in hematopoietic stem cell transplantation and cellular immunotherapy. He received his M.D. and Ph.D. in Hematology Sciences from the University “La Sapienza” of Rome, Italy, graduating with highest honors. After completing postdoctoral and clinical fellowships at the University of Washington and Fred Hutchinson Cancer Center, he rapidly advanced to his current leadership roles.

Dr. Milano has pioneered research in cord blood transplantation, with a particular focus on improving transplant outcomes for patients with high-risk hematologic malignancies. He has served as Principal Investigator on numerous clinical trials including early-phase studies of ex vivo expanded progenitor cells, treosulfan-based conditioning regimens, and CRISPR-edited CAR-T therapies. His clinical innovations have significantly expanded transplant access for ethnically diverse and high-risk patient populations.

He has authored over 150 peer-reviewed publications in top-tier journals including NEJM, Blood, and JCO, and has received multiple awards for excellence in research, mentorship, and education. He actively serves on scientific committees of ASH, ASTCT, CIBMTR, and HRSA, contributing to policy, guidelines, and the development of future therapies. A passionate advocate for diversity in science and medicine, Dr. Milano leads mentorship programs for underrepresented students and promotes equity in donor access.

High-Intensity Treosulfan: Efficacy and Applications

Haplo-cord transplantation, the combination of a haploidentical donor graft with an umbilical cord blood graft, was developed to overcome the limitations of each individual platform. In the United States, this approach has been adopted to provide rapid hematopoietic recovery from the haploidentical graft, while preserving the long-term engraftment and favorable graft-versus-leukemia properties of cord blood. Over the past decade, haplo-cord has been applied in diverse patient populations, including those with high-risk hematologic malignancies and individuals from minority backgrounds with limited donor availability. Clinical experience has highlighted unique engraftment dynamics, characterized by early haploidentical “bridging” followed by durable cord blood dominance. This strategy has mitigated the problem of delayed recovery traditionally associated with cord blood transplantation, while maintaining low rates of graft-versus-host disease and extending access to transplantation. The presentation will review the U.S. experience with haplo-cord transplantation, emphasizing the biological principles, patterns of engraftment, and the clinical lessons learned. This body of work will explore the value of haplo-cord as a viable alternative donor platform and a meaningful contribution to expanding the field of allogeneic transplantation.

Session 1

Donor Selection/ Alternative Donor SCT

Co-chairs: Shigeo Fuji, Damai Santosa
Hall: BALLROOM 1
Time: 13:30 -14:30

01

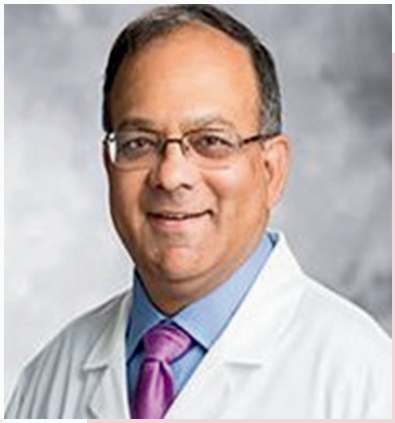
Allo-SCT in the elderly—Is there an upper limit?
Rajneesh Nath, New Brunswick

02

Optimizing Single Cord Blood Transplantation: Insights and Progress from Japan
Junya Kanda, Kyoto

03

Approach to Donor Selection in India: Registry Data
Navin Khattry, Navi Mumbai



RAJNEESH NATH

RAJNEESH NATH, MD

JUNYA KANDA

JUNYA KANDA, MD, PHD

NAVIN KHATTRY

DOCTOR. NAVIN KHATTRY

Rajneesh Nath

RAJNEESH NATH, MD

Director of Research , Blood and Marrow Transplantation,
Clinical Professor of Medicine, Rutgers Cancer Institute,
New Jersey, USA

Dr. Rajneesh Nath is a dedicated medical oncologist with over a decade of experience in the treatment of various malignancies. He currently serves as a Consultant in the Department of Medical Oncology at Sir H. N. Reliance Foundation Hospital and Research Centre, Mumbai. His clinical focus includes solid tumors, hematologic malignancies, and supportive care in oncology. Dr. Nath earned his MBBS from West Bengal University of Health Sciences, followed by a residency in Internal Medicine. He then completed his DM in Medical Oncology at Gujarat Cancer and Research Institute, Ahmedabad, one of India's premier oncology training centers.

Throughout his career, Dr. Nath has shown strong commitment to patient-centered cancer care, as well as a deep interest in academic research and clinical trials. He has participated in several national oncology conferences and has contributed to multidisciplinary care teams in both public and private institutions. His expertise spans chemotherapy, immunotherapy, and targeted therapy, with a particular interest in personalized treatment approaches.

In addition to clinical duties, Dr. Nath actively engages in continuing medical education, and is passionate about integrating the latest advancements in cancer treatment into daily practice.

Allo-SCT in the elderly—Is there an upper limit?

Allogeneic stem cell transplantation (allo-SCT) remains the only potentially curative option for many hematologic malignancies. Given that the median age at diagnosis for these malignancies is approximately 70 years, the role of transplantation in older adults is of increasing relevance. However, most patients over the age of 70—particularly those with comorbidities—are not offered allo-SCT due to concerns about increased treatment-related mortality (TRM) and suboptimal outcomes. As a result, only about 10% of all allogeneic transplants reported to national and international registries are performed in this age group, reflecting significant underutilization of a potentially life-saving therapy.

Over the past two decades, advances in transplant strategies have improved safety and feasibility in older adults. The adoption of reduced-intensity conditioning (RIC) regimens has significantly lowered TRM. Furthermore, the incorporation of post-transplant cyclophosphamide (PTCy)-based graft-versus-host disease (GVHD) prophylaxis has revolutionized GVHD prevention, resulting in substantial reductions in both acute and chronic GVHD. These developments have collectively broadened the candidacy for allo-SCT among elderly patients.

This presentation will provide a historical overview of allo-SCT in the elderly, with a focus on how transplant regimens, GVHD prophylaxis, and supportive care strategies have evolved. The presenter will also share institutional data from a cohort of patients aged 70 years and older who underwent allo-SCT using Melphalan based RIC regimens and PTCy-based GVHD prophylaxis. These data will highlight that, with careful patient selection and current transplant strategies, allo-SCT can be safely and effectively extended to older patients with hematologic malignancies, challenging the traditional age-based limitations.

Junya Kanda

JUNYA KANDA, MD, PHD

Lecturer, Department of Hematology, Graduate School of Medicine, Kyoto University

Dr. Junya Kanda is a distinguished hematologist and clinical researcher currently serving as Lecturer in the Department of Hematology at the Graduate School of Medicine, Kyoto University, Japan. With over two decades of academic and clinical experience, Dr. Kanda has established himself as a key expert in hematopoietic stem cell transplantation, graft-versus-host disease (GVHD), HLA matching, and cellular therapy.

He received his medical degree from Kyoto University in 2000, and later completed his PhD in Hematology and Oncology at the same institution. His career has spanned several prominent roles, including clinical fellowships in Osaka and Kyoto, research positions in Tokyo and the United States (Duke University), and academic appointments at Jichi Medical University and Kyoto University.

Dr. Kanda's research has made significant contributions to the field of transplantation immunology. He has published extensively on topics such as cord blood transplantation, donor selection strategies, immunogenetic factors influencing GVHD, and the application of machine learning in transplant outcome prediction. His recent work includes groundbreaking clinical studies on HLA epitope matching and stem cell source optimization.

He is an active member and councilor in numerous national and international scientific societies, including the Japanese Society of Hematology, the Japan Society for Transplantation and Cellular Therapy, and the American Society of Hematology. His excellence in research has been recognized with multiple awards, including the AACR Scholar-in-Training Award and several Young Investigator Awards in Japan.

Dr. Kanda also serves on editorial boards of several peer-reviewed journals and continues to lead influential studies shaping the future of hematopoietic cell transplantation in Asia and worldwide.

Optimizing Single Cord Blood Transplantation: Insights and Progressfrom Japan

Umbilical cord blood transplantation (UCBT) has played an important role in hematopoietic stem cell transplantation in Japan, with continuous improvements over the past two decades. This presentation provides an overview of recent advances in single- unit cord blood transplantation (sUCBT) in Japan and highlights similarities and differences compared to practices in the United States and Europe.

In Japan,the utilization rate of cord blood is remarkably high,with approximately 75% of units used within one year of release. Advances in unit selection criteria, conditioning regimens, and supportive care have significantly improved early survival and engraftment rates, resulting in reduced non-relapse mortality (NRM) within 100 days post-transplant. Notably, the introduction of the FluBu12.8Mel80 conditioning regimen has achieved better disease control and overall survival in patients with non-remission myeloid malignancies, outperforming conventional myeloablative approaches.

Comparative studies, including large-scale registry analyses and international collaborations, have shown that outcomes for sUCBT in Japan are comparable to or even better than those in Europe. Additionally, when compared to other alternative donor sources such as PTCy-haploidentical transplantation, UCBT demonstrates a favorable relapse profile while maintaining similar overall and relapse-free survival rates.

Interestingly, mild acute GVHD appears to confer survivalbenefits uniquely in UCBT cohorts, especially among Japanese patients.

Despite minor differences in transplant practicesand drug availability, the fundamental principles of cord blood selection and conditioning are largely aligned internationally, supporting global sharing of strategies and outcomes. In conclusion, with appropriate graft selection and optimized regimens, UCBT remains a strong option for patients lacking matched donors, particularly those with high-risk hematologic malignancies.

Ongoing collaborative research is essential to further refine these strategies and fully realize the potential of cord blood as a valuable stem cell source worldwide.

Navin Khattry

DOCTOR. NAVIN KHATTRY

Professor, Dept of Medical Oncology, ACTREC, Tata Memorial Centre

Dr Navin Khattry completed his MBBS from Calcutta Medical College, Kolkata, followed by MD in Internal Medicine from PGIMER, Chandigarh and DM in Medical Oncology at AIIMS, New Delhi. He was awarded the Shakuntala Jolly Gold Medal for the best student in Oncology for the year 2005.

He further trained in BMT for a year and half at the Bristol Royal Hospital for Children and then joined Tata Memorial Centre, Mumbai, as an Assistant Professor in 2007.

He was instrumental in setting up the Bone Marrow Transplant Programme and Adult Haematolymphoid Unit at Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), Kharghar, Navi Mumbai (a unit of Tata Memorial Centre) and has recently assisted in the establishment of the Cellular Therapy Programme at ACTREC with help of his colleagues.

He is also the Honorary Secretary of the Marrow Donor Registry India (an Unrelated Donor Registry) and is currently the President of Indian Society for Blood and Marrow Transplantation (ISBMT).He also serves as a member of committees of various international organisations such as Asia Pacific Blood and Marrow Transplantation (APBMT) Group, American Society of Transplantation and Cellular Therapy (ASTCT) and Asian Cellular Therapy Organisation (ACTO).

Currently, he is the Deputy Director of the Clinical Services at ACTREC, involved in setting up large clinical centres within the ACTREC Campus. He has been a mentor to many students in the field of haemato-oncology in the country and has received several awards for his work in this field. He has authored more than 100 publications in peer reviewed journals and has written chapters in several text books related to haemato-oncology and BMT.

Approach to Donor Selection in India: Registry Data

The details of the report will be communicated during the conference

Session 2

Pediatric HSCT (non-malignancy)

Chairman: Shanika Vitharana, Huynh Nghia
Hall: BALLROOM 2
Time: 13:30 -14:30

01

Challenging the Odds: Hematopoietic Stem Cell Transplantation Outcomes in Pediatric Inherited Bone Marrow Failure Syndromes
Maryam Behfar, Tehran

02

Hematopoietic stem cell transplantation for severe aplastic anemia
Hyoung Jin Kang, Seoul

03

Primary HLH/PID (online)
Mary Slatter, Newcastle upon Tyne

MARYAM BEHFAR

DOCTOR. MARYAM MOATTARI, MD

HYOUNG JIN KANG

HYOUNG JIN KANG, M.D., PH.D.

MARY SLATTER

PROFESSOR MARY ANNE SLATTER MB, CHB, FRCPCH, PHD, PG CERT CLIN LEADERSHIP

Maryam Behfar

DR. MARYAM MOATTARI, MD

Ali Asghar Children's Hospital, Iran University of Medical Sciences, Tehran, Iran

Dr. Maryam Moattari is a dedicated pediatric hematologist-oncologist with extensive clinical and academic experience in the diagnosis and management of childhood hematologic malignancies and non-malignant blood disorders. She currently practices at Ali Asghar Children's Hospital, affiliated with Iran University of Medical Sciences, one of the country's leading centers for pediatric care and medical education.

Dr. Moattari received her MD degree from Shiraz University of Medical Sciences, followed by residency training in pediatrics and a subspecialty fellowship in pediatric hematology-oncology. She has since become a vital part of multidisciplinary teams providing specialized care in leukemia, lymphoma, bone marrow failure syndromes, and supportive therapy in pediatric oncology.

In addition to her clinical work, Dr. Moattari is actively involved in academic teaching and mentoring of medical students and residents. She has presented at national and international conferences, contributed to clinical guideline development, and maintains a strong interest in collaborative research, particularly in areas such as transfusion medicine, infections in immunocompromised children, and long-term outcomes of cancer treatment.

Her compassionate approach, clinical expertise, and commitment to continuous learning make her an influential figure in advancing pediatric hematology and oncology care in Iran and the region.

Challenging the Odds: Hematopoietic Stem Cell Transplantation Outcomes in Pediatric Inherited Bone Marrow Failure Syndromes

Background: Inherited bone marrow failure syndromes (IBMFS), such as Fanconi anemia (FA), dyskeratosis congenita (DKC), and Diamond-Blackfan anemia (DBA), are rare genetic disorders characterized by defective hematopoiesis and pose significant challenges in pediatric hematology due to their progressive bone marrow failure and predisposition to malignancies. Hematopoietic stem cell transplantation (HSCT) remains the only curative option for these patients, yet its efficacy and complications in this population require detailed evaluation.

Methods: A retrospective analysis was conducted on 66 pediatric patients undergoing HSCT at the Children's Medical Center in Tehran, Iran, from January 2017 to January 2024. In all patients except those with Fanconi anemia, non-total-body irradiation (non-TBI) myeloablative conditioning (MAC) based on intravenous (IV) busulfan was employed. For Fanconi anemia patients, from 2017-2020, we used non-myeloablative conditioning consisting of oral Busulfan and cyclophosphamide with or without anti-thymocyte globulin (ATG). After 2020, non-myeloablative conditioning based on fludarabine was utilized.

Results: The study cohort comprised 56.7% male patients, with a median age at transplantation of 7.08 years [range: 1–17]. Fanconi anemia accounted for 79.1% of the study population. Grafts were primarily sourced from peripheral blood (76.1%). Donors were predominantly other related donors (34.3%), followed by sibling donors (31.3%). Fully matched transplants constituted 83.6% of cases.

The median number of infused mononuclear cells (MNC), CD34+, and CD3+ were 8.00×10^8, 4.95×10^6, and 316×10^6 CD3+ cells/kg. Neutrophil and platelet engraftment occurred at median times of 12 and 14 days, respectively. Primary engraftment was achieved in all patients except one.

Post-transplant complications included cytomegalovirus (CMV) infection in 36 patients (53.7%), acute graft-versus-host disease (GvHD) in 65.7% (with 29.8% experiencing grade III or higher), and hemorrhagic cystitis in 34.3%. During follow up autoimmune complications and chronic GvHD occurred in 1.5% and 31.4% of patients, respectively. Stable mixed chimerism was observed in 6% of patients. Secondary graft failure requiring retransplantation affected five patients (7.5%).

The 1-year overall survival (OS) was 90.5%, and the 2-year OS was 81.6%, with infections and GvHD as the primary causes of death.

Conclusion: HSCT offers a viable curative approach for pediatric IBMFS, achieving high engraftment rates and acceptable survival outcomes. However, the high incidence of GVHD and CMV reactivation underscores the need for refined conditioning regimens and enhanced post-transplant care. The predominance of FA in this cohort highlights disease-specific challenges, suggesting that tailored protocols may improve outcomes. Future research should focus on optimizing donor selection, minimizing GVHD, and exploring novel immunosuppressive strategies to enhance long-term survival and quality of life in these vulnerable patients.

Hyoung Jin Kang

HYOUNG JIN KANG, M.D., PH.D.

Department of Pediatrics, Cancer Research Institute, Seoul National University College of Medicine, Seoul National University Children's Hospital

Dr. Hyoung Jin Kang is a leading pediatric hematologist-oncologist with over 25 years of clinical, academic, and research experience in childhood leukemia, stem cell transplantation, and cellular and gene therapy. He earned his MD, Master's in Pediatrics, and PhD in Molecular and Clinical Oncology from Seoul National University College of Medicine, followed by advanced training at Baylor College of Medicine, USA.

Currently serving as Professor of Pediatrics at Seoul National University College of Medicine and Chief of the Children and Adolescent Cancer Center, Dr. Kang has held numerous leadership roles, including Chair of multiple national working parties on acute lymphoblastic leukemia and immune cell/gene therapy, Vice President of the Korean Society of Gene and Cell Therapy, and member of international advisory committees such as the International Society of Pediatric Oncology.

His contributions include over 150 peer-reviewed SCI(E) publications, pioneering work in reduced-toxicity conditioning regimens for stem cell transplantation, and advancements in pediatric cellular immunotherapy. He has been recognized with multiple national and international awards, including the Minister of Health and Welfare Award (2016, 2022, 2024) for outstanding achievements in health and medical technology development.

Hematopoietic stem cell transplantation for severe aplastic anemia

Hematopoietic stem cell transplantation (HSCT) using a matched related donor (MRD) is considered a curative therapy for severe aplastic anemia (SAA). Cyclophosphamide-based conditioning combined with anti-thymocyte globulin (ATG) is generally regarded as the optimal regimen for HSCT with an MRD. However, outcomes in patients over 40 years of age have been less favorable, making the best first-line treatment option debatable. This has often led to the selection of immunosuppressive therapy (IST) over HSCT with an MRD.

For patients without a suitable MRD, IST—typically consisting of ATG and cyclosporine (CSA)—remains the standard first-line treatment. Nonetheless, with advancements in transplantation techniques, such as the incorporation of fludarabine and/or low-dose total body irradiation in conditioning regimens to reduce graft failure, promising results have emerged for HSCT using matched unrelated donors (MUD), particularly in pediatric SAA cases. These outcomes have been comparable to those achieved with MRD transplants.

The donor pool has expanded further, and recent studies have reported encouraging results for HSCT using haploidentical donors in SAA patients lacking both MRD and MUD options.

To improve HSCT outcomes for SAA, several factors must be optimized: conditioning regimens, ATG administration, donor selection, HLA matching, stem cell source, graft-versus-host disease (GVHD) prophylaxis, and supportive care. Additionally, careful consideration of short- and long-term complications—including abnormal immune reconstitution, nonmalignant organ or tissue dysfunction, delayed infections, and secondary malignancies—is essential.

Mary Slatter

PROFESSOR MARY ANNE SLATTER MB, CHB, FRCPCH, PHD, PG CERT CLIN LEADERSHIP

Consultant in & Clinical Programme Director - Paediatric HSCT, Great North Children's Hospital, The Newcastle upon Tyne Hospitals NHS Foundation Trust
Honorary Professor, Translational and Clinical Research Institute, Newcastle University, UK

Professor Mary Slatter is an internationally recognized leader in pediatric hematopoietic stem cell transplantation (HSCT), with over 25 years of experience treating children with inborn errors of immunity. She currently serves as Clinical Programme Director for Paediatric HSCT and Consultant Paediatrician at the Great North Children's Hospital, as well as Honorary Professor at Newcastle University's Translational and Clinical Research Institute.

Her career has been defined by pioneering contributions to clinical care, education, and research. She has led significant advancements in conditioning regimens for immunodeficiencies—most notably introducing Treosulfan as a less toxic alternative to Busulfan—and helped establish CD3+ TCRαβ/CD19-depleted haploidentical transplantation, greatly improving donor availability and outcomes. These innovations have shaped national and international transplant guidelines. Prof. Slatter leads on clinical governance and service development for one of the UK's foremost pediatric transplant centers. She plays a pivotal role in training the next generation of transplant physicians, supervising PhD students and international fellows, and contributing to national and European networks. She is a core member of the Inborn Errors Working Party (IEWP) of the EBMT, and frequently invited as faculty at prestigious meetings such as EBMT, ESID, UKPIN, and ISBMT.

Her research portfolio includes participation in and leadership of multiple Phase 1–3 clinical trials, including studies on base-edited CAR T cells for leukemia and gene-modified T cells for post-transplant immune reconstitution. She is UK Chief Investigator or Principal Investigator for several multicenter international studies and has authored numerous high-impact publications in journals such as Blood, Bone Marrow Transplantation, and Frontiers in Immunology.

Professor Slatter's work continues to influence practice in pediatric transplantation worldwide, driving forward safe, effective, and personalized care for children with rare immune disorders.

Primary HLH/PID

Primary HLH is caused by a group of genetic mutations associated with immune dysfunction which lead to persistent activation of cytotoxic T, NK cells and macrophages and cytokine storm. Allogeneic HSCT can effectively control the development of primary HLH and early genetic testing to identify gene abnormalities for diagnosis is recommended. Treatment to control excessive inflammation is of paramount importance prior to replacing the defective immune system by HSCT. Use of newer agents such as alemtuzumab, targeting cytokines and JAK/STAT blockade are promising approaches in addition to the traditional HLH 2004 protocol. Improvements in controlling the disease prior to HSCT and advances in techniques for HSCT have resulted in much better outcomes. Lack of a fully tissue-type matched donor is nolonger a barrier to HSCT in specialised centres.

Multidisciplinary Session 1 Laboratory

Co-chairs: TBC, Cao Sy Luan
Hall: BALLROOM 3
Time: 13:00 - 14:30

01

Model-informed precision dosing of intravenous busulfan in Thai pediatrics patients

Apichaya Puangpetch, Bangkok

02

The predictive value of T-cell chimerism for disease relapse after allogeneic hematopoietic stem cell transplantation

Fang Zhou, Jinan

03

Assessment of minimal residual disease using next-generation sequencing in acute myeloid leukemia and myelodysplastic syndromes

Phan Thi Xinh, Ho Chi Minh

APICHAYA PUANGPETCH

ASSOCIATE PROFESSOR
DR. APICHAYA PUANGPETCH

PHAN THI XINH

ASSOC. PROF. PHAN THI XINH, M.D., PH.D

FANG ZHOU

FANG ZHOU, M.D., PROFESSOR

Apichaya Puangpetch

ASSOCIATE PROFESSOR
DR. APICHAYA PUANGPETCH

Lecturer in Subdivision of Pharmacogenomics and Personalized Medicine, Department of Pathology, Faculty of Medicine, Ramathibodi Hospital, Mahidol University

Dr. Apichaya Puangpetch is an Associate Professor and researcher in the Department of Pathology at the Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Thailand. She received her Ph.D. in Medical Microbiology from Khon Kaen University, with research training at Dalhousie University in Canada, supported by a Royal Golden Jubilee PhD Scholarship.

Her academic journey has been marked by a strong focus on pharmacogenomics, population pharmacokinetics, and therapeutic drug monitoring, particularly in the fields of oncology, psychiatry, and infectious diseases. Over the years, she has contributed significantly to the implementation of personalized medicine in Thailand, with her research guiding drug dosing and treatment selection based on genetic profiles.

Dr. Puangpetch has been the principal investigator of multiple national and international grants, including projects funded by the Health Systems Research Institute and Franco-Thai Cooperation Programme. Her work has led to more than 45 international peer-reviewed publications and frequent presentations at global scientific conferences such as the International Congress of Therapeutic Drug Monitoring & Clinical Toxicology and SEAPharm.

Among her recent accomplishments is the development of model-informed precision dosing strategies for pediatric patients undergoing hematopoietic stem cell transplantation, and her investigations into genetic determinants of thiopurine and antipsychotic drug responses in Thai populations.

Assoc. Prof. Apichaya Puangpetch continues to advance translational research that bridges molecular genetics and clinical pharmacology, playing a key role in driving personalized medicine in Southeast Asia.

Model-informed precisiondosing of intravenous busulfan in Thai pediatrics patients

Apichaya Puangpetch[1], FabienneThomas[2], Usanarat Anurathapan[3], SamartPakakasama[3], Suradej Hongeng[3], Étienne Chatelut[2], Chonlaphat Sukasem[1], Félicien Le Louedec[2]
[1]Division of Pharmacogenomics and Personalized Medicine, Department of Pathology, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Bangkok 10400 (Thailand).
[2]Laboratoire de Pharmacologie, Institut Claudius-Regaud, Institut Universitaire du Cancer de Toulouse Oncopole, Centre de Recherche en Cancérologie de Toulouse, INSERM U1037, Université Paul Sabatier, Toulouse (France)
[3]Division of Hematology-Oncology, Department of Pediatrics, Facultyof Medicine Ramathibodi Hospital, Mahidol University, Bangkok 10400 (Thailand)

Introduction

Intravenousbusulfan is a cornerstone in conditioning regimensfor pediatric hematopoietic stem cell transplantation. However, considerable interindividual variability in pharmacokinetics (PK) has been found. To achieve optimal busulfan exposure, (1) a covariate-based formula to predict busulfan clearance (CL) for a prioridose individualization and (2) an optimal model-based TDM strategy for a posteriori dose adjustments were determined.

Materials and Methods

The study was conducted retrospectively. One hundred fourteenThai pediatric patientshave been recruited. Busulfan concentration data collected during TDM of patients treated in Ramathibodi Hospital (Bangkok, Thailand) were modeledwith a population approach (NONMEM 7.4, Icon PLC). The influence of the following variables was screened with a stepwise covariate modeling procedure: actual age, age transformed with a maturation function, sex, malignant disease (MALIGN), fludarabine co-administration, and genetic polymorphism of Glutathione S- transferase Alpha-1 (GSTA1, rs3957357& rs3957356). A limited samplingstrategy was explored. Finally, the days when TDM should be performed were assessed through simulations with the R packages mrgsolve and mapbayr.

Results

A mono-compartmental modelwith proportional residualvariability is best described with IIVand IOV on CL (26.0%and 14.1%, respectively). The covariate screeningrevealed that CL at day 1 was best predicted a priori with the following formula: CL = (BW/25)^0.786 * 0.896^MALIGN * 0.894^GSTA1. Three concentrations (0.25, 2, and 5 hours after the end of the infusion) were sufficient for a satisfactory Bayesian estimation of CL (relative root-mean-square error: 3.4%).

Discussions and Conclusions

Population pharmacokinetic analysis of intravenous busulfan in Thai pediatric patients suggests that body weight, the decrease of CL on days 2-3-4, diagnosis, andGSTA1 are the common predictors of CL. Moreover,this comprehensive approachquantified the benefitof TDM to control busulfan exposure in Thai pediatric patients and suggests decreasing the number of samples to 3 per day of TDM.

Phan Thi Xinh

ASSOC. PROF. PHAN THI XINH, M.D., PH.D

Head of the Department of Molecular Cytogenetics - Blood Transfusion Hematology Hospital, Ho Chi Minh City, Vietnam

Deputy Head of the Department of Hematology - School of Medicine - University of Medicine and Pharmacy, Ho Chi Minh City, Vietnam

Assoc. Prof. Phan Thi Xinh graduated as a general medical doctor from the University of Medicine and Pharmacy at Ho Chi Minh City in 1998. Dr. Xinh graduated with a Master's and PhD from the University of Tokyo, majoring in International Health. She then completed a 2-year postdoctoral fellowship (JSPS Postdoctoral Fellow) at the Department of Pathology, Research Institute of the International Medical Center of Japan. She is currently the Deputy Head of the Department of Hematology, School of Medicine, University of Medicine and Pharmacy at Ho Chi Minh City and the Head of the Department of Molecular Cytogenetics, Blood Transfusion Hematology Hospital, Ho Chi Minh City. She was promoted to Associate Professor in 2016. Assoc. Prof. Xinh is the main researcher as well as a member of the research team of many scientific research projects and topics in the fields of Hematology and Molecular Genetics published in prestigious domestic and international journals such as: Genes Chromosomes Cancer, Human Cell, Cancer Genetics and Cytogenetics, Journal of Biomedicine and Biotechnology, Leukemia, Medicine (Baltimore), Biochemical and Biophysical Research Communications, Vietnam Medical Journal and Ho Chi Minh City Medical Journal.

Assessment of Minimal Residual Disease Using Next-Generation Sequencing in Acute Myeloid Leukemia and Myelodysplastic Syndromes

Acute Myeloid Leukemia (AML) and Myelodysplastic Syndromes (MDS) are two myeloid malignancies characterized by complex disease progression and a high risk of relapse, even after intensive therapies and allogeneic hematopoietic stem cell transplantation (allo-HSCT). The assessment of Minimal Residual Disease (MRD) has become an essential tool for predicting relapse risk and guiding subsequent therapeutic decisions. Among current techniques, Next-Generation Sequencing (NGS) enables the detection of persistent gene mutations initially identified at diagnosis with high sensitivity, particularly post-transplantation, thereby enhancing the precision of MRD evaluation.

In AML patients, multiple studies have demonstrated that the persistence of genetic mutations identified and monitored via NGS before and after allo-HSCT is strongly associated with an increased risk of relapse and reduced overall survival (OS). Notably, MRD positivity at a month post-transplantation has emerged as a significant adverse prognostic marker, correlating with a higher relapse rate and lower OS, even among patients who were MRD-negative before transplant. In MDS, residual genetic mutations with a variant allele frequency (VAF) $\geq 0.5\%$ at a month post-transplantation have been linked to disease progression and decreased progression-free survival (PFS). Furthermore, serial MRD monitoring using NGS has demonstrated the ability to detect molecular relapse earlier than clinical relapse, thus providing an opportunity for preemptive therapeutic intervention.

Recent studies also suggest that achieving “NGS-based MRD negativity” - the absence of detectable target mutations following treatment - has favorable prognostic implications, particularly in patients with MDS and secondary AML harboring TP53 gene mutations. Consequently, MRD monitoring using NGS is increasingly recognized as an indispensable component of AML and MDS management strategies, and it holds promise for early interventional treatment protocols in the near future.

Fang Zhou

FANG ZHOU, M.D., PROFESSOR

Director of Hematology, The 960th Hospital of PLA Joint Logistics Support Force (Jinan, China)

Professor Fang Zhou is a senior hematologist with more than 30 years of experience in clinical research and practice, specializing in hematopoietic stem cell transplantation. She currently serves as Director of the Department of Hematology at The 960th Hospital of the PLA Joint Logistics Support Force in Jinan, China.

Renowned for her pioneering work in treating severe aplastic anemia, Professor Zhou has developed an innovative therapeutic strategy combining intensive immunosuppressive therapy with umbilical cord blood transfusion, which has demonstrated superior outcomes in hematopoietic recovery compared to traditional approaches. She has authored over 40 academic publications and is frequently recognized for her scientific contributions with multiple national and institutional awards. Her research continues to inform best practices in stem cell therapy and improve treatment protocols for patients with bone marrow failure syndromes.

In addition to her clinical and academic roles, Professor Zhou serves as a Council Member of the Shandong Society of Biomedical Engineering, contributing to interdisciplinary advances in biomedical technologies and patient care.

The predictive value of T-cell chimerism for disease relapse after allogeneic hematopoietic stem cell transplantation

Introduction

Chimerism is closely correlated with disease relapse after allogeneic hematopoietic stem cell transplantation (allo-HSCT). However, chimerism rate is dynamic changes, and the sensitivity of different chimerism requires further research.

Methods

To investigate the predictive value of distinct chimerism for relapse, we measured bone marrow (BM), peripheral blood (PB), and T-cell (isolated from BM) chimerism in 178 patients after allo-HSCT.

Results

Receiver operating characteristic (ROC) curve showed that T-cell chimerism was more suitable to predict relapse after allo-HSCT compared with PB and BM chimerism. The cutoff value of T-cell chimerism for predicting relapse was 99.45%. Leukemia and myelodysplastic syndrome (MDS) relapse patients' T-cell chimerism was a gradual decline from 2 months to 9 months after allo-HSCT. Higher risk of relapse and death within 1 year after allo-HSCT. The T-cell chimerism rates in remission and relapse patients were 99.43% and 94.28% at 3 months after allo-HSCT ($P = 0.009$), 99.31% and 95.27% at 6 months after allo-HSCT ($P = 0.013$), and 99.26% and 91.32% at 9 months after allo-HSCT ($P = 0.024$), respectively. There was a significant difference ($P = 0.036$) for T-cell chimerism between early relapse (relapse within 9 months after allo-HSCT) and late relapse (relapse after 9 months after allo-HSCT) at 2 months after allo-HSCT. Every 1% increase in T-cell chimerism, the hazard ratio for disease relapse was 0.967 (95% CI: 0.948–0.987, $P<0.001$).

Discussion

We recommend constant monitoring T-cell chimerism at 2, 3, 6, and 9 months after allo-HSCT to predict relapse.

Nurse Session 2

Long-term follow-up care

Co-chairs: Ayako Mori, Ma Xuan Tuan
Hall: VIP 3-4
Time: 13:00 -14:30

01

Vaccination following hematopoietic stem cell transplant
Hisayo Doi, Kobe

02

Long-Term Care Model for Allo-HSCT Patients via HSCT Platform
Chiang, Meng-Kuan, Taipei

03

Long-Term Follow-Up Care After Hematopoietic Stem Cell Transplantation
Min-Ji Kwak, Seoul

HISAYO DOI

HISAYO DOI/ NURSE

CHIANG, MENG-KUAN

MENG-KUAN CHIANG, RN, PHD

MIN-JI KWAK

MINJI KWAK, RN

Hisayo Doi

HISAYO DOI/ NURSE

Division of Nursing, Kobe University Hospital

Hisayo Doi is an experienced oncology nurse at Kobe University Hospital, Japan, with over two decades of clinical expertise in hematopoietic stem cell transplantation (HSCT) and cancer chemotherapy nursing. Since joining the hospital's Division of Nursing in 2002, she has been deeply involved in the care of hematology and oncology patients across various inpatient and outpatient settings.

In 2008, Ms. Doi was certified as a Certified Nurse Specialist in Cancer Chemotherapy Nursing, and has since taken on key leadership roles, including Assistant Chief Nurse. Her professional journey includes assignments in the Hematology Ward, Oncology/Hematology Ward, and the Tumor Center/Outpatient Unit, where she contributes to advanced cancer care and patient-centered supportive interventions.

She is a dedicated member of numerous professional organizations, including the Japanese Society for Transplantation and Cellular Therapy, Japanese Society of Cancer Nursing, Asia-Pacific Blood and Marrow Transplantation Group (APBMT), and several specialty societies focused on oncology and supportive cancer care.

Ms. Doi has actively presented her work at many international conferences, particularly APBMT Congresses, where she shared insights on long-term follow-up in HSCT, appearance care, nutrition and rehabilitation, and nursing perspectives during the COVID-19 pandemic. Her contributions reflect a commitment to improving quality of life and clinical outcomes for transplant patients. Through a blend of clinical excellence, educational advocacy, and research engagement, Hisayo Doi continues to play a key role in advancing cancer nursing in Japan and the Asia-Pacific region.

Vaccination following hematopoietic stem cell transplant

Patients who have undergone hematopoietic stem cell transplantation (HSCT) have weakened immune systems and are more susceptible to various infections. Once an infection occurs, treatment is often challenging. Additionally, after transplantation, the immunity acquired through natural infection or prior vaccination declines or disappears. Therefore, vaccination is recommended to help prevent disease onset or reduce symptom severity.

However, in Japan, post-transplant vaccination is not yet widely implemented, and our hospital was also not providing adequate vaccination. The reasons identified include: (1) complexity of the vaccination schedule, (2) lack of knowledge, and (3) the fact that it is not covered by insurance and requires out-of-pocket payment.

To address these issues, we reviewed recommendations from both domestic and international guidelines and discussed with BMT (Blood and Marrow Transplant) physicians, ID (infectious disease) specialists, LTFU (Long-Term Follow-Up) nurses, and the medical administration department to establish a vaccination system for post-HSCT patients at our hospital.

Based on these guidelines, we first clarified the types of vaccines, the recommended schedule, and the associated costs. When a patient becomes eligible for vaccination, the BMT physician—who is the primary doctor of the patient—assesses the patient's condition, including GVHD (Graft-versus-Host Disease) and overall health status, and consults with the ID department. At that point, the BMT physician and LTFU nurse explain the necessity and cost of the vaccinations to the patient and obtain their consent. The ID department, which is responsible for administering the vaccines, then handles the scheduling, provides explanations to the patient, and manages follow-up care.

In this presentation, I will introduce the vaccination system we have established at our hospital and its current implementation status, as well as provide an overview of the current state of secondary cancer prevention.

Chiang, Meng-Kuan

MENG-KUAN CHIANG, RN, PHD

Education Specialist, Koo Foundation Sun Yat-Sen Cancer Center, Taiwan

Ms. Meng-Kuan Chiang is an experienced oncology nurse specializing in hematopoietic stem cell transplantation (HSCT) care, education, and survivorship programs. She began her nursing career at the hospice unit of National Taiwan University Hospital, later joining Koo Foundation Sun Yat-Sen Cancer Center where she served as Head Nurse of the Bone Marrow Transplant Unit for over a decade. Since 2020, she has been Education Specialist in the Advancement Nursing Department, focusing on clinical training, patient education, and quality improvement initiatives.

Ms. Chiang has been actively involved in professional organizations, including serving as Deputy Secretary of the Taiwan Society of Blood and Marrow Transplantation and previously as a board member of the Taiwan Oncology Nursing Society. She has presented widely at national and international conferences, covering topics such as symptom management post-HSCT, discharge planning, exercise interventions for fatigue, long-term follow-up models, and the nursing challenges of HSCT during the COVID-19 pandemic.

Her publications include research on HSCT nursing interventions, cancer pain management, safe handling of antineoplastic drugs, and clinical guidelines for intravenous catheter care. With over 20 years of clinical and educational expertise, Ms. Chiang is committed to advancing evidence-based nursing practice and improving outcomes for cancer patients and transplant survivors.

Long-Term Care Model for Allogenic Hematopoietic Stem Cell Transplantation Patients via HSCT Platform

Chiang, Meng-Kuan[1], Tsai, Hui-Ju[2], Chang, Chiao-Fang[2], Chen, Jui-Yi[2]
1.Koo Foundation Sun Yat-Sen Cancer Center
2.National Taiwan University Hospital

With improved survival after hematopoietic stem cell transplantation (HSCT), long-term survivorship care has become increasingly essential. However, comprehensive post-transplant support remains limited. At National Taiwan University Hospital, a baseline review of allo-HSCT patient outcomes revealed significant challenges: over 70% of patients developed graft-versus-host disease (GvHD) within the first year, with more than 49% of cases occurring within the first three months. Notably, eye and oral GvHD were frequently under-recognized until later stages, delaying interventions and impacting quality of life.

In response, a structured, case manager-led care model was implemented, incorporating scheduled follow-ups at 1 week, 3 months, 6 months, and 1–2 years post-transplant. This model emphasizes GvHD screening, infection prevention, functional assessment, and patient empowerment via mobile contact lines, a GvHD handbook, and an HSCT platform for self-monitoring. Preliminary data demonstrated improved early detection and care coordination, particularly for ocular GvHD.

However, retrospective evaluation of current practice revealed a key limitation—while patient-reported outcomes (PROs) were routinely collected, mechanisms for automated analysis and timely clinical response remained underdeveloped. This gap often led to missed opportunities for early intervention. In light of this, the next phase of development aims to build an innovative survivorship platform integrating PROs with AI-driven analytics. Through real-time symptom tracking and automated triage, nurse case managers will lead individualized, responsive care. Despite challenges such as data standardization and workflow integration, this model represents a scalable, intelligent, nurse-led solution to optimize long-term HSCT outcomes.

Min-Ji Kwak

MINJI KWAK, RN

Education Specialist, Koo Foundation Sun Yat-Sen Cancer Center, Taiwan

Minji Kwak, RN, is a clinical nurse specializing in hematopoietic stem cell transplantation (HSCT) and hematologic oncology at Seoul National University Hospital, South Korea. She has extensive experience in delivering comprehensive nursing care to patients undergoing complex cancer treatments, including stem cell transplantation and infectious disease management.

Ms. Kwak began her professional journey in 2017 as a nurse in the HSCT unit, where she was responsible for pre- and post-transplant care, infection prevention, and patient education. From 2022 to 2023, she worked in the Nationally Designated Infectious Disease Unit, providing high-level nursing care during public health emergencies, including outbreak response and strict isolation protocol management.

Since October 2023, she has been part of the Hematology-Oncology Unit, where she provides specialized nursing support to patients with hematologic malignancies, manages chemotherapy-related symptoms, and coordinates multidisciplinary treatment plans.

She holds a License in Oncology Nursing (2023) and recently completed the Advanced Oncology Nursing Program at the Graduate School of Cancer Science and Policy, Seoul National University in 2024.

Minji Kwak is committed to advancing evidence-based practice in transplant and oncology nursing and contributing to high-quality, patient-centered care in hematologic cancer treatment.

Long-Term Follow-Up Care After Hematopoietic Stem Cell Transplantation (HSCT)

Long-term follow-up after hematopoietic stem cell transplantation is essential for optimal patient care. Regular monitoring enables early detection and management of chronic GVHD and infections, which are major causes of morbidity and mortality. Multidisciplinary collaboration and individualized surveillance protocols help prevent complications, support timely interventions, and improve long-term outcomes and quality of life for transplant recipients.

MILTENYI SPONSORED SYMPOSIUM

Hall: BALLROOM 2
Time: 14:30 -15:30

Engineering the Future: Graft Optimization and On-Site Manufacturing in Cell and Gene Therapeutics

Coordinator: Ranga Prakash

Welcome and introduction – update on current cell and gene therapy developments in Vietnam
Nguyen Thanh Liem, Ha Noi

Ex vivo T-cell depletion and point-of-care manufacturing of donor lymphocyte infusion and haematopoietic stem cell therapy
Pamela Lee, Hong Kong

Development of CAR-T for ALL: Investigator-Initiated Trial in Korea
Hyoung Jin Kang, Seoul

NGUYEN THANH LIEM

PROF. DR. NGUYEN THANH LIEM

PAMELA LEE

PAMELA PUI WAH LEE, MBBS (HKU), MD (HKU), MRCPCH, FHKAM(PAED), FHKCPAED

HYOUNG JIN KANG

HYOUNG JIN KANG, M.D., PH.D.

NGUYEN THANH LIEM

PROF. DR. NGUYEN THANH LIEM

Director of the Vinmec Institute of Stem Cell and Gene Technology and concurrently Head of the Department of Regenerative Medicine and Cell Therapy at Vinmec Times City International Hospital

Prof. Nguyen Thanh Liem is a pioneer and innovator in pediatric endoscopic surgery and stem cell transplantation. He graduated from Hanoi Medical University in 1976 and completed medical residency program in Surgery at Viet Duc Hospital in 1979. He defended his PhD. thesis in 1991 and was appointed as a Medical Professor in Surgery in 2009.

He is internationally recognized inventor by his seven advanced operative techniques in the Pediatric Surgery. Regarding the stem cell studies, Prof. Liem is a pioneer of using stem cell therapy for unmet diseases in children such as cerebral palsy due to oxygen deprivation, due to neonatal icterus, due to intracranial hemorrhage, neurological sequelae after nearly death drowning, Autism, bronchopulmonary dysplasia, and liver cirrhosis due to biliary atresia.Throughout his career, he has been in charge of a number of important positions such as Director of Vietnam National Children Hospital from 2002 to 2012; Director of Vinmec International Hospital from 2013-2016; Vice president of Asian Association of Pediatric Surgery; President of Vietnam Association of Pediatric Surgery. Currently, Prof. Liem is the director of Vinmec Research Institute of Stem Cell and Gene Technology.

He has published 139 studies on the international journals and over 200 papers on domestic journals. He is the Editor and author of six chapters of the Book titled “Cell Therapy: Stem Cells and Regenerative Medicine” published by Springer Nature in May, 2025. He is also the co-author of surgery pediatrics textbooks published in UK and US such as Operative Pediatric Surgery, Ashcraft’s Pediatric Surgery, and Pediatric Laparoscopic and Thoracospoc Surgery.

Prof. Nguyen Thanh Liem has been invited to give lectures and performed demonstrative surgeries in many countries including the US, France, Netherlands, Italia, Australia, Japan, India, South Korea... By his dedicated and delightful contributions to the medical practices and research, he has been honored many prestige awards conferred by the Vietnam government like Ho Chi Minh Award, National Labor Hero Medal, Award of Vietnam Talent. In 2018, he has been awarded the 2018 Nikkei Asia Prize in the Science and Technology category thank to his contribution to develop and popularize pediatric endoscopic surgery in Asia and the world. He is categorized in top 100 scientists of Asia by Sigapore journal in 2019.

CAR-T Cell therapy for lymphoma and acute leukemia at low cost

Nguyen Thanh Liem (*)[1], Van T. Hoang[1], Nguyen Dinh Duy[2], Dao Thi Mai Lan[1], Bach Quoc Khanh[3], Phung Nam Lam[2], Nguyen Ngoc Quang[2], et al.

[1]Vinmec Research Institute of stem cell and gene technology – College of Health Sciences, VinUni

[2]Vinmec Times City International General Hospital

[3]National Institute of Hematology and Blood Transfusion

Purpose: This study aims to analyze the safety and primary efficacy of point-of-care CD19 CAR T-cell therapy produced locally at low cost for the treatment of CD19+ B-cell acute lymphoblastic leukemia (ALL) and non-Hodgkin lymphoma (NHL) in Vietnam.

Methods: A A phase 1 clinical trial was conducted from August 2023 to March 2025. CD19 CAR T-cells for 8 ALL patients and 8 NHL patients were manufactured using automated ClinicMACS Prodigy system. CAR-T cells were infused with doses ranging from 0.54 to 2.17 × 10^6 cells/kg.

Results: The number and percentage of CAR T-cells at harvest were comparable between the 12-day and 8-day culture groups; however, viability was significantly better in the latter group (p=0.01). Upon treatment, the most common side effects included cytokine release syndrome (13 patients) and neurological toxicity (2 patients). No mortality related to CAR-T therapy was observed. All ALL patients achieved complete remission after CAR-T cell infusion on day 30. At 6 months, 5 patients (62.5%) remained in complete remission. 7 out of 8 NHL patients achieved complete remission on day 90, and 6 remained in complete remission at 6 months. One patient is awaiting assessment.

The total cost of CAR T-cell therapy was approximately $140,000 per patient, with around $80,000 allocated to the CAR-T product and $60,000 for treatment costs.

Conclusion: CD19 CAR-T products can be produced at low cost. CAR-T treatment is relatively safe and offers a promising therapeutic option for refractory/relapsed CD19+ NHL and ALL in a developing country like Vietnam.

Low cost CD19 CAR-T can be produced for refractory/relapsed CD19+ NHL and ALL

Pamela Lee

PAMELA PUI WAH LEE, MBBS (HKU), MD (HKU), MRCPCH, FHKAM(PAED), FHKCPAED

Clinical Associate Professor
Department of Paediatrics and Adolescent Medicine
School of Clinical Medicine, LKS Faculty of Medicine, The University of Hong Kong
Haematopoietic Stem Cell Transplant and Cellular Therapy Centre, Hong Kong Children's Hospital, HKSAR, China

Dr. Pamela Pui Wah Lee is a Clinical Associate Professor at the Department of Paediatrics and Adolescent Medicine, LKS Faculty of Medicine, The University of Hong Kong, with specialist expertise in haematopoietic stem cell transplantation, immunology, and rheumatology. She obtained her MBBS and MD from The University of Hong Kong, followed by advanced training in Paediatrics at Queen Mary Hospital and subspecialty fellowship training in Immunology and Bone Marrow Transplantation at Great Ormond Street Hospital NHS Foundation Trust, UK.

A pioneer in paediatric immunology in Hong Kong, Dr. Lee was among the first fellows accredited in the subspecialty of Paediatric Immunology, Allergy and Infectious Diseases. Her leadership roles span academia, clinical service, and professional organisations, including Vice-Chair of the Viva-Asia Blood and Marrow Transplantation (VABMT) Group, Vice President of the Hong Kong Society for Paediatric Immunology, Allergy and Infectious Diseases, and membership in the Medical Advisory Panel of the International Patient Organization for Primary Immunodeficiencies (IPOPI).

Her research focuses on the genetic basis and molecular mechanisms of inborn errors of immunity, host defense pathways such as inflammasomes and autophagy, and the development of novel CAR-T cell therapeutics for autoimmune disorders. She has authored over 120 peer-reviewed publications, including leading articles in Nature Communications, Journal of Allergy and Clinical Immunology, and Pediatrics, with over 3,300 citations and an h-index of 32.

Dr. Lee is also recognized for her contributions to medical education, serving as Assistant Dean (Professional Development) and MBBS Programme Director (Clinical) at HKU, and has received multiple teaching and research awards, including the Faculty Teaching Medal, the Rosie Young 90 Medal for Outstanding Young Woman Scholar, and the Gold Award at QS Reimagine Education.

Hyoung Jin Kang

HYOUNG JIN KANG, M.D., PH.D.

Department of Pediatrics, Cancer Research Institute, Seoul National University College of Medicine, Seoul National University Children's Hospital

Dr. Hyoung Jin Kang is a leading pediatric hematologist-oncologist with over 25 years of clinical, academic, and research experience in childhood leukemia, stem cell transplantation, and cellular and gene therapy. He earned his MD, Master's in Pediatrics, and PhD in Molecular and Clinical Oncology from Seoul National University College of Medicine, followed by advanced training at Baylor College of Medicine, USA.

Currently serving as Professor of Pediatrics at Seoul National University College of Medicine and Chief of the Children and Adolescent Cancer Center, Dr. Kang has held numerous leadership roles, including Chair of multiple national working parties on acute lymphoblastic leukemia and immune cell/gene therapy, Vice President of the Korean Society of Gene and Cell Therapy, and member of international advisory committees such as the International Society of Pediatric Oncology.

His contributions include over 150 peer-reviewed SCI(E) publications, pioneering work in reduced-toxicity conditioning regimens for stem cell transplantation, and advancements in pediatric cellular immunotherapy. He has been recognized with multiple national and international awards, including the Minister of Health and Welfare Award (2016, 2022, 2024) for outstanding achievements in health and medical technology development.

NURSE COMMITTEE MEETING

Hall: VIP 3 - 4
Time: 14:30 -15:30

Session 3

Long-term follow-up

Co-chairs: TBC, Keith Fay
Hall: BALLROOM 1
Time: 15:45 -17:15

01

Telehealth delivered non-pharmaceutical treatment program to improve the long-term health of patients post Haematopoietic Stem Cell Transplant
David Ma, Sydney

02

Survivorship after Allogeneic Stem Cell Transplantation: Quality of Life and Factors Associated with Return to Work
Dominique Bron, Lyon

03

International recommendations for screening and preventative practices for long-term survivors of transplantation and cellular therapy: a 2023 update (online)
Helene Schoemans, KU Leuven

DAVID MA

PROFESSOR DAVID D. MA, MBBS (HONS), MD, FRACP, FRCPA

DOMINIQUE BRON

BRON DOMINIQUE, MD, PHD

HELENE SCHOEMANS

HÉLÈNE SCHOEMANS, MD PHD

David Ma

PROFESSOR DAVID D. MA, MBBS (HONS), MD, FRACP, FRCPA

Director of Research, Department of Haematology & Bone Marrow Stem Cell Transplantation
St Vincent's Hospital Sydney, Australia
Conjoint Professor, St Vincent's Clinical School, UNSW Sydney

Professor David D. Ma is a distinguished clinician-scientist and one of Australia's leading experts in haematology, stem cell transplantation, and cellular therapy. He currently serves as Director of Research at the Department of Haematology and Bone Marrow Stem Cell Transplantation, St Vincent's Hospital Sydney, where he also leads the Haematology Research Program at the Centre for Applied Medical Research. As a Conjoint Professor at UNSW Sydney, he has been a dedicated academic and clinical mentor since 1998.

Professor Ma has pioneered translational research across several domains including immunotherapy, targeted therapies, and haematopoietic stem cell transplantation. He led the world's first external quality assurance program for viable CD34+ stem cell enumeration and has spearheaded numerous innovations such as gene therapy trials for HIV and patented molecular therapies for acute leukemia. His lab maintains ongoing collaborations with national and international industry partners to advance drug discovery and biomarker research. Actively involved in global health and education, Professor Ma co-chaired the WHO-affiliated Global Emergencies and Nuclear Accident Committee of the Worldwide Network for Blood and Marrow Transplantation and served on the Executive Board of the Asia-Pacific Blood and Marrow Transplantation Group (APBMT). Since 2013, he has mentored healthcare teams in emerging economies—including Myanmar, Sri Lanka, and the Philippines—to establish national HSCT programs, reflecting his strong commitment to equity and capacity-building in global haematology.

In addition to his prolific scientific output—comprising over 200 peer-reviewed publications and numerous international presentations—he has contributed to five book chapters and received over 10,000 citations. He is a passionate advocate for integrated survivorship care and has implemented telehealth interventions for transplant patients, further demonstrating his patient-centric approach. Professor Ma is frequently invited to speak at major international meetings and remains a central figure in shaping clinical standards, research quality, and education in blood and marrow transplantation across the Asia-Pacific and beyond.

Telehealth delivered non-pharmaceutical treatment program to improve the long-term health of patients post Haematopoietic Stem Cell Transplant

Advances in haematopoietic Stem Cell Transplant (HCT) has increased the number of survivors needing long-term support. The lifespan of transplant recipients who survive over 2-year post-HCT approaches the age-matched population. Many are burdened with transplant-related complications and common chronic diseases including cardiovascular disease and metabolic disorders leading to increased healthcare costs and reduced survival, quality of life and economic independence. Meeting the health needs of increasing HCT survivors remainschallenging. In-person programs of physical exercise and mindfulness-based stress management (MBSM) have been shown to benefit cancer patients in early treatment phase. However, the durability of benefits and delivery via the Internet especially to transplant survivors remain unaddressed. Our recent trials are the first reports that demonstrated the feasibility, safety and sustained benefitsof a virtually supervised exercise and MBSB program. The use of digital health tools to support delivery and adherence further enhances scalability and real-world applicability. This program would reduce healthcare burden and support clinicians in delivering comprehensive, person-centred care to HCT survivors.

References: 1. Ma DD et al. Potential benefits of a virtual, home-based combined exercise and mindfulness training program for HSC transplant survivors: a single-arm pilot study. BMC Sports Sci Med Rehabil. 2022 Sep 5;14(1):167; 2. Ma DD, et al. Randomized Controlled Trial of a Virtually Delivered Exercise and StressManagement Program to Improve Physical Performance of Hematopoietic Cell Transplant Survivors. Clin Oncol. 2025 Mar 10;43(8):949-959.

Dominique Bron

BRON DOMINIQUE, MD, PHD

Professor Emeritus of Medicine/Hematology, Université Libre de Bruxelles (ULB)
Former Head, Department of Hematology and Transplantation, Institut Jules Bordet
Member, Belgian Royal Academy of Medicine

Professor Dominique Bron is a distinguished hematologist and international expert in the fields of lymphoid malignancies, bone marrow transplantation, and the bone marrow microenvironment. With over four decades of academic and clinical leadership, she has made pioneering contributions to the understanding of aging and malignant hemopathies, and has been an influential voice in bioethics in medicine.

Professor Bron received her medical and hematology training at Université Libre de Bruxelles (ULB), with advanced specialization in bone marrow transplantation at the Fred Hutchinson Cancer Research Center in Seattle, and a PhD in Immunotherapy from Stanford University, California.

She served as Head of the Department of Hematology and Transplantation at the Institut Jules Bordet (HUB/ULB) in Brussels, where she helped develop one of Belgium's most advanced hematology and transplant programs. She is also a founding member of the EHA Scientific Working Group on Aging & Hematology, and actively contributes to harmonizing hematology training across Europe through the EHA Education Curriculum.

Her academic output includes over 300 publications, more than 600 presentations, and a citation index of 61, reflecting her international impact. She holds memberships in prestigious societies including EHA, EBMT, ASH, SIOG, LYSA, and BHS.

In recognition of her contributions, Prof. Bron has received numerous honors, including:

- Honorary Professor, University of Prague (1998)
- Professor Honoris Causa, University of Medicine and Pharmacy, Ho Chi Minh City, Vietnam (2013)
- Vietnam Order of Merit for People's Health (2018)

Today, she continues her scientific involvement through laboratory research (LTCC, HUB), charitable foundations, and advisory roles in academic and policy settings, while remaining a mentor to future generations of hematologists.

Survivorship after allogeneic stem cell transplantation: Quality of life and factors associated with return to wok

Background: Experience on long-term survivorship and late effects after allogeneic hematopoietic stem cell transplantation (Allo-HSCT) have greatly improved during the last decade... There is a wide burden of morbidity ranging from clinical, psychological and cognitive impairment s, with considerable impact on health and quality of life. This implies a great need for a standardized approach in the management of long-term survivors.
With longer follow-up time since Allo-HSCT, long-term survivors no longer receive direct care from their transplant center but are regularly controlled by their onco-hematologist or primary care provider.

Unmet Needs: The success of the long-term survivorship care depends not only on transplantation success but also onsurvival with quality of life (QoL) and capacity to return to work (RTW) when applicable. Chronic GVHD and management of its late adverse events are quitewell defined.. However post-transplant mental health and cognitive functions have significant impacts on patients' ability to RTW and influence daily activities. Understanding these factors is essential to optimizing long-term outcomes after Allo-HSCT.

Observations: we analyzed retrospectively 127 transplanted patients, in remission one Year post Allo-SCT, who accepted to fill questionnaires . Of these, 78% had worked before transplantation - 43% female and 57% male. The median age was 47 (18-65) years. Women were more likely to experience anxiety ($p = 0.004$) with 45.7% of those who did not RTW, reporting this issue ($p = 0.03$). European patients had higher depression rates compared to non-Europeans ($p = 0.047$). Married/partnered patients showed higher cognitives scores (Cog)-QoL levels than those divorced/separated ($p = 0.03$), with a similar trend in the employed subgroup ($p = 0.059$). Patients who resumed cultural, travel or leisure activities after HSCT had significantly lower anxiety ($p = 0.01$, $p = 0.04$, $p = 0.003$) and depression ($p = 0.02$, $p = 0.02$, $p = 0.002$) scores.
This population had also higher cognitive (Cog)-QoL levels ($p = 0.01$, $p = 0.02$, $p = 0.04$), and RTW was correlated with improved Cog-Qol scores ($p = 0.0054$, $p = 0.0016$).

Recommendations: Beside management of cGVHD and cancer screening, these findings emphasize the importance of addressing psychological and cognitive health evaluation in post-transplant care to facilitate RTW and restoration of quality of life in daily activities.

Helene Schoemans

HÉLÈNE SCHOEMANS, MD PHD

Associate professor at the KU Leuven and University Hospitals of Leuven

Dr. Hélène Schoemans is a leading hematologist with extensive expertise in allogeneic stem cell transplantation, survivorship care, and graft-versus-host disease (GVHD). Since 2009, she has served as a full-time staff physician in the Hematology Department at UZ Leuven and has held an academic appointment as Assistant Professor at KU Leuven since 2020.

After earning her medical degree summa cum laude from Université Catholique de Louvain (UCL), Dr. Schoemans pursued advanced specialization in internal medicine and hematology, and later completed her PhD on post-transplant care using e-health and patient-reported outcomes. She has played a pioneering role in integrating digital health into transplantation follow-up and is the founder of the EBMT Patient Engagement Task Force. Internationally recognized for her contributions to GVHD care and survivorship, Dr. Schoemans has held leadership roles in several working parties within the EBMT and CIBMTR, including as Chair of the Late Effects Sub-Committee and Co-Chair of the CIBMTR Late Effects Committee. She is a frequent invited speaker at major international hematology conferences and a passionate advocate for patient-centered care models.

Her scientific work includes over 80 peer-reviewed publications, and she has received numerous honors, including the Belgian Hematological Society's Patient Centricity Award. Dr. Schoemans is also active in mentorship, education, and patient advocacy through her involvement with the Belgian organization Lotuz.

Outside of medicine, she enjoys theater, art, literature, hiking, scuba diving, and spending time with her family.

International recommendations for screening and preventative practices for long-term survivors of transplantation and cellular therapy: a 2023 update

With over half a million hematopoietic cell transplantation (HCT) survivors expected in the USA in 2030 (Majhail BBMT, 2013), and therefore even more worldwide, eleven major HCT scientific societies (CTTC, ASTCT, CIBMTR, COG, PTCTC, LABMT, SBTMO, EBMT, EMBMT, APBMT and ANZTCT) decided to join forces to update de original long-term survivorship guidelines initially published in 2006. The literature was extensively reviewed and the quality of available evidence was graded and categorized based on the National Comprehensive Cancer Network (NCCN) approach by the group of experts participating in the initiative. This presentation will summarize the general recommendations regarding all major organ toxicities, subsequent malignant neoplasms, psycho-social and quality of life issues that can be expected after HCT. Vaccination guidelines will be reviewed, as well as current patient peer support options. Special attention will also be given to sub-group populations such as non-malignant diseases, auto-immune disease, multiple myeloma and amyloidosis, geriatric populations and adolescents & young adults.

Session 4

CAR-T Cell Therapy Clinical Aspect

Chairman: Shaomei Feng, Phu Chi Dung
Hall: BALLROOM 2
Time: 15:45 -17:15

01

Real-world experience of sourcing & establishing CART service in a resource limited centre in our region, The Hong Kong story
Joycelyn SIM, Hong Kong

02

International referral and cooperation for difficult HSCT and CAR-T cell therapy: Example in Taiwan
Li Chi Cheng, Hualien

03

Aiming for More Appropriate Management of Complications in Chimeric Antigen Receptor (CAR-) T Cell Therapy
Naokazu Nakamura, Kyoto

JOYCELYN SIM PUI-YIN

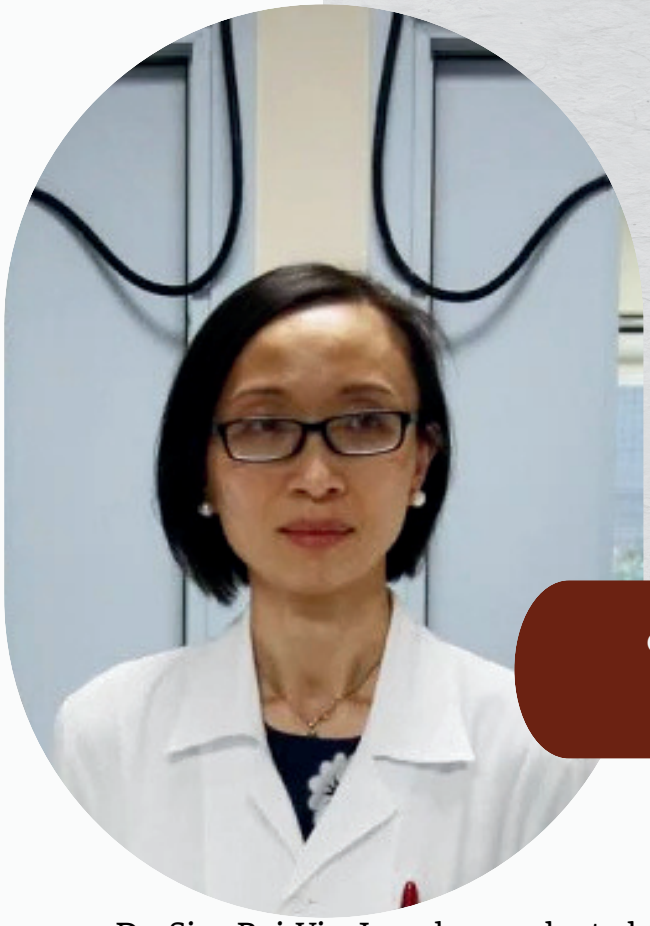
JOYCELYN SIM PUI-YIN, MD, PHD

LI, CHI-CHENG

CHI-CHENG LI, M.D.

NAOKAZU NAKAMURA

NAOKAZU NAKAMURA, MD



Joycelyn SIM Pui-yin

JOYCELYN SIM PUI-YIN, MD, PHD

Consultant (Queen Mary Hospital) and Honorary Clinical Associate Professor (Department of Medicine, Li Ka Shing Faculty of Medicine, University of Hong Kong)

Dr. Sim Pui Yin Joycelyn graduated from the Faculty of Medicine at the University of Hong Kong and specialized in Haematology and Haematologic Oncology. She is currently a Consultant Haematologist at Queen Mary Hospital in Hong Kong.

Her research focuses on various hematologic diseases, with a particular interest in hematopoietic stem cell transplantation.

Dr. Sim was an ex- council member of the Hong Kong Society of Haematology (HKSH) and is currently a general council member of the Asia-Pacific Blood and Marrow Transplantation (APBMT) group. She has published numerous papers in peer-reviewed journals and has presented her work at various conferences in the field of transplantation.

Real world experience of sourcing & establishing CART service in a resource limited centre in our region, The Hong Kong story

CAR T-cell therapy represents a paradigm shift in cancer treatment. It has revolutionized the treatment of B-cell malignancies and multiple myeloma. Yet, we face significant accessibility challenges. According to an APBMT survey performed in 2022, CAR T-cell therapy was available in only 9 of 19 countries/regions among the 22 countries/regions participating in APBMT as of Apr 2022.

In Hong Kong, the first commercial CAR-T product was registered for clinical use in 2021. Queen Mary Hospital was the first hospital in the territory to offer this treatment to eligible patients through a pilot prioritization program. Here, we share our experience as we faced the barriers of high costs, complex workflow logistics, patient referrals and care coordination, etc in an already busy haematopoietic stem cell transplantation center.

Li, Chi-Cheng

CHI-CHENG LI, M.D.

Vice Superintendent & Supervisor, Buddhist Tzu Chi Stem Cells Center, Hualien Tzu Chi Hospital, Taiwan

Dr. Chi-Cheng Li is a respected hematologist and researcher specializing in hematopoietic stem cell transplantation, CAR-T cell therapy, and precision diagnostics in hematologic malignancies. He currently serves as the Director of the Center of Stem Cell & Precision Medicine at Hualien Tzu Chi Hospital and as Assistant Professor at Tzu Chi University. Since 2022, he has also been serving as President of the Taiwan Society of Blood and Marrow Transplantation (TSBMT), contributing to the advancement of transplant practices nationally and regionally.

Dr. Li completed his medical degree at China Medical University in Taichung, Taiwan, and earned a Master's degree in Biomedical Engineering from National Cheng Kung University. His academic background integrates clinical medicine with advanced technological approaches, especially in flow cytometry for minimal residual disease (MRD) detection.

His clinical and research interests focus on:

- Hematopoietic stem cell transplantation and CAR-T cell therapy
- Flow cytometry for MRD monitoring in hematologic cancers

Dr. Li is actively involved in academic education, interdisciplinary collaboration, and the promotion of innovative cell-based therapies in Taiwan. He has contributed to the development of national guidelines and plays a vital role in bridging research and clinical application in hematology and cellular therapy.

International referral and cooperation for difficult HSCT and CAR-T cell therapy: Example in Taiwan

The Asia-Pacific Blood and Marrow Transplantation Group (APBMT) currently comprises 23 countries or regions addressing a wide range of issues related to Hematopoietic Stem Cell Transplantation (HSCT) in the Asia-Pacific region. While some countries have adopted advanced technologies to perform various types of HSCT, certain countries or regions still face challenges in implementing complex procedures such as HSCT from mismatched related or unrelated donors, treating very young or elderly patients, managing advanced hematologic malignancies, or applying novel therapies such as chimeric antigen receptor (CAR) T-cell therapy.

Taiwan, one of the founding members of the APBMT since 1990, has developed a modest yet steadily growing HSCT program. In recent years, referrals of international patients from neighboring countries to Taiwan have increased substantially. For instance, Hualien Tzu Chi Hospital, located in eastern Taiwan, has provided HSCT and CAR T-cell therapy to patients from Indonesia, Malaysia, Myanmar, the Philippines, and Vietnam.

Numerous challenges have been encountered, including language barriers, cultural differences, financial constraints, psychological support, nursing care, treatment outcomes, and the need for seamless coordination with the referring institutions post-treatment. This report aims to share our recent experience and insights in delivering HSCT and CAR T-cell therapy to international patients in Taiwan.

Keywords: HSCT, CAR-T, international referral

Naokazu Nakamura

NAOKAZU NAKAMURA, MD

PhD Candidate, Department of Hematology, Graduate School of Medicine, Kyoto University, Japan
Research Fellow, Division of Molecular and Medical Genetics, Center for Gene and Cell Therapy, The Institute of Medical Science, University of Tokyo

Dr. Naokazu Nakamura is a rising clinician-scientist in hematology with a rapidly expanding research portfolio focused on CAR-T cell therapy, cytokine release syndrome (CRS), and biomarkers for hematologic malignancies and transplantation outcomes. After completing his junior and senior residency at Kyoto University Hospital, he began his PhD in 2024 at Kyoto University while conducting translational research in cellular therapy at the University of Tokyo. His scholarly productivity is exceptional for an early-career investigator, with over 15 peer-reviewed publications as first author in top-tier journals including British Journal of Haematology, Transplantation and Cellular Therapy, eJHaem, and Cytotherapy. His work has led to the development of novel clinical prediction models such as the KyoTox A-Score and proposed several innovative biomarkers for CRS and immune-mediated complications.

Dr. Nakamura is a member of multiple prestigious societies including ASH, ASTCT, EBMT, JSH, and the Japanese Society for Transplantation and Cellular Therapy. He has received numerous national and international awards, including:

- Robert Korngold Award (2024) – ASTCT
- Young Researchers Award (2024) – JSTCT
- Best Presentation Awards at several national congresses
- Travel Awards from ISBMT and Japanese Society for Gene and Cell Therapy

His current research explores T-cell dynamics, inflammatory markers, and hematologic toxicity in CAR-T recipients, and aims to enhance early detection and personalized management of therapy-related complications.

Dr. Nakamura represents a new generation of physician-scientists dedicated to bridging clinical insight and experimental research to improve patient outcomes in hematologic cancers.

Department of Hematology, Graduate School of Medicine, Kyoto University

Over the past decade, chimeric antigen receptor (CAR-) T cell therapy has emerged as a powerful and effective treatment for patients with hematopoietic malignancies. Until now, Kyoto University has performed CAR-T cell therapy in over 250 cases, making it one of the leading facilities in Japan. Based on the large number of clinical experiences, we have conducted extended researches on CAR-T cell therapy in various aspects, including (1) patient selection, (2) lymphocyte apheresis, (3) bridging therapy, (4) management of either acute or long-term complications. In this session, I would like to give a presentation about the management of complications in CAR-T cell therapy by introducing three studies we have reported so far. First, we identified the level of phosphate as an early biomarker that can predict the development of cytokine release syndrome (CRS). Second, we have found cranio-cervical edema occur shortly after the onset of CRS and defined the phenomenon as an acute minor complication of CAR-T cell therapy. Lastly, we have established a new predictive scoring model for prolonged hematotoxicity, the “KyoTox a-score.” This scoring model is based on severity of inflammation shortly after CAR-T infusion, and can predict the onset and the duration of prolonged hematotoxicity more accurately than the conventional predictive model. CAR-T cell therapy continues to evolve in both clinical and basic research fields, and will be applied to more and more patients with a wider variety of diseases in the future. We believe that our research contributes to maximizing the great potential of CAR-T by ensuring its safety.

Session 5

HSCT Complication – Infection

Chairman: Chin Sum Cheong, Hoang Duy Nam
Hall: BALLROOM 3
Time: 15:45 - 17:15

01

Strategies for Preventing and Managing HBV Reactivation after Allogeneic HSCT
Masahiro Onozawa, Hokkaido

02

Granulocytes infusion for severe infection transplant patients at NIHBT
Nguyen Ba Khanh, Ha Noi

03

BK polyomavirus infection after hematopoietic cell transplantation
Takehiko Mori, Tokyo

MASAHIRO ONOZAWA

MASAHIRO ONOZAWA, MD, PHD

NGUYEN BA KHANH

DR. NGUYEN BA KHANH MD, PHD

TAKEHIKO MORI

TAKEHIKO MORI, M.D., PH.D.

Masahiro Onozawa

MASAHIRO ONOZAWA, MD, PHD

Associate Professor, Department of Hematology
Graduate School of Medicine, Juntendo University,
Tokyo, Japan

Dr. Masahiro Onozawa is a leading clinician-scientist in the field of hematology, with particular expertise in allogeneic stem cell transplantation, myeloid malignancies, and transplant immunology. He currently serves as Associate Professor in the Department of Hematology at Juntendo University Graduate School of Medicine in Tokyo, where he plays a key role in both clinical management and academic research.

Dr. Onozawa received his MD and PhD from Juntendo University and underwent advanced training in hematology and oncology. Over the past two decades, he has focused his career on improving outcomes for patients with acute leukemia, myelodysplastic syndromes (MDS), and bone marrow failure syndromes through innovative transplant strategies and molecular monitoring.

He is actively engaged in clinical trials, translational studies, and registry-based research, particularly related to graft-versus-host disease (GVHD), minimal residual disease (MRD), and donor selection optimization. His work integrates molecular biology with clinical practice, aiming to individualize therapy and reduce transplant-related complications.

Dr. Onozawa is a respected member of the Japanese Society of Hematology, Japanese Society for Hematopoietic Cell Transplantation, and EBMT, and has published widely in peer-reviewed journals. He frequently lectures at national and international conferences and contributes to the training of medical students, residents, and young specialists in hematology.

His dedication to advancing the science and practice of hematopoietic cell transplantation has positioned him as a recognized expert in the Asia-Pacific region and beyond.

Strategies for Preventing and Managing HBV Reactivation after Allogeneic HSCT.

Hepatitis B virus (HBV) reactivation remains a major concern in recipients of allogeneic hematopoietic stem cell transplantation (allo-HSCT) with resolved HBV infection. While HBV-DNA-guided preemptive nucleos(t)ide analog (NA) therapy effectively reduces the risk of HBV-related hepatitis, strategies for safely discontinuing NAs and preventing recurrent reactivation remain unclear. We conducted a nationwide retrospective study in Japan to assess outcomes after NA cessation in 72 patients who developed HBV reactivation post-allo-HSCT. Among them, 24 discontinued NAs during follow-up, and 46% experienced a second HBV reactivation. The risk of recurrence was higher in patients with low anti-HBs titers at NA cessation. Multiple reactivations were also observed in some cases, underscoring the need for continued HBV-DNA monitoring and the potential importance of protective anti-HBs levels for safe NA discontinuation.

To explore immunization as a preventive strategy, we conducted a prospective randomized controlled trial (PREVENT HBV) to assess the efficacy of post-transplant hepatitis B (HepB) vaccination. At day 140 after allo-HSCT, 64 patients were randomized to receive the HepB vaccine or no intervention. Although the difference in HBV reactivation rates was not statistically significant between groups (18% vs. 29%), no reactivations occurred after patients achieved a successful immune response to the vaccine. These findings suggest that effective HBV vaccination post-transplant may provide long-term protection.

In conclusion, our studies support a multipronged strategy combining vigilant HBV-DNA monitoring, preemptive NA therapy, and post-transplant vaccination to manage HBV reactivation risk. Even if HBV reactivation occurs, preemptive NA therapy can prevent hepatitis, and once vaccine-induced immunity is achieved, NAs may be safely discontinued without significant risk of further reactivation.

Nguyen Ba Khanh

DR. NGUYEN BA KHANH MD, PHD

National Institute of Hematology and Blood Transfusion
Hanoi Medical University

Dr. Nguyen Ba Khanh graduated from Hanoi Medical University as a general doctor in 2010. He then continued his studies as a resident doctor in Hematology and Blood Transfusion in the Hematology Department of Hanoi Medical University. Since 2014, he has been serving as a lecturer in the Department of Hematology at Hanoi Medical University. Additionally, he has been employed at the Stem Cell Bank of the National Blood Center within the National Institute of Hematology and Blood Transfusion, where he concentrates on research related to stem cell creation and transplantation. In 2021, he obtained his doctoral degree in Hematology and Blood Transfusion from Hanoi Medical University.

During his tenure at the National Institute of Hematology and Blood Transfusion, as well as Hanoi Medical University, Dr. Khanh participated in numerous training programs focused on HLA typing, hematopoietic stem cell applications, and cellular therapy. He served as the primary author or co-author of various scholarly articles and scientific studies focused on the development, testing, and application of hematopoietic stem cells. In 2023, he was appointed as the Director of the Stem Cell Bank, and in 2024, he assumed the position of Deputy Director of the National Blood Center at the National Institute of Hematology and Blood Transfusion.

Results of apheresis granulocyte transfusion application for treating neutropenic patients with severe infection at the national institute of hematology and blood transfusion from 2019 to 2024

Nguyen Ba Khanh[1,2], Quan Minh Anh[2], Do Quang Linh[1],
Do Thi Thuy[1], Nguyen Thi Nhung[1], Tran Ngoc Que[1],
Vo Thi Thanh Binh[1], Nguyen Ha Thanh[1,2]
[1]National Institute of Hematology and Blood Transfusion
[2]Hanoi Medical University

Background: In the treatment of hematological diseases, the neutropenic phase may lead to severe infection and a high risk of death in patients. Granulocyte transfusion (GT) is an effective solution for patients with severe infections, especially in cases ofmultiple drug resistance. However, the role of this method is not universally agreed upon in many studies. Therefore, it is crucial to conduct related studies in clinical practice to gather more evidence regarding the effectiveness of this method. Objectives: To analyze the results of applying apheresis GT for the treatment of neutropenic patients with severe infections at the National Institute of Hematology and Blood Transfusion. Subjects and methods: A retrospective, longitudinal study of 26 patients who underwent allogeneic stem cell transplantation and were diagnosed with neutropenia and severe infection, receiving 65 apheresis GT in the Stem Cell Department, NIHBT, from 2019 to 2024. Patient characteristics, granulocyte units, and improvements in clinical and laboratory indices were analyzed. Results: Of the patients, 80.8% were diagnosed with sepsis, among whom 85.7% experienced two or more infectious pathogens, including bacteria or invasive fungi. Among the 26 patients, 11 developed septic shock and seven faced rejection. The median duration from the conditioning regimen to neutropenia was 10.5 days, from febrile neutropenia diagnosis to GT was nine days, and neutrophil recovery lasted 14 days. The median neutrophil count in each unit was 2.56 × 10^10 cells. Each transfusion resulted in a median increase in neutrophil count of 0.52 × 10^9/L, and there was a 1-point decrease in the SOFA score. The initial response rate was 80%, with survival rates following GT of 92.4% after seven days and 88.5% after 30 days, respectively. Among the seven patients who experienced graft rejection, three were effectively treated with salvage transplantation supported by GT. Mortality is primarily attributed to a lack of engraftment. Key factors associated with successful GT treatment included earlier initiation of GT, absence of septic shock before GT, fewer than two pathogens, decreased SOFA score, and presence of engraftment. Conclusions: The application of apheresis GT has a high response rate and leads to an improvement in infection status in patients with engraftment potential.

Takehiko Mori

TAKEHIKO MORI, M.D., PH.D.

Professor, Department of Hematology, Institute of Science Tokyo

Professor Takehiko Mori is a senior hematologist and renowned expert in hematopoietic stem cell transplantation, currently serving as Professor in the Division of Hematology at Tokyo Medical and Dental University. With over 30 years of academic and clinical experience, he has made substantial contributions to the treatment of hematologic malignancies and the management of transplant-related complications.

Professor Mori graduated from Keio University School of Medicine in 1993 and completed his postgraduate training in internal medicine and hematology at the same institution. His academic journey includes decades of service at Keio University, where he rose through the ranks from lecturer to assistant and associate professor, before being appointed as professor at Tokyo Medical and Dental University in 2021.

His clinical and research interests focus on hematological disorders, allogeneic stem cell transplantation, and opportunistic infections in immunocompromised patients. He has been involved in numerous studies aimed at improving transplant outcomes and supportive care strategies, especially in high-risk patient populations.

Professor Mori is an active member of several leading scientific organizations, including the Japan Society of Hematology, the Japanese Society for Transplantation and Cellular Therapy, the Asia-Pacific Blood and Marrow Transplantation Group, EBMT, and the Multinational Association of Supportive Care in Cancer. He frequently contributes to international collaborative research and is a regular speaker at hematology and transplantation conferences across Asia and Europe.
His long-standing dedication to education, clinical excellence, and innovation in hematology has established him as a highly respected figure in the field, both in Japan and internationally.

BK polyomavirus infection after hematopoietic cell transplantation

BK polyomavirus (BKPyV) is a member of the genus Polyomavirus, a pathogen that is well recognized to cause hemorrhagic cystitis and nephritis, mainly after hematopoietic cell transplantation (HCT) or kidney transplantation. Primary infection with BKPyV is considered to occur in early childhood and thus a seropositivity rate reaches up to 90% in children 5 to 9 years of age. On the basis of such high seropositivity, BKPyV-associated diseases are considered to occur as the reactivation of intrinsic BKPyV under an intensive immunosuppressive condition such as HCT. Since the transmission routes of BKPyV remain unelucidated, however, nosocomial infection is possible among the recipients of HCT. Therefore, we have evaluated the PCR products of BKPyV DNA obtained from 9 patients developing HC due to BKPyV during a 6-month period in a Hematology/HCT ward. Six had subtype I, 2 subtype IV, and 1 subtype II or III. In the alignment of sequences, four and two of the six subtype I strains were completely homologous, suggesting a nosocomial infection. We also evaluated the BKPyV viremia after allogeneic HCT. The cumulative incidence of BKPyV viremia was 27.9%. BKPyV viremia itself did not affect post-transplant estimated glomerular filtration rate (eGFR); however, BKPyV viremia of high viral load was significantly associated with decreased eGFR. In addition, BKPyV viremia was associated with a significantly lower progression-free survival at 3 years (35.1% vs. 60.4%). The findings in our study suggest that BKPyV viremia was associated with the negative impact of renal function and survival after allogeneic HCT. We will summarize our findings of BKPyV infection after HCT and propose future studies to further elucidate its pathogenesis.

Nurse Session 3

CAR-T cell therapy

Chairman: Miho Suzuki, Huynh Thien Ngon
Hall: VIP 3-4
Time: 15:45 -17:15

01

Key Nursing Points for
CAR-T Cell Therapy
Mayumi Sumita, Hokkaido

02

Adoptive Cellular Therapy post HSCT (online)
Pham Thi Ngoc Anh, Singapore

03

CAR-T Cell Therapy Experience in Taiwan (online)
Hung, Yen-Ping, Taipei

MAYUMI SUMITA

MAYUMI SUMITA / NURSE

PHAM THI NGOC ANH

PHAM THI NGOC ANH, MN

HUNG YEN-PING

HUNG YEN-PING, RN

Mayumi Sumita

MAYUMI SUMITA / NURSE

Department of Hematology, Hokkaido University Hospital

Mayumi Sumita is a Registered Nurse currently serving in the Department of Hematology at Hokkaido University Hospital, Japan. She began her nursing career in 1999 after graduating from Kitami Red Cross Nursing School, and has over 25 years of clinical experience in hematology and oncology nursing.

Ms. Sumita holds a national nursing license in Japan and became a Certified Nurse in Cancer Chemotherapy Nursing in 2010, reflecting her deep commitment to providing specialized care for cancer patients.

She spent much of her professional career at Kitami Red Cross Hospital, where she gained broad experience in patient care. In 2024, she joined Hokkaido University Hospital, where she continues to support patients undergoing hematologic treatment and chemotherapy, contributing her expertise to one of Japan's leading medical institutions.

Ms. Sumita is dedicated to clinical excellence, patient safety, and continuous professional development in the field of cancer care.

Key Nursing Points for CAR-T Cell Therapy - Insights from Our Experience in Japan

In the mid of the 19th century, there were no curative therapies for hematological malignancies. Despite remarkable progress of medical treatment, there are still many relapsed/refractory (r/r) patients. In 2019, the Japanese Ministry of Health, Labour and Welfare (MHLW) approved only for the treatment of patients with r/r B-cell acute lymphoblastic leukemia and r/r large B-cell lymphoma (LBCL). As of 2025, four types of CAR-T cells (tisagenlecleucel, axicabtagene ciloleucel, lisocabtagene maraleucel, and idecabtagene vicleucel) are available for clinical use in Japan, and their application has been expanded to be applicable to r/r follicular lymphoma and r/r multiple myeloma. Our hospital was the first facility in Japan to perform CAR-T cell therapy for LBCL in 2016, and we have provided approximately 150 patients to date.

Cytokine Release Syndrome (CRS) and Immune Effector Cell-Associated Neurotoxicity Syndrome (ICANS) are representative adverse events that require during hospitalization. The characteristic symptom of CRS is fever, which can worsen to respiratory failure and hypotension in severe cases. The incidence varies depending on the disease and type of CAR-T cells, but CRS is observed in 45–93% of cases, with Grade 3 or higher severe CRS occurring in 0–50% of cases. ICANS may occur during or more commonly after CRS symptoms, and may manifest as delirium, encephalopathy, aphasia, difficulty concentrating, agitation, tremor, seizures, and cerebral edema. ICANS was observed in 5–65% of cases, with severe ICANS (Grade 3 or higher) occurring in 1–34% of cases. Since it can be fatal, appropriate management is required.

In this session, I will provide an overview of nursing care for these adverse events following CAR-T cell infusion. In addition, I will present actual case that we have experienced to have a better understanding.

Pham Thi Ngoc Anh

PHAM THI NGOC ANH, MN

KK Women's and Children's Hospital

Pham Thi Ngoc Anh, MN, is a Senior Nurse Clinician and certified Advanced Practice Nurse (APN) in Paediatric Haematology and Oncology at KK Women's and Children's Hospital, Singapore. With over 19 years of nursing experience, she has developed deep expertise in oncology care, particularly in haematopoietic stem cell transplantation (HSCT) and cellular therapy.

She holds a Master of Nursing from the National University of Singapore and completed advanced training in Stem Cell Transplantation with the European Society for Blood and Marrow Transplantation (EBMT). In her clinical role, Ms. Pham provides inpatient and outpatient care to children undergoing transplant and immunotherapy, collaborating closely with oncologists, transplant physicians, and nursing teams to ensure safe and high-quality care delivery.

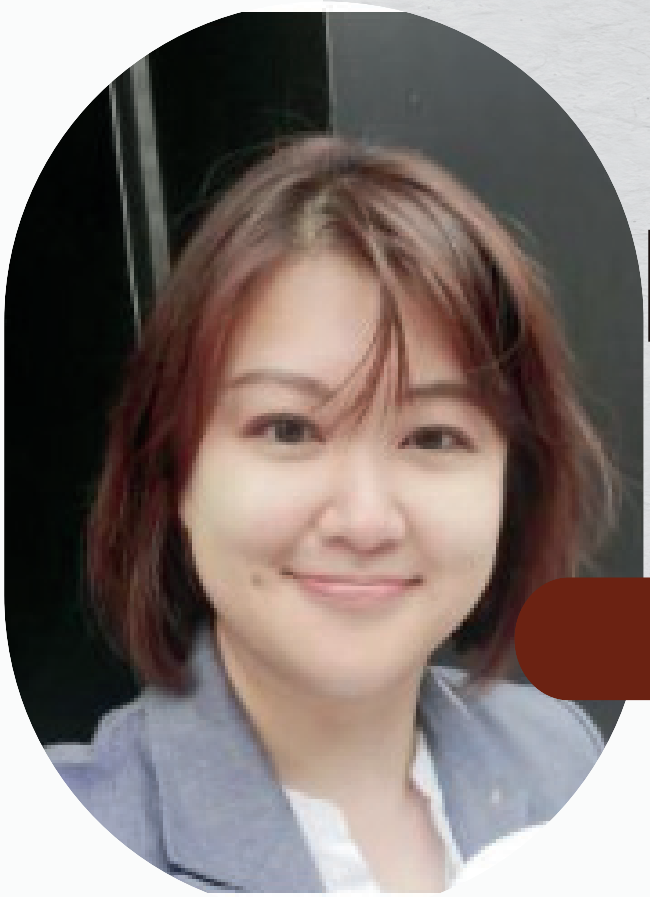
As a passionate educator, she actively mentors APN interns and Master of Nursing candidates, and contributes to curriculum development in paediatric oncology and transplant nursing. She currently serves as the Institutional Lead for Global Nursing at the SingHealth Duke-NUS Global Health Institute (SDGHI), supporting training and knowledge exchange across the Asia-Pacific region, especially in Vietnam.

Ms. Pham also contributes to health system development and policy. She is a member of several Ministry of Health (MOH) workgroups, including the APN Internship Committee and the APN Development Workgroup, helping to shape the future of advanced nursing practice in Singapore.

She has presented at numerous local and international conferences, including SIOP, APHON, and APBMT, and is actively involved in research initiatives focused on clinical outcomes, paediatric cellular therapy, and nursing education. Her commitment lies in advancing the role of nursing in specialized care, fostering international collaboration, and building sustainable education programs to improve paediatric oncology outcomes globally.

Adoptive Cellular Therapy post HSCT

Adoptive cellular therapy has emerged as a significant advancement in managing post-transplant complications, including viral reactivation, mixed chimerism, and immune reconstitution. This therapeutic approach demonstrates marked advantages over conventional treatments, offering improved patient outcomes. As frontline healthcare providers, nurses play a pivotal role in care delivery, patient monitoring, and family education. Therefore, continuous nursing education and competency development in cellular therapy are essential to ensure optimal patient care and treatment success.



Hung Yen-Ping

HUNG YEN-PING, RN

Department of Hematology, Hokkaido University Hospital

Yen-Ping Hung, RN, is the Head Nurse at the Department of Nursing, National Taiwan University Hospital (NTUH), Taiwan. With over two decades of experience in hematology and oncology nursing, she plays a pivotal role in advancing evidence-based nursing care for patients undergoing hematopoietic stem cell transplantation and cellular therapies.

Ms. Hung began her career at NTUH in 1999 and has held various roles, including Nurse Practitioner in oncology and Head Nurse in both the Hematology Department and the Cell Therapeutics Center. Her clinical expertise includes central line care, infection prevention, and patient-centered oncology nursing.

She is an active member of multiple professional organizations, including the Taiwan Society of Blood and Marrow Transplantation, Taiwan Oncology Nursing Society, and the Taiwan Association of Nurse Practitioners.

Ms. Hung has presented extensively at international conferences, including the Asia-Pacific Bone Marrow Transplantation Congress, the International Council of Nurses, and the Asian Oncology Nursing Society Conference. Her work focuses on improving patient safety, enhancing fertility-related decision-making in cancer care, and developing innovative nursing strategies in transplant settings.

She has co-authored numerous peer-reviewed publications and continues to contribute to nursing research and education, making her a leader and advocate in the field of hematology and oncology nursing in Taiwan and beyond.

CAR-T cell therapyexperience-Taiwan

Yen-Ping Hung1,2, Shun-Ying Wang3, Jui-YiChen1, Ming Yao2
1.Department of Nursing,National Taiwan University Hospital, Taipei, Taiwan
2. Hematology &Cellular Therapeutics Center,National Taiwan University Hospital, Taipei, Taiwan
3.Department of NursingNational Taiwan University Cancer Center, Taipei,Taiwan

The development and implementation of CAR-T cell therapy in Taiwan have significantly advanced the treatment landscapefor hematologic malignancies. Since its introduction, 8 major medical centers such as National Taiwan University Hospital have pioneered the clinical application of CAR-T therapysince 2022 September, particularly for patients with relapsed or refractory B-cellacute lymphoblastic leukemia(ALL) and diffuse large B-cell lymphoma (DLBCL). The Taiwan Food and Drug Administration (TFDA) has approved commercial CAR-T products like Kymriah (tisagenlecleucel), and Taiwan's National Health Insurance began covering CAR-T therapy in 2023, improving patient access to this innovative treatment.

Clinical teams in Taiwan have developed comprehensive protocols to manage the entire CAR-T process, from leukapheresis and cell manufacturing to infusion and post-treatment monitoring, ensuring patient safety and optimaloutcomes. Early experiences demonstrate promising remission rates and manageable side effects, reflecting the therapy's potential to transform care for patients with limited treatment options. Additionally, domesticbiotechnology companies are actively conducting clinical trials to develop local CAR-T products, aiming to expand indications and enhance therapeutic efficacy. Overall, Taiwan's CAR-T cell therapy experience highlights a successful integration of cutting-edge immunotherapy into clinical practice, offering new hope for patients battling hematologic cancers.

POSTER SESSION

Hall: BALLROOM HALL
Time: 17:15 - 18:15

Nurse Oral Presentation

Chairman: Manisha Makwana

Hall: VIP 3-4
Time: 17:15 - 18:15

THE 30th ANNUAL CONGRESS OF ASIA-PACIFIC BLOOD AND MARROW TRANSPLANTATION GROUP

September 19th, 2025

CURRICULUM VITAE AND ABSTRACT

Session 6

CAR-T Cell Therapy Laboratory aspect

Chairman: Yoshiki Akatsuka, Phan Thi Xinh
Hall: BALLROOM 1
Time: 08:30 - 10:00

01

Development of piggyBac transposon method, a non-viral gene delivery platform, for CAR-T manufacturing for clinical trials
Yoshiyuki Takahashi, Nagoya

02

CAR T –Cell therapy in Resource Limited Setting
Gaurav Narula, Munbai

03

Point-of-care manufacturing of CAR-T cell therapy in Vietnam: Opportunity - Challenge – Solution
Cao Sy Luan, Ho Chi Minh

YOSHIYUKI TAKAHASHI

YOSHIYUKI TAKAHASHI, M.D., PH.D

GAURAV NARULA

DR. (SURG CDR) GAURAV NARULA, MD, DNB

CAO SY LUAN

CAO SY LUAN MD, PH.D

Yoshiyuki Takahashi

YOSHIYUKI TAKAHASHI, M.D., PH.D

Professor and Chairman, Department of Pediatrics
Nagoya University Graduate School of Medicine, Japan

Dr. Yoshiyuki Takahashi is a renowned pediatric hematologist specializing in hematopoietic stem cell transplantation, bone marrow failure syndromes, and cancer immunotherapy. Since October 2016, he has served as Professor and Chairman of the Department of Pediatrics at Nagoya University, which houses one of Japan's leading pediatric stem cell transplantation centers and has been designated the Best Childhood Cancer Center in Japan since 2013.

Dr. Takahashi is at the forefront of clinical research on CAR-T cell therapy, pioneering the use of a patented non-viral vector method for CD19-targeted therapy in pediatric acute lymphoblastic leukemia and malignant lymphoma. He also serves as the principal investigator for a prospective multicenter clinical trial on high-risk neuroblastoma under the Japan Neuroblastoma Study Group.

He earned his M.D. from Nagoya University School of Medicine in 1992 and completed his Ph.D. in Medical Science at the same institution in 2000. His career includes extensive clinical and research training in Japan and the United States, including a fellowship at the National Institutes of Health (NIH), where he contributed to groundbreaking work in tumor immunology and transplantation.

Dr. Takahashi is a director of several national societies, including the Japan Society for Hematopoietic Cell Transplantation and the Japanese Pediatric Society of Hematology/Oncology. He has authored numerous peer-reviewed publications in international journals and continues to lead clinical innovation in pediatric oncology and regenerative medicine.

Development of piggyBac transposon method, a non-viral gene delivery platform, for CAR-T manufacturing for clinical trials

Background: Chimeric antigen receptor-modified T cells targeting CD19 (CD19.CAR-T cells) have shown clinical success in patients with hematological malignancies. However, a major concern for its global spread, especially in developing countries, is the high cost of CAR-T manufacturing.

Methods: We developed a method of non-viral gene transfer using piggyBac transposon to reduce the cost of CAR-T cell production. We started a human clinical trial to define feasibility, toxicity, maximum tolerated dose and clinical response of CD19.CAR-T cells in patients with relapsed or refractory B-ALL (jRCTa040190099). We engineered autologous T cells via the piggyBac transposon system with CD19.CAR-expression transposon vector and piggyBac transposase-expression vector to express CD19.CAR incorporating CD28 costimulatory domain. We designed this phase I trial using a modified 3 + 3 design to enroll 12 patients with relapsed or refractory acute lymphoblastic leukemia in both children and adults. In this study, patients in cohorts 1 (16-60 years old) and 2 (1-15 years old) receive 1×10^5 CAR-transduced T cells per kg. Patients in cohorts 3 and 4 (1-60 years old) receive 3×10^5 and 1×10^6 CAR-transduced T cells per kg, respectively.

Results: None of the patients had dose-limiting toxicities (DLT) in cohort 1,2 and 3.Expansion of piggyBac CAR-T cells was observed in the peripheral blood of all patients treated with the drug. Two patients in cohorts 1 and 2, which received the lowest dose, experienced recurrence, but no recurrence has occurred in cohorts 3 and 4 to date, and the 2-year disease-free survival rate and survival rate were 81.0%. Nagoya University signed a material transfer agreement to support piggyBac transposon mediated CAR-T cell therapy programs with Chulalongkorn University in Thailand and BTH hospital in Vietnam respectively.

Conclusions: PiggyBac transposon, a non-viral vector system, could be used for the production of CAR-T cells. Especially in Asian developing countries, it is important to reduce the manufacturing cost of CAR-T cells.

Gaurav Narula

DR. (SURG CDR) GAURAV NARULA, MD, DNB

Professor Pediatric Oncology & Health Sciences
Tata Memorial Center, Homi Bhabha National Institute, Mumbai

Dr. (Surg Cdr) Gaurav Narula is a Professor of Pediatric Oncology & Health Sciences at Tata Memorial Centre, Homi Bhabha National Institute, Mumbai, India. With over three decades of experience in pediatric hematology-oncology, Dr. Narula is a pioneer in cell and gene therapies in India. He serves as Principal Investigator at the CAR T- & Cell Therapy Center (CTCTC), leading the development of India's first indigenously approved CAR-T cell product in collaboration with IIT Bombay and the National Cancer Institute, USA.

Dr. Narula plays a key role in national multicenter clinical trials as Study Chair of the Indian Pediatric Hematology Oncology Group (InPHOG), with a focus on childhood leukemia, Hodgkin lymphoma, histiocytic disorders, and cancer-associated thrombosis.

An active contributor to global scientific discourse, Dr. Narula has published over 200 peer-reviewed articles, and delivered prestigious orations including the BGRC Oration and ICON Conference keynote. He is a founding member of the Indian Association of Cell & Gene Therapy and the Immuno-Oncology Society of India, and a life member of SIOP and other professional bodies. His work continues to shape the future of pediatric oncology and cellular therapies in low- and middle-income countries.

CAR T-cell Therapy in Resource Limited Setting

While outcomes of B- Acute Lymphoblastic Leukemia (B-ALL) in children, adolescents and young adults has greatly improved over the decades to consistently over 95% in the developed countries, it hovers around 70-75% in more resource limited settings in nations like India. The critical difference now comes from the management of relapsed/refractory diseases. White allogenic stem cell transplant (Allo-SCT) has been the standard option for patients in this situation, it is highly resource- intensive requiring infrastructure highly trained personnel and extensive supportive care making it challenging to deal with the high volumes of patients that we deal with. Alternative and complimentary strategies are thus even more needed in lower resource settings. The success and high-response rates of CAR T-cell cell therapy in r/r B- ALL provided an appealing solution. The challenge was to be able to replicate the success of developed countries indigenously and at an affordable cost.

With this aim, we embarked on a project to develop a novel CD19 -directed CAR T-cell product manufactured by semi- automated processes that could be taken to early-phase clinical trials. This was a collaborative endeavor of Tata Memorial Center & the Indian Institute of Technology in Mumbai, and subsequently the technology was licensed out to ImmunoACT. Based on the success of the phase 1 & 2 trials, the product is now approved for use in relapsed/ refractory B-ALL and B- NHL. The clinical trials, since published, have reported high efficacy and low toxicity rates and the product is available at a cost of less than USD 30000, making it widely accessible and a viable option for many patients. Key results from the pre-clinical studies and clinical trials will be presented along with a suggested algorithm for use in r/r B- ALL. The development of of this first Cell and Gene therapy in India has been followed by a rapid increase in the number of clinical trials of novel and collaborative products. A healthy ecosystem now exists with infrastructure and expertise to develop new therapies through the R & D stage right though manufacturing, clinical trials and commercialization. The government is also now taking a more pro-active role in supporting innovation with a big thrust for bio manufacturing making this an exciting time for the growth of Cell & Gene therapy in the region.

Cao Sy Luan

CAO SY LUAN MD, PH.D

Blood Transfusion Hematology Hospital

Dr. Cao Sy Luan graduated with a PhD in Medical Sciences from University of Tsukuba, Japan. Dr. Cao Sy Luan has done a lot of studies in applying molecular genetics in diagnosis, prognosis and monitoring treatment response of hematological malignancies in Blood Transfusion Hematology hospital (BTH). Based on the result studies, there have many new molecular tests established in BTH in order to improve diagnosis, prognosis and monitoring treatment response.

Dr. Cao Sy Luan is an expert in molecular genetics, stem cell (especially hematopoietic stem cells and mesenchymal stem cells as well as other components of bone marrow microenvironment), and gene and cell therapy, such as gene editing, stem cell therapy and cellular immunotherapy (CAR-T cell, CAR-NK cell, etc.).

Dr. Cao Sy Luan is the author and co-author of more than 20 scientific papers as well as the chief and member of more than 20 scientific projects. He has also had the scientific presentation and participated in more than 20 intranational and international conferences.

Point-of-care manufacturing of CAR-T cell therapy in Vietnam: Opportunity - Challenge - Solution

Cao Sy Luan[1], Tran The Vinh[1], Satoshi Suzuki[3], Rowaida Alahmadi[3], Phu Chi Dung[1], Phan Thi Xinh[1,2], Yoshiyuki Takahashi[3]

[1] Blood Transfusion and Hematology Hospital, Ho Chi Minh City, Vietnam.

[2] The University of Medicine and Pharmacy at Ho Chi Minh City, Vietnam.

[3] Department of Pediatrics, Nagoya University Graduate School of Medicine, Nagoya, Japan.

Chimeric antigen receptor (CAR) T-cell therapy represents a significant advancement in adoptive cell transfer immunotherapy by genetically modifying T cells. This innovative therapy is poised to become a powerful instrument for treating otherwise incurable hematological malignancies, supplementing existing medical treatments. To date, CAR T-cell therapy has been approved for treatment in relapsed or refractory B-cell malignancies, including B-cell acute lymphoblastic leukemia (B-ALL), non-Hodgkin lymphoma (NHL), and multiple myeloma (MM). Currently, the most prevalent targets in CAR T-cell therapy include CD19 and BCMA, while a range of novel therapeutic targets is under investigation. As of now, the Food and Drug Administration (FDA) has authorized seven distinct CAR T-cell therapies that are commercially available. However, the high cost of these products, estimated at approximately half a million dollars per dose, presents a considerable financial obstacle for economically disadvantaged patients and individuals in developing countries. In response to this issue, in-house CAR T-cell therapy utilizing point-of-care (PoC) manufacturing emerges as a viable alternative for countries such as Vietnam. This PoC model offers several advantages compared with commercial manufacturing, including reduced costs, shortened production timelines, increased accessibility, and enhanced patient convenience. There are various methods for in-house CAR T-cell manufacturing, categorized by the type of equipment used, such as automated, semi-automated, and manual processes. On the other hand, there are two main approaches for transgene delivery in CAR-T cell manufacturing: viral and non-viral. While viral transduction methods demonstrate high transfection efficacy, they are associated with significant costs. Conversely, non-viral gene delivery methods, including CRISPR/Cas9, transposons, and mRNA transfection, are cost-effective but typically exhibit lower transfection rates. Recent studies have indicated improvements in the transduction efficiency of non-viral methods. In light of these promising advancements, the PoC manufacturing of CAR T-cell therapy using non-viral methods emerges as a viable solution, presenting opportunities for the treatment of patients with hematological malignancies in Vietnam.

Key words: chimeric antigen receptor T-cell therapy, hematological malignancies, relapsed/refractory B-cell malignancies, point–of–care, non-viral method.

Session 7
Pediatric HSCT (malignancy)

Chairman: Usanarat Anurathapan, Cai Thi Thu Ngan
Hall: BALLROOM 2
Time: 08:30 - 10:00

01

CMV infection in Pediatric Hematopoietic Stem Cell Transplantation in Low & Middle-Income Countries
Hany Ariffin, Kuala Lumpur

02

Hematopoietic stem cell transplantation in children with acute leukemia at the Ho Chi Minh City Hematology and Blood Transfusion Hospital, Vietnam
Huynh Nghia, Ho Chi Minh

03

A nationwide phase II study of delayed local treatment for children with high-risk neuroblastoma: the Japan Children's Cancer Group Neuroblastoma Committee Trial JN-H-11 and JN-H-15
Kimikazu Matsumoto, Tokyo

HANY ARIFFIN

PROFESSOR HANY ARIFFIN MBBS PHD

HUYNH NGHIA

ASSOCIATE PROFESSOR HUYNH NGHIA, MD, PHD

KIMIKAZU MATSUMOTO

KIMIKAZU MATSUMOTO MD, PHD

Hany Ariffin

PROFESSOR HANY ARIFFIN MBBS PHD

Professor of Paediatrics, Universiti Malaya and Head of Paediatric Haematology-Oncology & BM Transplant Unit, Universiti Malaya Medical Centre, Kuala Lumpur, Malaysia

Professor Hany Ariffin is a Senior Consultant in Paediatric Haematology-Oncology and Bone Marrow Transplantation and Head of the Biobank Unit at the University of Malaya Medical Centre, Kuala Lumpur. She also serves as Professor of Paediatrics at the University of Malaya, where she has led clinical and research initiatives for over two decades.

Prof. Ariffin is internationally recognized for her work in childhood leukemia, survivorship, and cancer predisposition syndromes. Her research has contributed to landmark studies in minimal residual disease-guided therapy, germline TP53 mutations, and the long-term effects of cancer therapy in children. She has secured national and international grants focused on improving outcomes and quality of life for childhood cancer survivors.

She serves in key leadership roles including Chairperson of the VIVA-Asia BMT Consortium and Co-Chair of the Asian Childhood Cancer Alliance, and sits on advisory boards for the St. Jude Global Alliance. Prof. Ariffin has authored over 170 peer-reviewed publications, and is a Fellow of the Royal College of Paediatrics and Child Health (UK) and the Academy of Science Malaysia.

CMV infection in Pediatric Hematopoietic Stem Cell Transplantation in Low & Middle-Income Countries

Cytomegalovirus (CMV) establishes lifelong latency after primary infection and can periodically reactivate, often with viral shedding. In immunocompetent individuals, both primary and recurrent infections are typically asymptomatic or mild. However, in immunosuppressed allogeneic hematopoietic stem cell transplant (allo-HSCT) recipients, particularly those undergoing HLA-haploidentical transplants, CMV reactivation can cause serious morbidity, mortality, and increased healthcare costs.

In low- and middle-income countries, especially in Asia, CMV poses a significant challenge in the management of children undergoing HSCT due to high seroprevalence, limited access to newer antivirals (e.g., letermovir, maribavir), and a lack of pediatric-specific data. Diagnostic limitations— such as the inability to perform genotypic testing for UL97 or UL54 mutations— can delay identification and management of ganciclovir-resistant CMV strains.
The financial burden of CMV treatment is considerable, particularly in settings without comprehensive subsidies. In Malaysia, a two-week hospital stay for antiviral therapy can cost around USD 2,400, often paid out-of-pocket. Second-line drugs like foscarnet (USD 280/vial) and cidofovir (USD 1,500/vial) further increase costs, limiting patient access to optimal care.

Beyond drug costs,CMV reactivation incursbroader economic impacts,including prolonged hospitalization, additional testing, and loss of parental income. Our findings suggest that prophylactic use of anti-CMV agents in high-risk patients may be justified. Despite higher initial costs, such strategies could improve outcomes and reduce overall resource use.

Huynh Nghia

ASSOCIATE PROFESSOR HUYNH NGHIA, MD, PHD

Vice Dean, Faculty of Medicine – University of Medicine and Pharmacy at Ho Chi Minh City (UMP-HCM)
Head, Department of Hematology – Faculty of Medicine, UMP-HCM
Head, Pediatric Hematology Department 2 – Blood Transfusion Hematology Hospital (BTHH)

Assoc. Prof. Huynh Nghia obtained his Medical Doctor degree from the University of Medicine and Pharmacy at Ho Chi Minh City in 1988. Since that time, he has been serving as a lecturer in the Department of Hematology, Faculty of Medicine, at the same university. In 2008, he completed his PhD in Medicine with a specialization in Hematology and Blood Transfusion, subsequently achieving the academic title of Associate Professor in 2015.

At present, Assoc. Prof. Huynh Nghia holds the positions of Vice Dean of the Faculty of Medicine and Head of the Department of Hematology at UMP-HCM. In addition, he is the Head of Pediatric Hematology Department 2 at the Blood Transfusion Hematology Hospital. He has engaged in various medical training programs, including Good Clinical Practice (GCP) and Evidence-Based Medicine (EBM), both organized by the Ministry of Health. He also participated in a training course on umbilical cord blood stem cell transplantation held in Tokyo, Japan, in 2000.

Assoc. Prof. Huynh Nghia has presented as a speaker and served as chairperson at numerous national and international conferences focused on hematology and oncology. Furthermore, he has authored and co-authored an extensive range of scientific publications in national and international medical journals, contributing significantly to the field.

Hematopoietic Stem Cell Transplantation in Pediatric Acute Leukemia at Ho Chi Minh City Blood Transfusion and Hematology Hospital, Vietnam

Resident Physician Nguyen Hieu Thuan, Assoc. Prof. Dr. Huynh Nghia.
Blood Transfusion and Hematology Hospital, Ho Chi Minh City, Vietnam

Background: Acute leukemia is the most common pediatric malignancy. Although chemotherapy remains the mainstay of treatment, relapse continues to pose a major challenge. Hematopoietic stem cell transplantation (HSCT), including allogeneic (allo-HSCT) and haploidentical (haplo-HSCT) modalities, provides a curative option for high-risk or relapsed patients, especially those lacking fully HLA-matched donors.

Objective: To evaluate the initial treatment outcomes of allo-HSCT and haplo-HSCT in pediatric patients with acute leukemia at the Blood Transfusion and Hematology Hospital in Ho Chi Minh City, Vietnam.

Methods: This retrospective case series included 45 pediatric patients with acute leukemia who underwent HSCT between January 2017 and December 2024. Thirty-two patients received allo-HSCT, while thirteen received haplo-HSCT. All patients were transplanted with peripheral blood stem cells. Donor sources included matched siblings, parents, and one matched unrelated donor.

Results: Engraftment was achieved in 30 of 32 allo-HSCT patients and 11 of 13 haplo-HSCT patients. Median times to neutrophil and platelet recovery were 16 and 18 days (allo-HSCT), and 18 and 21 days (haplo-HSCT), respectively. Post-transplant infections were reported in over 90% of patients. Two transplant-related early deaths occurred in each group. After a median follow-up of 23 months (range: 2–70), the estimated 2–3-year overall survival (OS) and event-free survival (EFS) rates were 72% and 69% in the allo-HSCT group, and 60% and 55% in the haplo-HSCT group.

Conclusion: HSCT is a safe and effective treatment for pediatric acute leukemia. Haploidentical transplantation is a promising alternative for patients without fully matched donors

Kimikazu Matsumoto

KIMIKAZU MATSUMOTO MD, PHD

Director, Children's Cancer Center, National Center for Child Health and Development, Tokyo, Japan

Dr. Kimikazu Matsumoto, M.D., is Director of the Children's Cancer Center at the National Center for Child Health and Development, Tokyo, Japan. With over three decades of experience in pediatric oncology, Dr. Matsumoto is recognized for his clinical and research leadership in pediatric stem cell transplantation and the management of pediatric solid tumors, especially neuroblastoma.

Trained at prestigious institutions including the Fred Hutchinson Cancer Research Center (USA), Dr. Matsumoto has played a key role in advancing pediatric hematopoietic cell transplantation in Japan. He has led numerous national collaborative studies and clinical trials, including those under the Japan Children's Cancer Group, focusing on risk-adapted treatments, biomarker-driven diagnostics, and long-term survivorship strategies.

Dr. Matsumoto is Board Certified in Pediatrics, Hematology, and Pediatric Hematology-Oncology, and holds leadership positions in several Japanese hematology and oncology societies. His recent work includes contributions to multicenter studies on pharmacogenetics, neuroblastoma treatment strategies, and transplantation outcomes, with numerous publications in high-impact journals.

A nationwide phase II study of delayed local treatment for children with high-risk neuroblastoma: The Japan Children's Cancer Group Neuroblastoma Committee Trial JN-H-11 and JN-H-15

Kimikazu Matsumoto, Akihiro Yoneda, Hiroyuki Shichino, Kumiko Nozawa, for Neuroblastoma Committee of Japan Children's Cancer Group (JCCG)

Background:

Neuroblastoma Committee (JNBSG) of Japan Children's Cancer Group (JCCG) conducted a phase II nation-wide clinical trial, JN-H-11 and JN-H-15, for high-risk neuroblastoma. These protocols were characterized by "delayed local treatment" in which tumor resection was performed after completing all chemotherapeutic courses including myeloablative high-dose chemotherapy (HDC).

Patients and method

Seventy-five patients with high-risk neuroblastoma were enrolled in JN-H-11 between May 2011 and September 2015 and sixty-five patients were enrolled in JN-H-15 between February 2015 and March 2018. Myeloablative chemotherapies consisted melphalan, etoposide, and carboplatin for JN-H-11 and busulfan and melphalan for JN-H-15.

Results:

For JN-H-11, the estimated 3-year PFS and OS rate were 44.4% and 80.7%, respectively. For JN-H-15, the estimated 3-year PFS and OS rates were 56.1% and 80.3%, respectively. In JN-H-15, we evaluated Curie score at postinduction. There existed no significant difference between patients with a postinduction CS of 2 or less and more than 2 (3-year EFS, 54.8±8.9% (CS<2, n=31) vs. 36.0±16.1% (CS>=2, n=10), p=0.530). For patients with MYCN-amplified tumor, a nearly significant outcome difference existed by postinduction CS. Conversely, for patients with MYCN-nonamplified tumor, there exist no difference by postinduction CS. Delayed resections of primary tumors were performed in 50/52 patients in JN-H-11 and 41/47 patients in JN-H-15, and pathological response rates (Ef2+Ef3) were 74.4% in 43 patients in JN-H-11 and 73.7% in 38 patients evaluated in JN-H-15, respectively. Pathological response did not corelate to either the 3-year-PFS or 3-year-OS.

Conclusion:

Despite of shortness of observation time and lower numbers of enrolled patients in JN-H-15, a postinduction CS of more than 2 in patients with MYCN-nonamplified tumor was not associated with poor progression-free survival. These studies indicated that delayed local treatment is feasible and showed promising efficacy, suggesting that this treatment should be considered further in a comparative study of high-risk neuroblastoma.

Multidisciplinary Session 2

Unrelated donor registry HSCT

Chairman: Tsuneo Takahashi, Tran Trung Dung
Hall: BALLROOM 3
Time: 08:30 - 10:00

01

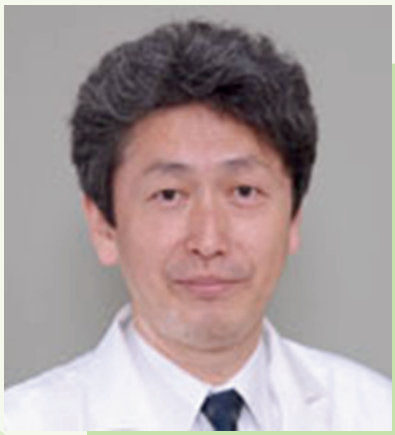
Enhancing Donor Provision Support in the Japan Marrow Donor Program through Behavioral and Digital Strategies
Takahiro Fukuda, Tokyo

02

Is there a place for unrelated donor in HSCT in 2025?
Dominiqe Masson, Lyon

03

Donor Selection in Allogeneic stem cell transplantation (SCT): role of unrelated donor registries
Glen Kennedy, Brisbane



TAKAHIRO FUKUDA

TAKAHIRO FUKUDA, M.D., PH.D

DOMINIQE MASSON

DR. DOMINIQUE MASSON M.D

GLEN KENNEDY

PROFESSOR GLEN KENNEDY M.D

Takahiro Fukuda

TAKAHIRO FUKUDA, M.D., PH.D

Department of Hematopoietic Stem Cell Transplantation, National Cancer Center Hospital, Tokyo, JAPAN.

Dr. Takahiro Fukuda is a distinguished hematologist and transplant physician with more than three decades of clinical and research experience in the field of hematopoietic stem cell transplantation (HCT). He earned his M.D. (1989) and Ph.D. in Medical Science (1996) from Kyushu University, Fukuoka, Japan. Following his residency and early clinical training in internal medicine and hematology, Dr. Fukuda advanced his expertise through research and clinical fellowships at Kyushu University Hospital and the Fred Hutchinson Cancer Research Center in Seattle, USA, where he focused on innovative transplant strategies and post-transplant patient care.

Since joining the National Cancer Center Hospital, Tokyo, in 2005, Dr. Fukuda has played a pivotal role in advancing HCT programs, first as Attending Physician and later as Chief Attending Physician. Since 2010, he has served as Chief of the Department of Hematopoietic Stem Cell Transplantation, overseeing clinical services, research, and program development for both adult and pediatric transplant patients.

Dr. Fukuda's research interests encompass long-term outcomes of transplant survivors, optimization of drug indications in HCT recipients, aggressive adult T-cell leukemia, donor registry advancement, and vaccination strategies for post-transplant patients. He has been a principal investigator on multiple national research initiatives funded by the Health and Labour Sciences Research Grant, the Japan Agency for Medical Research and Development, and the National Cancer Research and Development Fund.

With an extensive record of publications, leadership roles, and contributions to clinical guidelines, Dr. Fukuda is recognized nationally and internationally for his commitment to improving patient outcomes and expanding the therapeutic potential of hematopoietic stem cell transplantation.

Enhancing Donor Provision Support in the Japan Marrow Donor Program through Behavioral and Digital Strategies

In Japan, over 1,000 unrelated bone marrow and peripheral blood stem cell transplantations are performed annually through the Japan Marrow Donor Program (JMDP). Although more than 550,000 individuals are registered as potential donors, 60% are aged between 40 and 54. While younger donors are less likely to withdraw due to health reasons, previous studies have shown that many cancel coordination because of work obligations or lack of family consent. Therefore, reducing donor-driven cancellations remains a critical issue. To strengthen donor provision and reduce cancellations, we implemented a multi-faceted approach that combines behavioral economics, digital tools, and public engagement. To raise awareness of the donor leave system, we distributed 30-second and 5-minute videos through social media and the JMDP website, leading to an increase in annual company inquiries. We conducted a large-scale survey among 20–39-year-old donors (approximately 24,000 JMDP LINE subscribers), based on interviews with donors and their families, to better understand long-term motivation and the influence of family support. An international survey conducted with WMDA partners confirmed the widespread adoption of oral swab-based HLA typing and online registration. This supported Japan's transition toward more convenient and accessible donor registration methods. We also conducted a randomized controlled trial using behavioral economics-informed messaging during early stage of coordination. Messages emphasizing the rarity of HLA compatibility significantly increased confirmatory testing rates, particularly among male donors and those contacted repeatedly. In conclusion, our study demonstrates that a combined strategy—promoting donor leave, supporting family understanding, adopting online tools, and applying behavioral insights—can strengthen the donor provision system and ensure a more sustainable and younger donor pool within the JMDP. These strategies may serve as a model for donor programs across the Asia-Pacific region.

Dominiqe Masson

DR. DOMINIQUE MASSON M.D

Laboratoire HLA-EFS Rhône-Alpes Grenoble, France

Dr. Dominique Masson is a French medical doctor and specialist in immunology, hematology, and histocompatibility, with over three decades of experience in HLA laboratory science and bone marrow transplantation. She served as Director of the HLA Laboratory in Grenoble, France from 1997 to 2022, following ten years as Assistant in the same institution.

Dr. Masson has been an active contributor to the development and standardization of histocompatibility practices in Europe. She held key leadership roles in the European Federation for Immunogenetics (EFI), including as Inspector, Standards Committee Member, and Commissioner (2011–2021). She also contributed to the World Marrow Donor Association (WMDA) from 2002 to 2012 and holds the ESHI diploma in histocompatibility.

Throughout her career, Dr. Masson has participated in and contributed to numerous international and national scientific conferences and training programs across Europe, and she remains an engaged member of EFI and the French Society for Histocompatibility and Immunogenetics (SFHI).

Is there a place for unrelated donors in stem cell transplants in 2025?

Summary

To perform a successful stem cell transplantation, the recipient and the donor must be matched through the HLA system (Human Leukocyte Antigen). The best donor is an HLA A B C DRB1 DQB1 compatible donor. In case of lack of a compatible family donor, you can look for a family haplo-identical donor or an unrelated donor from various registries.

The evaluation of HLA compatibility is ABCDRB in America (8/8) but ABCDRB1DQB1 and also DPB1 (10/10 or 12/12) regarding European criteria. The success of the graft is quite similar with a family or an unrelated compatible donor. The HLA compatibility has a huge impact on death and GVHD.

Clearly even in 2025 and the increase of grafts with haploidentical donors, the unrelated donor has a place. For example, in 2023 in France more than 50% of the patients were grafted with an unrelated donor.

So how to choose among these donors if you need such a donor from registries? Have a search through WMDA and see the results for your patient.

The first thing is the HLA typing. Look at the most precise and recent HLA typing on all the loci. If you have many donors even if there is no real consensus on the best donor but age, gender, pregnancy, CMV, weight and ABO must be taken in account.

It's also useful to rapidly find the chosen donor. Most of the time the whole process takes around 3 months. The knowledge of the registries is important. Some registries are well known for their huge diversity and it's easy to have a donor. Some registries have many donors but their donors are not available. The habit of recruitment and their rapidity to answer is also useful to know. Of course, if the registry is close to your country, the shipment is easier.

To find an unrelated donor is always a challenge and the criteria are not always the same mostly due to the numbers of donors for the patient and the emergency of the graft

Keywords: Human leukocyte antigen, Compatibility, Registries.

BMWD : Bone Marrow Word Donor
CMV : Cytomegalovirus
GVHD : Graft Versus Host Disease
HLA :Human Leukocyte Antigen

Glen Kennedy

PROFESSOR GLEN KENNEDY M.D

Professor of Medicine at the University of Queensland, Australia

Professor Glen Kennedy is Director of Haematology at the Royal Brisbane & Women's Hospital, and Professor of Medicine at the University of Queensland, Australia. He is a distinguished clinician-scientist with extensive experience in hematopoietic stem cell transplantation, leukemia, lymphoma, and myelodysplastic syndromes.

Prof. Kennedy has played a leading role in the development of national and international clinical trials, serving as a founding member of the ALLG (Australasian Leukaemia & Lymphoma Group) and the Bone Marrow Transplant and Cell Therapies Committee of the ALLG. He is also Deputy Chair of the Blood Diseases Group at the NHMRC Clinical Trials Centre, University of Sydney.

His research has focused on novel therapies for hematologic malignancies and optimizing transplant outcomes. He has authored over 100 peer-reviewed publications and regularly presents at major international conferences. Prof. Kennedy is a passionate advocate for translational research and clinical excellence in hematology.

Donor Selection in Allogeneic stem cell transplantation (SCT): role of unrelated donor registries

Allogeneic stem cell transplantation (SCT) is a curative treatment for many life-threatening blood disorders. Donor selection for SCT traditionally focussed on minimising alloreactivity between immune systems of donor and recipient, with matching HLA-A, B, C and DRB1 (8/8 match) contributing most to long term survival. However, depending on patient age and ethnicity, <50% of recipients had available matched related donors (MRD), promoting the development of unrelated donor registries to expand donor access. More than 40million donors are now listed on registries world-wide, and depending on ethnicity, matched unrelated donors (MUD) are available to 29%-79% of recipients. Over recent years, outcomes for SCT utilizing non-HLA matched donors (alternative donors), has improved dramatically, largely due to use of novel graft versus host disease (GVHD) prophylaxis strategies, especially post-transplant cyclophosphamide (PTC). Alternative donor sources now include mis-matched unrelated donors (MMUD), related haplo-identical donors (haplo) and umbilical cord blood (UCB). Between HLA-matched and alternative donor sources, patients now have a >90% probability of finding a suitable donor match. In this setting, an increased emphasis on non-HLA factors in donor choice is emerging, including donor age and SCT timing. These developments have implications for donor search strategies (sequential versus concurrent), and registry procedures. A summary of current donor selection recommendations and the impact of these pathways in the Australian setting will be discussed.

Plenary Session 2
Evolution of GVHD prophylaxis

Co-chairs: William Hwang, Suradej Hongeng
Hall: BALLROOM
Time: 10:30 – 11:15

01

Allogeneic Blood or Marrow Transplantation with Post-Transplantation Cyclophosphamide
Leo Luznik, Baltimore, Houston

LEO LUZNIK

PROFESSOR LEO LUZNIK, M.D

Leo Luznik

PROFESSOR LEO LUZNIK, M.D

Section Chief of Hematology & Oncology at Baylor College of Medicine

Professor Leo Luznik, M.D. is Section Chief of Hematology & Oncology at Baylor College of Medicine and a senior faculty member at the Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins University School of Medicine. A leading authority in hematopoietic stem cell transplantation, Professor Luznik is internationally recognized for his pioneering work in graft-versus-host disease (GVHD) prevention and post-transplant cyclophosphamide (PTCy) therapy.

With over two decades of translational and clinical research, his contributions have redefined haploidentical transplantation protocols, enabling broader donor availability and improved outcomes for patients with hematologic malignancies. He has authored more than 320 peer-reviewed publications with nearly 16,000 citations, reflecting the global impact of his work.

Professor Luznik completed his medical training at the University of Zagreb, followed by residency and fellowship in the United States. He is board-certified in Hematology and continues to lead NIH-funded research programs aimed at optimizing immune tolerance and anti-leukemic effects post-transplant.

Allogeneic Blood or Marrow Transplantation with Post-Transplantation Cyclophosphamide

The details of the report will be communicated during the conference

Meeting with Experts

Leo Luznik, Baltimore
Corey Cutler, Boston
Filippo Milano, Seattle
Pamela Lee, Hong Kong
Friedrich Stölzel, Kiel
Takahiro Fukuda, Tokyo

Hall: VIP 3 - 4
Time: 11:30 – 12:15

GENERAL COUNCIL MEETING

Co-chairs: Alok Srivastava
Hall: Li Bai
Time: 11:30 – 12:45

ORAL PRESENTATION

Chairman: David Kliman

Hall: BALLROOM 1
Time: 13:00 - 14:30

ORAL PRESENTATION

Chairman: Li Chi Cheng

Hall: BALLROOM 2
Time: 13:00 - 14:30

Multidisciplinary Session 3

Quality Management/FACT-JACIE/Analyzing and reporting outcomes

Chairman: Minako Iida, Aloysius Ho
Hall: BALLROOM 3
Time: 13:00 – 14:30

01

Quality management: FACT-JACIE Standards
Mickey Koh, London

02

Data Management of HCT
Experience and Reflections
Jia Chen, Suzhou

03

Advancing HCT Research: Strategies for Analyzing Outcomes and Promoting Registry Studies
Yoshiko Atsuta, Nagakute

MICKEY KOH

PROFESSOR DR MICKEY BOON CHAI KOH: MBBS (SINGAPORE), FRCP(LONDON), FRCPATH, PHD(LONDON,UK)

JIA CHEN

DR. JIA CHEN, M.D., PH.D

YOSHIKO ATSUTA

YOSHIKO ATSUTA, M.D, PHD

Mickey Koh

PROFESSOR DR MICKEY BOON CHAI KOH: MBBS (SINGAPORE), FRCP(LONDON), FRCPATH, PHD(LONDON,UK)

Professor of Haematology and Clinical Director: Haematology and Oncology Division, St George's University Hospital, London, UK
Infection and Immunity Clinical Academic Group, City Sy Georges, University of London, UK
Honorary Consultant, Advanced Cell Therapy and Research Institute (ACTRIS), Singapore

Professor Mickey Boon Chai Koh is Professor of Haematology at St George's, University of London, and Clinical Director for Renal, Haematology, and Oncology at St George's University Hospital NHS Foundation Trust. With over two decades of experience in hematopoietic stem cell transplantation and cell and gene therapy, he has played a pivotal role in advancing clinical applications and regulatory frameworks globally.

Prof. Koh was formerly Medical Director of Singapore's Academic Cell and Gene Therapy Facility and currently serves on numerous global advisory and expert panels, including the World Health Organization's Expert Advisory Panel for Biological Standardisation and its Task Force on Cell and Gene Therapy Regulation. He is Vice-President of the Worldwide Network for Blood and Marrow Transplantation and a board member of the International Society of Blood Transfusion.

An active clinician-scientist, Prof. Koh has contributed to more than 100 peer-reviewed publications across high-impact journals, with a research focus on clinical haematology, transplant access equity, and innovative stem cell therapies. He continues to champion global collaborations that improve access, safety, and standardization in transplantation and cellular therapies.

Quality management: FACT-JACIE Standards

Quality Management is now fully embedded into haematopoietic stem cell transplant (HSCT)programs and is an essential element to ensure safety and consistency. This systematic approach is critical to good patient outcomes. The development of quality management has also seen the corresponding adoption of various accreditation schemes which includes JACIE, FACT and AABB. These accreditation pathways are often now embedded into transplant programs and in many countries are an essential criteria for licensing and approval by the health ministries. In addition, JACIE and FACT accreditation have become even more relevant as it has been used by commercial CAR-T as a benchmarking tool for commissioning and delivery of novel cell and gene therapies like CAR-T and genetic based therapies for curing haemoglobinopathies.

The development of such accreditation programs has been initiated in USA and Europe and linked to EBMT and ASTCT. As transplant programs are being initiated and developed worldwide, it has become evident that the journey to achieve accreditation will be vastly differing worldwide for centres, regions and countries. This is clearly a critical point that will need addressing urgently for HSCT and cellular therapy to move to the next phase worldwide. This issue has also been identified very early by APBMT who are doing excellent work into a step wise approach to such international accreditation. Other regional transplant organisations like the Latin American Bone Marrow Transplant (LABMT) have also started to look critically into this issue

All of this will be discussed during the presentation

Jia Chen

DR. JIA CHEN, M.D., PH.D

First Affiliated Hospital of Soochow University

Dr. Jia Chen, M.D., Ph.D., is Director Assistant of the Department of Hematology at the First Affiliated Hospital of Soochow University and Deputy Director of the Administrative Office at the National Clinical Research Center for Hematologic Diseases in China. She also serves as Vice Chair of the Youth Group of the Chinese Society of Hematology and Study Coordinator for the Shanghai Office of the European Society for Blood and Marrow Transplantation (EBMT).

Dr. Chen is actively engaged in clinical research and international collaboration in the fields of hematologic malignancies and stem cell transplantation. Her work bridges academic leadership and global cooperative efforts to improve outcomes for patients with hematological diseases.

Data Management of HCT: Experience and Reflections

Robust data management is increasingly critical in the field of hematopoietic cell transplantation (HCT) due to its rapid procedural growth. Influential international data registries include EBMT in Europe and the US-based CIBMTR. In recent decades, Professor Huang's team is leading the data registry in China, that report the outlines of HCT status annually.

In Suzhou, an integrated data registry model merges a clinical database with a biobank. The structure includes the clinical database, the biobank, and a Quality Control Laboratory, covering full-process management of clinical data, sample collection, quality control, and utilization. This system is designed to support a range of functions, including data mining for clinical research and enabling translational research collaborations. The benefits of the data registry include the ability to timely depict clinical status, analyze resource utilization for departmental management, and facilitate patient follow-up.

European HCT data provides valuable benchmarks for follow-up rates and data completeness. In China, The China Portal Hypertension Alliance's (CHESS) Chronic Progressive Liver Disease Digital Management Platform (CDM) serves as an exemplary model for an advanced, multi-center system.

In the field of hematology, the future direction is smart data management. The platforms empower clinicians and researchers with advanced tools, such as intuitive graphical interfaces. Furthermore, they enable data visualization, transforming complex longitudinal data into dynamic graphic surveillance for chronic conditions like cGVHD through patient timelines, treatment-response charts, and multi-dimensional pathway diagrams. The ultimate goal is to move toward a "trinity" of data management, which involves the deep integration of clinical data, biological resources, and omics analysis within a unified framework. This integrated approach is essential for supporting complex real-world studies, enhancing research efficiency, and ultimately improving long-term outcomes for HCT patients.

Yoshiko Atsuta

YOSHIKO ATSUTA, M.D, PHD

Professor, Department of Registry Science for Transplant and Cellular Therapy, Aichi Medical University School of Medicine
Scientific Director, Japanese Data Center for Hematopoietic Cell Transplantation

Dr. Yoshiko Atsuta is a distinguished physician-scientist specializing in hematopoietic stem cell transplantation (HSCT). She earned her M.D. from Nagoya University School of Medicine in 1997 and completed her Ph.D. in Preventive Medicine and Biostatistics from the same institution in 2006. Her early clinical training included a residency and work as a staff physician in hematology at the Japan Red Cross Nagoya First Hospital.

Dr. Atsuta has extensive experience in HSCT outcome registries, statistical analysis, and long-term follow-up of transplant patients. Since 2014, she has served as the Scientific Director of the Japanese Data Center for Hematopoietic Cell Transplantation, playing a pivotal role in data-driven advancements in transplant medicine. In 2021, she was appointed Professor at Aichi Medical University, where she leads research in registry science and cellular therapy.

Her academic interests focus on alternative donor sources for transplantation, late effects post-HSCT, and survival analysis. Dr. Atsuta is an active member of several national societies, including the Japanese Society of Hematology and the Japan Society for Hematopoietic Cell Transplantation.

Advancing HCT Research: Strategies for Analyzing Outcomes and Promoting Registry Studies

Real-world data (RWD) encompasses information regarding patients' experiences, disease courses, and health intervention effects collected outside the framework of randomized controlled trials. RWD originates from various sources, including patient registries, electronic health records, claims data, and patient-reported outcomes. While patient registries are categorized as RWD, they often require data entry, unlike data automatically generated in daily practice. Nevertheless, registries offer a research advantage by allowing for predefined survey items and definitions.

Promoting the utilization of RWD in drug development and research is a growing imperative. The initial step in leveraging RWD involves a thorough search and evaluation of potential data sources to determine if they are "fit-for-purpose". This assessment includes examining the attributes of RWD sources, such as the size and representativeness of the patient population, data collection methods, and the availability of key variables like exposures and outcomes, including potential confounders. Ensuring data quality and comparability is critical to produce valid research findings.

In the field of Hematopoietic Cell Transplantation (HCT), activity has been ongoing since the 1960s, involving the collection of individual patient outcome data following transplantation. These registries have provided essential insights into the current state of HCT practice and have significantly contributed to the advancement of transplantation techniques and patient care. To further enhance the impact, active promotion of registry studies and utilization of HCT registry data are necessary. In promoting registry studies, it is essential to attract HCT physicians with research questions that contribute advancing the field of HCT.

Furthermore, ensuring high data quality and robust statistical analysis is essential. This involves not only maintaining rigorous data management but also unifying the definitions of fundamental variables for statistical analyses. Such standardization enhances the reliability of research findings derived from registry data, ultimately supporting continuous improvement in HCT therapies and patient outcomes.

Session 8
Conditioning Regimen

Chairman: Wasanthi Wickramasinghe, Nguyen Hanh Thu
Hall: BALLROOM 1
Time: 15:00 – 16:30

01

Treosulfan-based conditioning for allogeneic HSCT in children with non-malignant diseases
Ho Joon Im, Seoul

02

Safety and efficacy of VA combined with modified BuCy conditioning regimen followed by allo-HSCT for high-risk or refractory/relapsed acute lymphoblastic leukemia: a prospective, single-center, single-arm clinical trial
Xiaowen Tang, Suzhou

03

Radiation-free alternative donor transplant in PID (online)
Dimana Dimitrova, Bethesda

HO JOON IM

PROFESSOR HO JOON IM, MD & PHD

XIAOWEN TANG

DR. XIAOWEN TANG, M.D. PH.D. CHIEF PHYSICIAN, PROFESSOR

DIMANA DIMITROVA

DIMANA DIMITROVA, MD

Ho Joon Im

PROFESSOR HO JOON IM, MD & PHD

Department of Pediatrics, Asan Medical Center Children's Hospital, University of Ulsan College of Medicine, Seoul, South Korea

Dr. Ho Joon Im is a leading expert in pediatric hematology and oncology, with more than three decades of clinical and academic experience in Korea and abroad. He earned his M.D., master's, and Ph.D. degrees from Hanyang University, Seoul, and completed his clinical training in pediatrics and pediatric hematology/oncology at Hanyang University Hospital. He further honed his expertise as a visiting physician at the Fred Hutchinson Cancer Research Center in Seattle, USA.

Dr. Ho Joon Im currently serves as Professor and Director of the Division of Pediatric Hematology/Oncology at Asan Medical Center Children's Hospital, University of Ulsan College of Medicine. His research focuses on pediatric hematopoietic stem cell transplantation (HSCT), especially haploidentical transplantation using αβ T-cell-depleted grafts, and improving outcomes for children with severe aplastic anemia, myelodysplastic syndrome, and high-risk neuroblastoma.

A prolific researcher, Dr. Im has authored numerous peer-reviewed publications in high-impact journals, contributing significantly to the advancement of ex vivo T-cell depletion techniques and reduced-toxicity conditioning regimens in pediatric transplant settings. He is an active member of multiple professional societies, including the Korean Society of Pediatric Hematology Oncology, Korean Society of Hematology, and the International Society of Pediatric Oncology.

Dr. Ho Joon Im work continues to shape the future of pediatric hematology-oncology through evidence-based clinical innovation, multicenter collaboration, and mentorship of the next gene

Treosulfan-based conditioning for allogeneic HSCT in children with non-malignant diseases

Allogeneic hematopoietic stem cell transplantation (HSCT) has been widely used as a curative therapy for pediatric patients with non-malignant disease. Conditioning regimens play an important role in the success of HCT for pediatric patients with non-malignant diseases and have improved dramatically in recent decades. The initial HSCT approach using myeloablative conditioning (MAC) significantly improved the outcomes of patients with non-malignant disease but was associated with considerable transplant-related mortality (TRM). A subsequent strategy using reduced-intensity conditioning (RIC) remarkably reduced the incidence of TRM. However, the high level of mixed chimerism associated with RIC has prompted the search for improved conditioning regimens. Treosulfan, which is a busulfan analogue, is a prodrug and a water-soluble bifunctional alkylating agent which has been used as treatment for various cancers. Recently, treosulfan replaced busulfan as a component of a reduced toxicity conditioning regimen for HSCT. Preclinical studies demonstrated that treosulfan treatment produced a rapid and sustained myelosuppression and that this agent exhibits immunosuppressive characteristics, which contribute to stable engraftment after HSCT. In contrast to busulfan, treosulfan is also associated with fewer extramedullary toxicities, including in the liver. Recently, treosulfan has replaced busulfan as a component of a reduced toxicity conditioning (RTC) regimen. Both its myeloablative and immunosuppressive properties, as well as a favorable toxicity profile, make treosulfan a potential candidate for use as part of conditioning regimen prior to HSCT. Indeed, treosulfan-based conditioning regimens are being increasingly used in pediatric patients with various non-malignant diseases.

In this presentation, I will review the recent progress in HSCT using treosulfan-based conditioning regimen in pediatric patients with non-malignant diseases. I will also introduce the clinical experience with this approach at our center.

Xiaowen Tang

DR. XIAOWEN TANG, M.D. PH.D. CHIEF PHYSICIAN, PROFESSOR

Vice Director of Department of Hematology, The First Affiliated Hospital of SooChow University, Jiangsu Institute of Hematology, National Clinical Research Center for Hematologic Diseases, Institute of Blood and Marrow Transplantation

Dr. Xiaowen Tang is a leading expert in hematology and hematopoietic stem cell transplantation (HSCT) in China. She currently serves as Chief Physician and Professor, and holds the position of Vice Director at the Department of Hematology, The First Affiliated Hospital of Soochow University. She plays a central role in several national and regional professional organizations, including the Chinese Medical Doctor Association, the Chinese Medical Association, and various Jiangsu-based hematology and immunotherapy committees.

Dr. Tang's clinical and research focus lies in the treatment of refractory and relapsed acute leukemia, as well as the development of strategies to prevent and manage post-transplant relapse following allogeneic HSCT. She has made substantial contributions to the field of adoptive cellular immunotherapy, particularly with CAR-T cells and donor lymphocyte infusions (DLI), through the establishment of integrated clinical and experimental platforms.

With over 130 publications in high-impact hematology journals such as JCO, JHO, AJH, and BCJ, Dr. Tang is a prolific contributor to the scientific community. As a principal investigator, she has led numerous funded research projects, including several supported by the National Natural Science Foundation of China, and holds two national invention patents. Her achievements have been recognized with prestigious honors, including the National Scientific and Technological Progress Second Prize.

Safety and Efficacy of VA Combined with Modified BuCy Conditioning Regimen Followed By Allo-HSCT for High-Risk or Refractory/Relapsed Acute Lymphoblastic Leukemia : A Prospective, Single-Center, Single-Arm Clinical Trial

Xiaoqian Chen, Wei Cui, Qingya Cui, Zheng Li, Sifan Chen, Mengyun Li, Xuekai Li, Juan Chen, Yan Yu, Xin Zhang, Depei Wu, MD PhD, Xiaowen Tang

National Clinical Research Center for Hematologic Diseases, Jiangsu Institute of Hematology, The First Afliated Hospital of Soochow University, Suzhou, China

Background: Allogeneic hematopoietic stem cell transplantation (allo-HSCT) is the only curative treatment option for high risk or refractory/relapsed (r/r) acute lymphoblastic leukemia (ALL). However, relapse remains a leading cause of death post allo-HSCT, with a cumulative incidence of relapse (CIR) of approximately 30%-50%. Therefore, prevention of relapse is of great importance to improve the outcome of allo-HSCT in high-risk ALL patients. Intensive myeloablative conditioning is a primary therapeutic option that can maximize the reduction of the residual leukemia burden in order to reduce disease recurrence post transplantation. Venetoclax combined with azacytidine (the VA regimen) has demonstrated synergistic anti-tumor activity against several hematological malignancies, particularly newly diagnosed and high-risk ALL (data unpublished). Furthermore, the VA regimen can disrupt energy metabolism and eliminate leukemia stem cells. Therefore, we aim to evaluate the safety and efficacy of the VA regimen combined with modified BuCy for high-risk or r/r ALL patients undergoing allo-HSCT.

Method: From Dec 2021 to Apr 2024, 20 patients diagnosed with high-risk or r/r ALL were enrolled. All patients received 7-day courses of venetoclax (200mg/d on days -17 to -11) and 7-day courses of azacytidine (75mg/m^2/d on days -17 to -11) combined with mBuCy conditioning regimen consisting of Me-CCNU 250 mg/m^2/d on day -10, cytarabine 2g/m^2 every 12h on days -9 to -8, busulfan 0.8 mg/kg every 6 h on days -7 to -5, and cyclophosphamide 1.8 g/m^2/d on days -4 to -3. For matched sibling and unrelated donors, cytarabine was given at a dose of 2g/m^2/d on day -9. Rabbit antithymocyte globulin was given at 2.5mg/kg/d on days -5 to -2 except for matched sibling donors.

Results: As of April 2024, 20 patients, with a median age of 30.5 years (ranging from 12 to 56 years),were enrolled in this study. High risk cytogenetic or molecular factors were detected in 100% patients, such as KMT2A rearrangement, Ph-like ALL, hypodiploidy and testicular leukemia. ALL patients achieved morphological complete remission prior to transplantation, with 19 (95%) patients maintaining minimal residual disease (MRD)-negative remission. The majority (85%) received transplantation from haploidentical donors. Hematopoietic recovery was achieved for all patients, with a median time to absolute neutrophil counts (ANC) engraftment of 12 days (range: 9-13 days) and platelet (PLT) engraftment of 17 days (range: 8-30 days). During a median follow-up period of 14.5 months (range: 2.6-31.1 months), 1 patient experienced relapse at 9 months after transplantation, while another patient died from severe sepsis on day 222 post-transplantation. Overall survival (OS) at 1 year was 94.1% (95% CI, 83.6-100%). Leukemia-free survival (LFS) at 1 year was 87.8% (95% CI, 73.4-100%). The CIR at 1 year was 6.7% (95% CI, 6.7-61.6%). The non-relapse mortality (NRM) at 1 year was 5.9% (95% CI, 0-17.4%). Grade I-II acute graft-versus-host disease (aGVHD) occurred in 30% of patients, with no case of grade III-IV aGVHD. Mild chronic graft-versus-host disease (cGVHD) was observed in 3 patients. The most common non-hematologic adverse events (AEs) were grade I-II gastrointestinal issues, with diarrhea affecting 45% and nausea affecting 30% of patients. No higher-grade AEs or hepatic veno-occlusive disease (VOD) were noted. By the end of the follow-up period, the incidences of cytomegalovirus (CMV) and Epstein-Barr virus (EBV) activation were 25% (5 out of 20) and 40% (8 out of 20), respectively.

Conclusion: Our study suggests that the VA regimen combined with modied BuCy shows good tolerability, significantly decreases the relapse rate, and prolongs long-term survival in high-risk or refractory/relapsed ALL patients.

Dimana Dimitrova

DIMANA DIMITROVA, MD

Chief Medical Officer, Center for Immuno-oncology, National Cancer Institute, National Institutes of Health, Bethesda, MD

Dr. Dimana Dimitrova is a board-certified physician in both Pediatrics and Allergy/Immunology, currently serving as Chief Medical Officer within the United States Public Health Service Commissioned Corps at the National Cancer Institute (NCI), National Institutes of Health (NIH). With over a decade of clinical and translational experience in hematopoietic stem cell transplantation (HSCT), she has established herself as a leader in the care and research of patients with inborn errors of immunity, immune dysregulation, and hematologic malignancies.

Dr. Dimitrova has been the Principal Investigator of multiple NIH clinical trials, including novel reduced-intensity transplantation protocols for patients with primary immunodeficiencies and relapsed/refractory peripheral T-cell lymphomas. She is actively involved in protocol design, patient care, data analysis, and mentoring of trainees. Her work integrates immunology, oncology, and infectious disease management within a cutting-edge transplant platform.

In addition to her clinical responsibilities, Dr. Dimitrova contributes extensively to peer-reviewed literature, with over 40 publications in leading journals such as Blood Advances, JACI, Science Immunology, and The New England Journal of Medicine. She has received numerous awards for her contributions to public health and education, including the USPHS Commendation Medal and NIH's "Best Clinical Educator" recognition.

Her leadership extends to multiple national and international committees, including the NIH Institutional Review Board, the NIH Transplantation and Cellular Therapy Consortium, and the Center for International Blood & Marrow Transplant Research (CIBMTR). She is an invited speaker at global conferences and serves as a peer reviewer for top scientific journals in immunology and transplantation.

Dr. Dimitrova is fluent in English, Spanish, and French, and brings a multicultural, multidisciplinary perspective to patient-centered care and clinical innovation in transplantation medicine.

Radiation-free alternative donor transplant in PID (online)

The details of the report will be communicated during the conference

Session 9
Haplo-HSCT

Chairman: Sharat Damodar, Phu Chi Dung
Hall: BALLROOM 2
Time: 15:00 – 16:30

01

Double Down: The U.S. Haplo-Cord Experience in Allogeneic Transplantation
Filippo Milano, Seattle

02

Haploidentical - HSCT for malignant hematology diseases: Experience at BTH
Huynh Van Man, Ho Chi Minh

03

Less is More: The Evolution of PTCy Dose for Safer Allogeneic Transplantation (online)
Junichi Sugita, Sapporo

FILIPPO MILANO

FILIPPO MILANO, MD, PHD

HUYNH VAN MAN

DR. HUYNH VAN MAN MD, PH.D

JUNICHI SUGITA

JUNICHI SUGITA, M.D., PH.D

Filippo Milano

FILIPPO MILANO, MD, PHD

Fred Hutchinson Cancer Center: Associate Professor, Director Cord Blood Transplantation Program, Scientific Director Cellular Therapy Lab

Dr. Filippo Milano is an internationally recognized hematologist and physician-scientist specializing in hematopoietic stem cell transplantation and cellular immunotherapy. He received his M.D. and Ph.D. in Hematology Sciences from the University “La Sapienza” of Rome, Italy, graduating with highest honors. After completing postdoctoral and clinical fellowships at the University of Washington and Fred Hutchinson Cancer Center, he rapidly advanced to his current leadership roles.

Dr. Milano has pioneered research in cord blood transplantation, with a particular focus on improving transplant outcomes for patients with high-risk hematologic malignancies. He has served as Principal Investigator on numerous clinical trials including early-phase studies of ex vivo expanded progenitor cells, treosulfan-based conditioning regimens, and CRISPR-edited CAR-T therapies. His clinical innovations have significantly expanded transplant access for ethnically diverse and high-risk patient populations.

He has authored over 150 peer-reviewed publications in top-tier journals including NEJM, Blood, and JCO, and has received multiple awards for excellence in research, mentorship, and education. He actively serves on scientific committees of ASH, ASTCT, CIBMTR, and HRSA, contributing to policy, guidelines, and the development of future therapies. A passionate advocate for diversity in science and medicine, Dr. Milano leads mentorship programs for underrepresented students and promotes equity in donor access.

Double Down: The U.S. Haplo-Cord Experience in Allogeneic Transplantation

Treosulfan has emerged as a versatile and well-tolerated alkylating agent for conditioning in allogeneic hematopoietic stem cell transplantation (alloHSCT), with increasing adoption across donor types and patient populations. This presentation focuses on the use of high-intensity Treosulfan, particularly at the 14 g/m² dose level, emphasizing its clinical efficacy, safety, and flexibility across stem cell sources, including matched related/unrelated donors, cord blood, and haploidentical platforms.

The recent FDA approval of Treosulfan in the USA expands its accessibility and underscores the need to further evaluate its use in novel conditioning platforms. This presentation will explore dosing strategies, including the rationale for intensifying to 14 g/m²/day, and compare clinical outcomes across transplant modalities. Attention will also be given to practical considerations such as drug metabolism, interaction profiles, and implications for immunosuppression.

Importantly, the addition of low-dose TBI to a Treosulfan-based backbone has been a critical component of the Seattle experience. This combination has demonstrated improved disease control, by enhancing the immunosuppressive depth of the regimen without significantly increasing toxicity. In cord blood transplantation, where immune-mediated rejection and delayed engraftment are of concern, Treosulfan + Flu + TBI has provided a platform capable of ensuring sustained donor chimerism with acceptable transplant-related morbidity. These findings highlight the potential synergy between Treosulfan and radiation in optimizing transplant outcomes.

By offering a reduced-toxicity yet myeloablative option, Treosulfan may redefine the conditioning landscape—particularly for patients previously deemed ineligible for high-intensity regimens. Its broad applicability and favorable therapeutic profile support its integration into both standard and investigational transplant protocols in the U.S. and globally.

Huynh Van Man

DR. HUYNH VAN MAN MD, PH.D

Head of Stem Cell Transplantation at BTH (Blood Transfusion Hematology), Vietnam.

Dr. Huynh Van Man serves as Head of Stem Cell Transplantation at BTH (Blood Transfusion Hematology), Vietnam.

He graduated from University of Medical and Pharmacy at Ho Chi Minh City completed a 3-year residency in hematology at BTH. He graduated Master Course, the University of Tokyo, Japan in 2007 and Doctor Course, Ha Noi Medical University in 2015.

Professionally, Dr. Huynh Van Man specializes in the treatment of diseases such as aplastic anemia, leukemia, myeloma, and lymphoma. He has a particular interest in autologous and allogeneic hematopoietic stem cell transplantation for both adult and pediatric patients.
During his career to date at BTH, he has performed more than 700 hematopoietic stem cell transplantation cases. He also has authored over 50 original research papers, many of which were published in the Journal of General Medicine of Vietnam as well as international medical journals.

Dr. Huynh Van Man is a respected member of both the Vietnamese Hematology and Blood Transfusion Association.

Haploidentical Transplant for Hematological Malignant Diseases: Experience at BTH Hospital

Background: Hematopoietic stem cell transplantation (HSCT) is a curative option for various hematological malignancies and disorders. Haploidentical HSCT with post-transplant cyclophosphamide (PT-Cy) has emerged as a viable alternative for patients lacking a matched sibling or unrelated donor. This study aimed to retrospectively evaluate the outcomes of haploidentical HSCT with PT-Cy at BTH Hospital.

Methods: We retrospectively analyzed data from the patients who underwent haploidentical HSCT with PT-Cy at BTH Hospital between February 2016 and April 2025. Outcomes, including overall survival (OS), progression-free survival (PFS), graft-versus-host-disease-free, relapse-free survival (GRFS), and cumulative incidences of acute and chronic graft-versus-host disease (GVHD), relapse, and non-relapse mortality (NRM) were analyzed.

Results: There were 69 patients who underwent haploidentical HSCT with PT-Cy at BTH Hospital between February 2016 and April 2025. The study population included patients with AML (n=47), MDS (n=4), ALL (n=11), MPNs (n=4), MDS/MPNs (n=2), and HLH (n=1). Conditioning regimens were myeloablative (n=35) or reduced-intensity (n=34). The median follow-up duration was 40 months. At 3 years, the estimated rates of OS, PFS, and GRFS were 51.4 ± 6.7%, 41.1 ± 6.5%, and 41.3 ± 6.5%, respectively. The cumulative incidence of acute GVHD at 100 days was 27.5%, while the cumulative incidence of chronic GVHD at 1 year was 23.9%. Cumulative incidences of relapse and NRM at 1 year were 21.3% and 20.3%, and at 3 years were 32.3% and 21.8%, respectively. Univariate analysis identified two factors adversely affecting OS: female donor to male recipient (HR 2.74, p=0.02) and donor age ≥ 37 years (HR 2.13, p=0.037). Female donor to male recipient was also a significant adverse factor for PFS in univariate analysis (HR 2.32, p=0.046). In multivariate analysis, donor age ≥ 37 years was an independent adverse risk factor for both OS (HR 3.27, p=0.004) and PFS (HR 2.44, p=0.018). The leading causes of death were relapse (54%) and post-transplant infection (30%). These outcomes are comparable to findings from other international studies.

Conclusion: Haploidentical HSCT with PT-Cy is a feasible and effective treatment for a diverse group of patients with hematological diseases. Donor age and donor-recipient sex mismatch are important factors influencing outcomes. Future studies are needed to further optimize donor selection and patient management.

Junichi Sugita

JUNICHI SUGITA, M.D., PH.D

Director, Department of Hematology, Sapporo Hokuyu Hospital

Dr. Junichi Sugita is a board-certified hematologist and laboratory physician with over two decades of clinical and academic experience in hematology and transfusion medicine. He currently serves as Director of the Department of Hematology at Sapporo Hokuyu Hospital. Dr. Sugita obtained his M.D. and Ph.D. from Hokkaido University, where he also held several academic and clinical appointments, including Lecturer and Assistant Professor in Hematology and Laboratory Medicine.

His professional expertise spans a wide range of hematologic disciplines, with particular focus on hematopoietic and immune cell therapy, transfusion medicine, and laboratory diagnostics. He holds multiple board certifications from major Japanese medical societies, including the Japanese Society of Hematology, the Japan Society for Hematopoietic and Immune Cell Therapy, and the Japan Society of Transfusion Medicine and Cell Therapy. He is also a certified manager for cellular therapy and laboratory medicine.

Dr. Sugita is an active member of both national and international professional societies, including the American Society of Hematology (ASH) and the American Society of Transplantation (AST). His clinical leadership, commitment to education, and contributions to cellular therapy place him among the respected figures in the field of hematologic medicine in Japan.

Less is More: The Evolution of PTCy Dose for Safer Allogeneic Transplantation

Post-transplant cyclophosphamide (PTCy) has revolutionized graft-versus-host disease (GVHD) prophylaxis, transforming the landscape of allogeneic hematopoietic stem cell transplantation (HCT). Initially developed for haploidentical HCT, its use has rapidly expanded to become a standard of care in transplants from matched related (MRD), matched unrelated (MUD), and mismatched unrelated donors (MMUD). Despite its broad success, the standard 100 mg/kg dose is associated with significant toxicities, particularly myocardial damage. This universal concern has made dose optimization a critical goal to improve the safety of this platform.

In Japan, we have systematically addressed this issue. Our initial prospective phase II studies in the haploidentical setting (Sugita et al., Bone Marrow Transplant 2021) established the safety and feasibility of a reduced 80 mg/kg PTCy dose. Subsequently, a large-scale Japanese registry analysis (Fuji et al., British Journal of Haematology 2024) provided definitive evidence. This analysis showed that the 80 mg/kg dose offered comparable efficacy to the 100 mg/kg standard. Notably, deaths from cardiac complications within 30 days of transplant occurred in 7 of the 425 patients in the standard-dose group versus none in the 425 patients in the reduced-dose group, highlighting a significantly improved safety profile.

These findings, primarily derived from haplo-HCT, provide a powerful rationale for dose de-escalation across all PTCy-based platforms, spurring a global initiative to validate this less-toxic approach in prospective trials. This presentation will review the compelling evidence from Japan that supports this paradigm shift, and discuss the global effort to establish a new, less toxic standard of care for GVHD prophylaxis in allogeneic HCT.

Session 10
Complication - GVHD

Chairman: Gin Gin Gan, Clinton Lewis
Hall: BALLROOM 3
Time: 15:00 – 16:30

01

Low dose PT-Cy as GVHD prophylaxis
Mikhail Drokov, Tashkent

02

Recent Advances in GvHD Research: From Bench to Bed
Yang Xu, Suzhou

03

GVHD Update EBMT Guidelines (online)
Olaf Penack, Berlin

MIKHAIL DROKOV

MIKHAIL DROKOV, MD, PH.D

YANG XU

YANG XU, MD, PHD

OLAF PENACK

OLAF PENACK, M.D., PROFESSOR OF MEDICINE

Mikhail Drokov

MIKHAIL DROKOV, MD, PH.D

Head of department in National Medical Research Center For Hematology, Moscow, Russia /Chief consultant in Republican Specialized Scientific and Practical Medical Center of Hematology, Tashkent, Uzbekistan

Dr. Mikhail Drokov is a distinguished hematologist and physician-scientist with extensive expertise in hematopoietic stem cell transplantation (HSCT), immunotherapy, and clinical trial design. He currently holds dual leadership roles as Head of the Clinical Trials Department and Head of the Department of Chemotherapy of Hemoblastosis, Hematopoietic Depression, and Bone Marrow Transplantation at the National Medical Research Center for Hematology in Moscow, Russia. Additionally, he serves as Chief Consultant at the Republican Specialized Scientific and Practical Medical Center of Hematology in Tashkent, Uzbekistan.

With more than 16 years of specialized clinical experience, Dr. Drokov has been at the forefront of developing advanced transplant strategies, particularly in managing post-transplant complications and optimizing outcomes through personalized approaches. His scientific work focuses on transplant immunology, graft-versus-host disease (GVHD), and the application of immune biomarkers—such as granzyme B-expressing regulatory T cells—as predictors of relapse and GVHD.

Dr. Drokov has played key roles in multiple international Phase II and III clinical trials as both principal investigator and co-investigator. His research has resulted in over 390 scientific publications, and he has contributed to several authoritative transplant textbooks, including Transplantation of Allogeneic Hematopoietic Stem Cells: A Practical Guide (2024). His collaboration with global experts through the European Society for Blood and Marrow Transplantation (EBMT) and other platforms has made significant contributions to harmonizing clinical standards and diagnostic practices in transplantation.

He continues to lead the integration of translational research into clinical protocols, bridging bench-to-bedside innovation, and promoting international cooperation in hematology and transplant medicine.

Low dose PT-Cy as GVHD prophylaxis

Many studies have been conducted on the effectiveness of high-dose post-transplantation cyclophosphamide (PTCy) in preventing graft-versus-host disease (GVHD). However, few studies have focused on low-dose post transplant cyclophosphamide in related, unrelated, or haploidentical settings. In this presentation, we will report our data, starting with immunology and clinical implementation in limited resource settings, as well as preliminary results from a prospective randomized multicenter study. We will discuss immunoblation efficacy for various doses of PTcy compared to other GVHD prevention regimens. Next, we present preliminary clinical data showing that different doses yield similar results, followed by discussion on how to implement this approach in resource-limited settings. Finally, the results of a prospective randomized multi-center study will confirm no difference in aGVHD rates.

Yang Xu

YANG XU, MD, PHD

The vice-president of the First Affiliated Hospital of Soochow University, China

Professor Yang Xu is a leading figure in hematology in China, currently serving as Professor, Chief Physician, and Doctoral Supervisor at the First Affiliated Hospital of Soochow University. He is the recipient of the National Outstanding Young Physician Award and serves as Chief Scientist of China's National Key R&D Program. He also holds multiple leadership positions, including Vice President of the First Affiliated Hospital of Soochow University, Deputy Director of the National Clinical Research Center for Hematologic Diseases, and Deputy Director of the Institute of Hematopoietic Stem Cell Transplantation at Soochow University.

Prof. Xu is the technical lead of both the Jiangsu Provincial Key Laboratory of Hematology and the Jiangsu Talent Alliance Project. He currently leads one major National Key R&D Program and serves as Principal Investigator for four NSFC (National Natural Science Foundation of China) projects and another National Key R&D initiative.

With a strong academic background, Prof. Xu has authored 65 SCI-indexed publications as first or corresponding author in leading international journals, including Blood, Leukemia, and Nature Communications. His research has contributed to the WHO and European leukemia diagnostic and therapeutic guidelines, and he has played a significant role in drafting several national Chinese guidelines for hematologic diseases.

His contributions have been recognized with numerous awards, including the National Science and Technology Progress Award (Second Prize), and multiple First and Second Prizes at the provincial and ministerial levels.

Recent Advances in GvHD Research: From Bench to Bed

Allogeneic haematopoietic stem-cell transplantation (allo-HSCT) can cure many haematological malignancies, yet acute graft-versus-host disease (aGvHD) remains the leading cause of non-relapse mortality. Conditioning-related intestinal injury and microbiota disruption further complicate its management and limit the predictive value of pre-clinical models.

To uncover druggable pathways for aGvHD prevention, we integrated transcriptomic profiling with functional screening of murine and patient-derived allogeneic T cells. We identified the de-ubiquitinase OTUD1, which stabilises the Notch2 intracellular domain (NICD) by de-ubiquitylating K1770, thereby amplifying $CD4^+$ T-cell activation and accelerating aGvHD. In silico drug discovery revealed that the SGLT2 inhibitor dapagliflozin selectively targets the OTUD1–NICD axis, restraining T-cell activation and effector function and prolonging survival. These findings have led to a phase II prophylactic trial of dapagliflozin (NCT06626737) and a phase III trial of the DPP-4 inhibitor sitagliptin (NCT05149365) in the allo-HSCT setting.

Concurrently, multi-omics analyses showed that type VI secretion system (T6SS)–mediated interbacterial antagonism reshapes gut microbiota composition and the intestinal metabolome —most notably the bile-acid pathway. This ecological re-engineering attenuates mucosal inflammation, preserves epithelial-barrier integrity, and mitigates aGvHD. These insights prompted a randomised trial of autologous faecal microbiota transplantation (FMT) for severe steroid-refractory intestinal aGvHD (NCT04745221), which achieved high response rates while maintaining graft-versus-leukemia activity.

Together, the OTUD1/Notch and T6SS–bile-acid axes represent complementary checkpoints in allo-immunity and host–microbe crosstalk. Their simultaneous modulation provides a rational, mechanism-driven strategy to prevent or treat aGvHD. This work exemplifies an integrated bench-to-bedside pipeline that translates molecular discoveries into first-in-human interventions, accelerating progress toward safer and more effective allo-HSCT.

Olaf Penack

OLAF PENACK, M.D., PROFESSOR OF MEDICINE

Clinical Director, Cellular Therapy Program
Department of Hematology, Oncology and Cancer Immunology
Charité – Universitätsmedizin Berlin, Germany

Professor Olaf Penack is a leading expert in hematology and cellular therapy, currently serving as the Clinical Director of the Cellular Therapy Program and Attending Physician at the Department of Hematology, Oncology, and Cancer Immunology, Charité – Universitätsmedizin Berlin. He holds a Heisenberg W3 Professorship awarded by the German Research Foundation (DFG), reflecting his outstanding contributions to academic medicine.

Dr. Penack received his M.D. from the Georg-August University of Göttingen, followed by a doctoral thesis in physiology. He conducted postdoctoral research in experimental stem cell transplantation at Charité and the Memorial Sloan-Kettering Cancer Center in New York, where he specialized in immunotherapy and transplant immunology. He obtained his Venia Legendi (Habilitation) in Internal Medicine in 2011.

His clinical and scientific work focuses on allogeneic hematopoietic stem cell transplantation (HSCT), with key interests in endothelial biology, graft-versus-host disease (GVHD) prevention, immune reconstitution, and cellular therapy. He has led pivotal studies comparing post-transplant cyclophosphamide (PTCy) and anti-thymocyte globulin (ATG) in GVHD prophylaxis, as well as the development of biomarkers such as the Endothelial Activation and Stress Index (EASIX).

Dr. Penack serves as Chair of the GVHD Group within the European Society for Blood and Marrow Transplantation (EBMT) and is actively involved in international guideline development. He is also a frequent peer reviewer for major journals including Blood, Haematologica, Leukemia, and Journal of Clinical Oncology. His academic excellence has been recognized with multiple awards, including the Chugai Science Award and Best Abstract Award from the American Society for Blood and Marrow Transplantation.

GVHD
Update EBMT Guidelines

Graft-versus-host disease (GVHD) is a major factor contributing to mortality and morbidity after allogeneic haematopoietic stem-cell transplantation (HSCT). In the last 3 years, there has been regulatory approval of new drugs and considerable change in clinical approaches to prophylaxis and management of GVHD. To standardise treatment approaches, the European Society for Blood and Marrow Transplantation (EBMT) has updated its clinical practice recommendations. We formed a panel of one methodologist and 22 experts in the field of GVHD management. The
selection was made on the basis of their role in GVHD management in Europe and their contributions to the field, such as publications, presentations at conferences, and other research. We applied the GRADE process to ten PICO (patient, intervention, comparator, and outcome) questions: evidence was searched for by the panel and graded for each crucial outcome. In two consensus meetings, we discussed the evidence and voted on the wording and strengths of recommendations. Key updates to the recommendations include: (1) primary use of ruxolitinib in steroid-refractory acute GVHD and steroid-refractory chronic GVHD as the new standard of care, (2) use of rabbit anti-T-cell (thymocyte) globulin or post-transplantation cyclophosphamide as standard GVHD prophylaxis in peripheral blood stem-cell transplantations from unrelated donors, and (3) the addition of belumosudil to the available treatment options for steroid-refractory chronic GVHD. The EBMT proposes to use these recommendations as the basis for routine management of GVHD during allogenic HSCT.

THE 30 ANNUAL CONGRESS OF ASIA-PACIFIC BLOOD AND MARROW TRANSPLANTATION GROUP

September 20th, 2025

CURRICULUM VITAE AND ABSTRACT

Session 11
Lymphoma/Myeloma

Chairman: Lallindra Gooneratne, Trinh Thuy Duong
Hall: BALLROOM 1
Time: 08:30 – 10:00

01

Outcomes of Autologous Stem Cell Transplantation in Japanese Patients Aged ≥65 Years with Relapsed or Refractory DLBCL: A Nationwide Analysis in the Era of CAR-T Therapy
Satoshi Yamasaki, Fukuoka

02

Advances in the management of multiple myeloma
Adam Bryant, Sydney

03

Revisiting the standard 200 mg/m^2 dose of melphalan for autologous transplant in myeloma in the era of MRD
Sumeet Mirgh, Mumbai

SATOSHI YAMASAKI

SATOSHI YAMASAKI, M.D., PH.D.; CHIEF HEMATOLOGIST

ADAM BRYANT

CURRICULUM VITAE – DR ADAM JACOB BRYANT, MBBS, FRACP, FRCPA, PHD

SUMEET MIRGH

DR SUMEET MIRGH, ASSOCIATE PROFESSOR

Satoshi Yamasaki

SATOSHI YAMASAKI, M.D., PH.D.; CHIEF HEMATOLOGIST

Chief Hematologist, Department of Hematology, St. Mary's Hospital, Kurume, Fukuoka, Japan

Dr. Satoshi Yamasaki is a senior hematologist with over 25 years of clinical and research experience in hematologic malignancies, stem cell transplantation, and geriatric hematology. He is currently the Chief Hematologist at St. Mary's Hospital in Kurume, Fukuoka, Japan, and previously served as Associate Professor at Kyushu University and as a postdoctoral researcher at the University of Minnesota, USA.

Dr. Yamasaki earned his M.D. and Ph.D. from Kyushu University and holds multiple board certifications, including hematology, internal medicine, transfusion medicine, and hematopoietic cell transplantation. He has led several national studies focused on elderly patient care, real-world evidence, and innovative transplantation strategies.

With over 100 peer-reviewed publications, Dr. Yamasaki has contributed extensively to international journals such as Annals of Hematology, Bone Marrow Transplantation, Blood Advances, and Scientific Reports. He has been a Principal Investigator in numerous multicenter trials and is actively involved in Japan's national hematology registries (JSHCT, TRUMP).

His clinical and academic work emphasizes evidence-based care for older adults, the optimization of transplant protocols, and the integration of supportive therapies such as hot spring therapy to improve quality of life. Dr. Yamasaki also plays an active role in medical education, mentoring residents and fellows in hematology and transplantation medicine.

Outcomes of Autologous Stem Cell Transplantation in Japanese Patients Aged ≥65 Years with Relapsed or Refractory DLBCL: A Nationwide Analysis in the Era of CAR-T Therapy

Background: The rising incidence of relapsed or refractory diffuse large B-cell lymphoma (R/R DLBCL) among older populations poses a critical challenge in Japan's super-aging society. While high-dose chemotherapy followed by autologous stem cell transplantation (ASCT) has long been the standard of care for chemosensitive R/R DLBCL, real-world evidence in patients aged ≥65 years remains limited, especially with the recent emergence of CAR-T cell therapy as an alternative option.

Objective: To evaluate clinical outcomes and identify prognostic factors for ASCT in Japanese patients aged ≥65 years with R/R DLBCL, and to clarify the role of ASCT alongside novel cellular therapies.

Methods: We retrospectively analyzed data from the nationwide TRUMP registry, enrolling 451 patients aged ≥65 years who underwent first ASCT for R/R DLBCL (CR2 or PR1) between 2011 and 2022. Outcomes were assessed up to the introduction of alternative therapies (allo-SCT/CAR-T). Multivariate analyses evaluated predictors for non-relapse mortality (NRM), relapse, progression-free survival (PFS), and overall survival (OS).

Results: The median age was 67 years (range, 65–80). Three-year OS was significantly higher in patients with >24 months from diagnosis to ASCT (73.4%) compared to ≤24 months (58.6%, $p<0.01$), and in those with ECOG performance status (PS) 0 at ASCT (69.4% vs. 60.6%, $p=0.02$). HCT-CI >0 and male sex were independent predictors for NRM. The uptake of ASCT plateaued after 2018, coinciding with the approval of CAR-T cell therapy in Japan. Most relapses occurred within 24 months post-ASCT.

Conclusion: ASCT remains an effective and safe option for highly selected older patients with chemo-sensitive, late-relapsed DLBCL, particularly those with good PS and minimal comorbidities. Individualized, evidence-based treatment selection is essential, considering emerging alternatives such as CAR-T therapy. These findings inform optimal management strategies for older adults with R/R DLBCL in Asia's aging society.

Keywords: Autologous transplantation, DLBCL, older, CAR-T, real-world, Japan

Adam Bryant

CURRICULUM VITAE – DR ADAM JACOB BRYANT, MBBS, FRACP, FRCPA, PHD

Senior Staff Specialist, Haematology and Bone Marrow Transplantation
Director, Haematology Clinical Trials Unit, Liverpool Hospital, Australia
President-Elect (2025), Haematology Society of Australia and New Zealand

Dr Adam Bryant is a highly respected haematologist and clinical researcher, currently serving as Senior Staff Specialist in Haematology and Bone Marrow Transplantation at Liverpool Hospital, Sydney. He is also the Director of the South-Western Sydney Haematology Clinical Trials Unit and President-Elect of the Haematology Society of Australia and New Zealand (HSANZ).

Dr Bryant holds dual fellowships from the Royal Australasian College of Physicians and the Royal College of Pathologists of Australasia. He completed his PhD at the University of New South Wales with research focusing on the role of microRNAs in acute myeloid leukaemia, supported by prestigious NHMRC and Arrow Foundation scholarships.

With over a decade of leadership in clinical trials, Dr Bryant oversees a multidisciplinary trials team and serves as Principal Investigator on numerous national and international studies in myeloma, acute leukaemia, and cellular therapies. His key investigator roles include Phase I–III trials such as DREAMM, MajesTEC-7, VIBER-M, Magnetism-6, and GPRC5D-targeted CAR T cell studies. He also contributes to safety and data monitoring committees for cooperative groups like COGNO and ANZHIT.

Beyond his research, Dr Bryant is an editorial contributor for The Limbic and Research Review, and has served as an examiner and lecturer with the University of New South Wales. His leadership extends to national advisory roles, including chairing the NSW Hematopoietic Cell Transplantation Advisory Group and contributing to the EviQ cancer guidelines.

Dr Bryant's dedication to translational research and clinical innovation has made a significant impact on haematology practice in Australia. His ORCID profile and UNSW research page detail a comprehensive list of his publications and public engagements.

Advances in the Management of Multiple Myeloma

The therapeutic landscape of multiple myeloma continues to evolve rapidly, driven by innovations in frontline regimens and immune-based therapies. This presentation offers a contemporary overview of key advances as of 2025, with a focus on clinical relevance across diverse healthcare settings. In transplant-eligible patients, the incorporation of daratumumab into triplet induction (D-VRd) has established a new standard of care. The role of autologous stem cell transplantation remains well supported by both clinical trial data and real-world outcomes. In transplant-ineligible populations, quadruplet-based strategies are being explored to improve depth of response while balancing tolerability. The expanding use of CAR-T cell therapy and bispecific antibodies has demonstrated substantial efficacy in relapsed and refractory disease, although access disparities persist across the Asia-Pacific region. This session will also address evolving strategies for therapy sequencing, toxicity mitigation, and integration of novel agents including CELMoDs, dual bispecifics, and trispecifics. The presentation will highlight emerging therapeutic options and their implications for future treatment paradigms.

Sumeet Mirgh

DR SUMEET MIRGH, ASSOCIATE PROFESSOR

Designation - Associate Professor, Adult Hematolymphoid and BMT

Dr. Sumeet Mirgh is an Associate Professor in Adult Hematolymphoid and Bone Marrow Transplant (BMT) at Tata Memorial Hospital, ACTREC, Mumbai, India. He earned his M.B.B.S. from R.C.S.M.G.M.C., Kolhapur, followed by an M.D. in Internal Medicine from Bombay Hospital Institute of Medical Sciences, and a D.M. in Clinical Hematology from AIIMS, New Delhi. He holds European Hematology Association certification and has received multiple national and international awards for excellence in hematology and oncology research.

Dr. Mirgh has authored over 65 peer-reviewed publications, contributed chapters to major hematology textbooks, and served as a reviewer for leading journals including the British Journal of Haematology and Cancer Medicine. His primary research interests include multiple myeloma, stem cell transplantation, hematologic malignancies, and innovative therapeutic approaches in resource-limited settings. He has presented extensively at global forums such as ASH, EHA, EBMT, and APBMT, and is an active member of ISHBT, IMAGe, and EBMT.

Revisiting the standard 200 mg/m^2 dose of melphalan for autologous transplant in myeloma in the era of MRD

Melphalan 200 mg/m^2 (Mel-200) has been the standard consolidation therapy in newly diagnosed multiple myeloma (NDMM) since the VAD (Vincristine-Adriamycin-Dexamethasone) era. Induction regimens have evolved from conventional chemotherapy based to Proteasome inhibitor (PI) plus immunomodulator drug (IMiD) based triplets to anti-CD38 based quadruplets. Similarly, maintenance has evolved from no maintenance to IMiD alone to combination of IMiD with PI or anti-CD38. While induction and maintenance strategies have seen profound transformations, Mel-200 still remains the undisputed standard conditioning dose.

Melphalan 140 mg/m^2 (Mel-140) is used in patients perceived to be at risk of excess toxicity. While transplant-related mortality (TRM) with Mel-200 ASCT remains less than 1% in western countries, it varies between 2-7% for low-middle income countries (LMICs). Moreover, the incidence of grade 3-4 mucositis in LMICs is approximately 50% with Mel-200, which contributes to patient morbidity and their perception about transplant. This highlights the need for safer and less toxic conditioning in MM. Previous retrospective analyses which have compared Melphalan 200 mg/m^2 versus 140 mg/m^2, including studies from EBMT registry, M.D. Anderson Cancer Centre (MDACC) and India, have shown similar survival for lower dose of melphalan, especially in patients who achieved at-least a VGPR prior to ASCT. Literature suggests that lower doses of Melphalan is equally effective in patients who achieve deep responses after induction. In the current era of triplets/quadruplets, majority patients achieve deep responses (≥VGPR). Our institutional analysis (n=176) of MM ASCT patients showed that there was no difference in PFS or OS between Mel-140 vs Mel-200. Importantly, when stratified for MRD (both marrow and imaging) and cytogenetics, Mel-140 was non-inferior to Mel-200 in patients with negative pre-transplant marrow / imaging MRD and those with standard risk cytogenetics. The above evidence compels us to think if time has come to dethrone Mel-200 as the “standard” conditioning in the “MRD era”!

Session 12

Enhancing Access to HSCT: Establishing services with limited resources

Chairman: Alok Srivastava, Huynh Van Man
Hall: BALLROOM 2
Time: 08:30 – 10:00

01

Establishing haematopoietic stem cell transplant services with limited resources – Kolhapur, India
Abhijeet Ganapule, Kolhapur

02

Experience in establishing services with limited resources
Venkatesh Ekbote, Aurangabad

03

Establishing haematopoietic stem cell transplant services with limited resources: Goraj, India
Shailesh Lavana, Gujarat

04

Establishing haemopoietic stem cell transplant services with limited resources, Tiruchirapalli, India
R. M. Subaiah, Tiruchirappalli

ABHIJEET GANAPULE

DR. ABHIJEET P. GANAPULE M.D, PH.D

VENKATESH EKBOTE

DR.VENKATESHS.EKBOTEMD.DM (HEMATOLOGY,CMC VELLORE) FELLOWSHIP; LEUKEMIA/BMT (BRITISH COLUMBIA, CANADA)

SHAILESH LAVANA

DR SHAILESHKUMAR LAVANA

R. M. SUBBAIAH

DR SUBBAIAH RAMANATHAN

Abhijeet Ganapule

DR. ABHIJEET P. GANAPULE M.D, PH.D

Lead Transplant Physician Kolhapur Cancer Center Kolhapur

Dr. Abhijeet P. Ganapule is a distinguished clinical hematologist and academician currently serving as Associate Professor in the Department of Hematology at Dr. DY Patil Medical College, Kolhapur, India. With over 15 years of experience in clinical hematology and stem cell transplantation, Dr. Ganapule has made significant contributions to the advancement of hematologic care in India.

He completed his MBBS from Dr. DY Patil Medical College, Kolhapur, followed by an MD in Paediatrics from Krishna Institute of Medical Sciences, Karad. He pursued super-specialty training in Clinical Hematology, earning a DM from Dr. MGR Medical University through Christian Medical College (CMC), Vellore—one of India's premier institutions. He also holds a DNB in Hematology from the National Board of Examinations.

Dr. Ganapule began his academic and clinical career at CMC Vellore, where he served in various capacities including Senior Registrar, Tutor, and Associate Professor in the Department of Hematology. During his tenure, he was actively involved in inpatient and outpatient hematologic care, stem cell transplant services, and medical education. He played a key role in the management of both benign and malignant hematologic disorders, with particular focus on acute leukemia, aplastic anemia, and allogeneic transplantation.

His clinical expertise is complemented by a strong research portfolio. Dr. Ganapule has delivered multiple oral presentations at national and international conferences, including ISHTM, BMT Tandem, and ASH. His research interests center on reduced-intensity conditioning regimens, cost-effectiveness of transplantation in low-resource settings, and real-world outcomes in acute myeloid leukemia (AML). Notably, he received the Best Oral Presentation Award at ISHTM 2013 for his work on allogeneic stem cell transplantation in AML.

Dr. Ganapule has authored numerous peer-reviewed publications in leading journals, covering a spectrum of topics such as thalassemia transplantation, rare hematologic malignancies, and transplant-related complications.

Establishing haematopoietic stem cell transplant services with limited resources – Kolhapur, India

In India Hematopoietic stem cell transplant (HSCT) services are available in tertiary care multispecialty hospitals in metropolitan cities. Access to these centers for patients from tier 2/3 cities is difficult due to financial and logistic reasons (travel and stay). If this facility is available in patient's home town, it will help in cutting the cost and add to the convenience.

Methodology: Kolhapur Cancer center (KCC) is 20 years old, 50-bed hospital dedicated to Oncology service. Kolhapur is tier two city situated in Western Maharashtra-India. Hematology services were started in 2015. After one year in December 2016 first allogeneic stem cell transplant was done for aplastic anemia. In the first three years stem cell transplant (SCT) were done in rooms without HEPA filters. From December 2020 the SCTs were done in HEPA filter rooms - both autologous and allogeneic including haploidentical SCTs. Drugs for conditioning chemotherapy, immunosuppression and antibiotics are widely and easily accessible in the country. In-house radiation facility is available, which has helped us to give TBI-based conditioning therapy, if needed, since the beginning of our transplant program. Inhouse hematopathology, histopathology and radiology services (including CT scan) are also available in the hospital. Microbiology services are outsourced, so are the blood bank and cryopreservation services. As this is an oncology focused hospital, services from gastroenterologist, nephrologist, dermatologist and psychiatrist are sought on consultation basis from outside. Hickman lines are expensive and the expertise being unavailable inhouse, all patients are managed with PICC lines, triple-lumen subclavian line for venous access. Nursing care is actually pillar of our transplant program. We always maintain patient to nurse ratio of 1:1. There are no medical officers or junior residents posted in transplant facility. After daily ward rounds, execution of orders, following up the reports, informing the changes in clinical condition and preparing preliminary discharge summary is done by staff nurses.

Results: Total 29 transplants have been done (16 autologous and 13 allogeneic stem cell transplants). Of the 13 patients who underwent allogeneic stem cell transplant, 4 underwent haploidentical stem cell transplant and 9 underwent matched sibling allogeneic stem cell transplant. The commonest indication for allogeneic stem cell transplant was acute lymphoblastic leukemia (Ph positive and relapsed acute lymphoblastic leukemia) 6 cases (46%). The commonest indication for autologous transplant was multiple myeloma, 8 cases (50%). Of the 13 allogeneic stem cell transplants 4 patients are surviving, longest surviving patient post-transplant is a case of acute myeloid leukemia for 6 years disease free and without GVHD. Causes of death in allogeneic group were as follows relapse 3(33.33%), GVHD 3(33.33%), Graft failure 1(11.11%), Sepsis with 2(22.22%). Among 16 autologous transplant patients, 9 patients are surviving, longest survivor being a case of multiple myeloma in remission after 7.5 years. Causes of death in autologous group were as follows: sepsis 4(57%) and relapse 3(43%). Transplant cost at our center is significantly low compared to larger HSCT centers in the country. Autologous transplant costs Rs 300-600,000 (US$3.5-7.2K), allogeneic stem cell transplant Rs 800-1000,000 (US$9.5-12K) whereas haploidentical transplant costs Rs. 800-1,200,000 (US$ 9.5-14 K).

Conclusion: Now that HSCT service is established, we need to help patients to mobilize fund through CSR (Corporate Social Responsibility) and government schemes. Poor outcomes in allogeneic group were probably due to high-risk disease profile (Philadelphia chromosome positive, relapse acute lymphoblastic leukemia) and type of graft (4 of 13 allogeneic stem cell transplants were haploidentical transplants). We need to be more selective in choosing cases. In autologous group the overall survival was 56%, we can improve the outcomes in this group by reducing the transplant related mortality. One more hematologist will help in increasing as well as improving the quality of the program.

Venkatesh Ekbote

DR.VENKATESHS.EKBOTEMD.DM (HEMATOLOGY,CMC VELLORE) FELLOWSHIP; LEUKEMIA/BMT (BRITISH COLUMBIA, CANADA)

Hematologist, Hemato-Oncologist & Bone Marrow Transplant Physician
Director: Clinical Hematology & BMT Services
Kamalnayan Bajaj Hospital, Aurangabad, Maharashtra

Dr. Venkatesh S. Ekbote is a Consultant Hematologist and Stem Cell Transplant Physician at Kamalnayan Bajaj Hospital in Aurangabad, Maharashtra, India. He completed his MBBS and MD in General Medicine from institutions under Dr. B. R. Ambedkar Marathwada University, followed by a DM in Clinical Hematology from Christian Medical College (CMC), Vellore, where he was awarded the Gold Medal for academic excellence.

He further trained in leukemia and stem cell transplantation through a dedicated fellowship at the University of British Columbia, Vancouver General Hospital, Canada. Dr. Ekbote has over 15 years of experience managing benign and malignant hematologic disorders, with a strong focus on stem cell transplantation, transfusion medicine, and clinical hematopathology.

He has presented his work at major forums, including the American Society of Hematology (ASH), and is actively involved in research, clinical audits, and teaching. His contributions continue to advance hematologic care in both academic and private healthcare settings.

Establishing haematopoietic stem cell transplant services with limited resources – Ch.SambhajiNagar,Maharashtra, India

Kamalnayan Bajaj Charitable Trust Hospital in Chhatrapati Sambhaji Nagar, Maharashtra, India caters to approximately 5-6 million population from the city & its neighboring region. It's a 300 bed NABH accredited multi-speciality hospital with in-house pathology, microbiology & radiology services, paediatric & adult ICUs & radiation oncology unit equipped with TBI facility. With the aim to provide wider access to hematology & hematopoietic stem cell transplant (HSCT) services, haematology service was started here in 2015 by a single trained haematologist & extended to a HSCT program in 2017 reporting data to the Indian HSCT registry. The challenge to establish apheresis services & irradiated blood products required training personnel of an accredited blood bank in the city. Collaboration with established transplant centres helped establish nurse training & practices. Cryopreservation at -80C (dump freezing) is done in house while CD34 counts, chimerism & virology assays are outsourced to high throughput labs. Use of generic molecules (treosulfan,melphalan,IV busulfan,Fludarabine,ATG,Thiotepa) has helped bridge drug procurement gap, although procuring defibrotide & eculizumab remain a challenge. Fundraising for poor patients keeps the program sustainable.

Results: Since inception in 2016, a total of 106 HSCTs have been performed: - Autologous: 43(29 myeloma, 4 amyloidosis, 1 lcdd , 6 lymphoma & 2 neuroblastoma), Allogeneic: 37(12 AML,8 SAA, 6 CML, 3ALL, 2 MDS,4 PNH,2 lymphomas,1FHLH) Haplo-identical: 26 (7AML,8 ALL,3 MDS,2 CML,3 SAA,1PNH,1lymphoma,1FHLH). Of these patients 90.8% are adults (aged 19 to 74 years) & 10/106 (9.2%) are children (age 3 to 18 years).

All transplants used peripheral blood stem cell grafts for both malignant & non-malignant diseases (32 MRD, 5 MUD & 26 haplo-identical grafts). All had successful engraftment except 2 patients; 1 engrafted successfully after second transplant, while other did not survive the second transplant. Commonest indication is multiple myeloma (78%) for autologous transplant & it is leukaemia (48.8%) for allogeneic transplant (MRD: 43%, Haploidentical: 62.9%).

Transplant related mortality is 4.8% for autologous transplant, 18.4% for allogeneic transplant & 35.2% for haploidentical transplant. Approximate cost of first 100 days of transplant care is 5.5 lakh INR (6500 USD) for autologous transplant, 7.2 lakh INR (8200 USD) for matched allogeneic transplant & 9.3 lakh INR (10,400 USD) for haplo-identical transplant at our centre.

Conclusion: Single physician HSCT centres can be established & sustained with appropriate institutional & peer support in overcoming challenges. This helps provide access to patients who would otherwise not reach any HSCT service. An expanded team (infectious disease specialist, onco-pharmacist, psycho-oncologists & counsellors) remains a long-term goal.

Shaileshkumar Lavana

DR SHAILESHKUMAR LAVANA

Consultant, Kailash Cancer Hospital and Research Centre, Goraj (Gujarat, India)

Dr. Shailesh Lavana is a Consultant Hematologist and Stem Cell Transplant Physician at Kailash Cancer Hospital and Research Center, Goraj (Vadodara), Gujarat, India. He obtained his MBBS and MD in Pathology from Government Medical College, Surat, and later completed his DM in Clinical Hematology from the prestigious Christian Medical College (CMC), Vellore.

With extensive experience in benign and malignant hematological conditions, Dr. Lavana is actively involved in bone marrow transplantation and transfusion medicine. He has presented his work at several national and international conferences, including the Indian Society of Hematology and Transfusion Medicine (Haematocon), ISBT, and the APBMT Annual Meeting. His abstracts have addressed areas such as aplastic anemia, donor-type red cell transfusion in ABO-incompatible transplants, and stem cell mobilization in sickle cell trait donors.

Dr. Lavana has contributed to multiple peer-reviewed publications, including studies on lymphoma in pregnancy, thalassemia transplant outcomes, and hemoglobinopathies. He has also served as an investigator in numerous clinical trials focusing on biosimilars and targeted therapies in hematologic malignancies.

Dedicated to advancing hematologic care through clinical excellence and research, Dr. Lavana continues to contribute to the field through evidence-based practice and academic collaboration.

Establishing haematopoietic stem cell transplant services with limited resources: Goraj, India

Introduction:

In low and middle-income countries, access to hematopoietic stem cell transplant (HSCT) remains a major barrier because of the logistics of location, apart from the cost. This report will provide a summary of establishing a hematopoietic and stem cell transplant service in a rural-based trust hospital in India, making it both accessible and affordable.

Method:

The Kailash Cancer Hospital and Research Centre is a rural trust hospital in Goraj, primarily serving socioeconomically disadvantaged patients from Gujarat and neighbouring states in western India.

At the time of my joining, I was the sole transplant physician. There were no trained junior doctors or intensivists. The unit was staffed with a few qualified nurses assisted by some who had undergone 6 months of training in a vocational college. The isolation room consisted of two rooms with a single bathroom. A single ICU catering to both medical and surgical patients.

The department has since expanded to an 8-bed BMT unit equipped with HEPA filtration and positive pressure. The blood bank is FDA-approved and licensed to provide all components. Both medical and surgical ICU are now established in the hospital.

Results:

Since 2019, a total of 173 hematopoietic stem cell transplants have been done, including 73 Autologous and 100 Allogeneic stem cell transplants (Matched related donor:67, Matched Unrelated Donor: 4, Haploidentical: 29).

Almost 9 months after joining, the first autologous stem cell transplant was performed in a shared room without HEPA filtration and positive pressure. Initially, six transplants were done in an isolation room without HEPA filtration and positive pressure.

The commonest indication of autologous stem cell transplant was multiple myeloma (60.2%), followed by relapsed Hodgkin disease (28.7%), relapsed diffuse large B cell lymphoma (5.4%), and others (5.3%).For allogeneic stem cell transplants, major indications were thalassemia major (27%), followed by acute myeloid leukemia (19%), aplastic anemia (18%), myelodysplastic syndromes (13%), acute lymphoblastic leukemia (12 %), and others (11%).

The transplant-related mortality in autologous transplants, matched related donor transplants, matched unrelated donor transplants, and haploidentical transplants are 4.1%, 10.6%, 25%, and 37%, respectively.

Conclusions:

Establishing a hematopoietic stem cell transplant (HSCT) unit in rural India is feasible. The key challenges included the availability of trained doctors, establishing nursing practice, and access to advanced laboratory tests. Training and confidence of the lead physician, high motivation and institutional support are the three essential requirements for success.

R. M. Subbaiah

DR SUBBAIAH RAMANATHAN

Cosultant clinical haematologist at Kauvery hospitals, Trichy, India

Dr. Subbaiah RM is a distinguished clinical haematologist with a strong academic foundation and over a decade of experience in haematology and bone marrow transplantation. He earned his MBBS from Madurai Medical College, followed by an MD in Pathology from PGIMER, and a DM in Clinical Haematology from Christian Medical College, Vellore.

Dr. Subbaiah served as Assistant Professor of Clinical Haematology at CMC Vellore before taking on his current role at Kauvery Hospital, Trichy. Notably, he was the first to perform a bone marrow transplantation in the district of Trichy, where he has since led over 90 transplants in the past five years.

His clinical and research interests include bone marrow failure syndromes, thrombosis and haemostasis, and stem cell transplantation. He has contributed to several peer-reviewed publications and presented at national and international conferences, including APBMT 2023 in Indonesia.

Establishing haemopoietic stem cell transplant services with limited resources, Tiruchirapalli, India

Introduction: Most of the haemopoietic stem cell transplant (HSCT) centres are established in tier-1 cities (population of 1 million and above). Establishing a HSCT centre in a tier-2 city (0.5 to less than 1 million population) remains a challenge but there is a necessity to increase access and to reduce cost. Here we share our experience in establishing the first HSCT in Tiruchirapalli (a tier-2 city in Tamil Nadu, South India) in a resource limited health care environment.

Methods: A single physician managed clinical haematology unit when it was started in Sep 2019 at Kauvery hospitals, Tiruchirapalli, India which is a 250 bedded tertiary care centre. The hospital caters adult & paediatric patients, for both malignant & benign haematological disorders. Preparing for HSCT services, training nurses in oncology care, improving transfusion medicine services, expanding the scope of laboratory services particularly microbiology were also done gradually. The first autologous BMT was performed in Aug 2020 & the first allogeneic BMT was done in March 2021. A paediatric haematologist joined the transplant team in Nov 2021. Later we could do haploidentical and MUD BMTs. Tests like HLA typing, donor specific antibodies, CD34 enumeration, chimerism analysis are outsourced and doing fine. Access to conditioning regimen and other drugs for post-transplant infections or GVHD are present and in rare instances if not immediately available they might be shipped from Chennai within next 6-12 hours. Allied department consultations for transplant patients are available in the hospital. We started doing BMTs in a non-HEPA filtered clean single room (2020) and then established a 2 bedded HEPA filtered unit (2021) which is now upgraded to a 5 bedded unit (Sep 2024).

Results: Till date we have done 102 BMTs (autologous 49 and allogeneic 53) including 16 haploidentical and 4 MUD BMTs. Adult and paediatric patients were 78 and 24 respectively. Indications for autologous BMT are myeloma (39), non-Hodgkin lymphoma (4), Hodgkin lymphoma (4), acute promyelocytic leukaemia (1) and neuroblastoma (1). Indications for allogeneic BMT are leukaemia (total 32- AML (18), ALL (12), MPAL (1), CML (1)), myelofibrosis (3), Myelodysplastic syndrome (2), Aplastic anaemia (6), Fanconi anaemia (3), Thalassemia (4), osteoporosis (1), severe combined immunodeficiency (1) and bare lymphocyte syndrome (1). Overall survival is 73% (85.8% in autologous and 60.4% in allogeneic BMTs). GVHD accounted to 35.8% in allogeneic BMTs (19/53). Amongst mortality in autologous transplant, progressive disease was in 7/8 patients and infection was in 1/8 patient. Amongst mortality in allogeneic transplant, steroid refractory GVHD was in 8/22 and relapse in 6/22 patients. 4/53 patients in allogeneic transplant died prior to engraftment due to infection/HLH. The cost for an autologous BMT is about 5K USD and that for allogeneic BMT about 10K USD.

Conclusion: This experience shows that a single physician haematology including HSCT services can be initiated in suitable non-teaching hospitals. People in smaller cities and surrounding rural areas benefit as they cannot travel to HSCT centres in larger and often distant cities, neither afford lodging or boarding there for sophisticated BMT services. Our services provide a model for setting up HSCT services in service hospitals in smaller cities.

Session 13

Leukemia, MDS, MPN

Chairman: Than Hein, Ngo Ngoc Ngan Linh
Hall: BALLROOM 3
Time: 08:30 - 10:00

01

Allogeneic HSCT in relapsed AML
Friedrich Stölzel, Kiel

02

FORUM study: HSCT in children and adolescents with acute lymphoblastic leukemia
Yves Bertrand, Lyon

03

Maintenance therapy after allo-HSCT for AML/MDS
Phu Chi Dung, Ho Chi Minh

FRIEDRICH STÖLZEL

FRIEDRICH STÖLZEL, MD, PROF. DR

YVES BERTRAND

DR. YVES BERTRAND, MD, PHD

PHU CHI DUNG

PROF. PHU CHI DUNG M.D, PH.D

Friedrich Stölzel

FRIEDRICH STÖLZEL, MD, PROF. DR

Chair for Stem Cell Transplantation and Cellular Immunotherapies, Christian-Albrechts-University, Kiel, Germany
Division Chief Stem Cell Transplantation and Cellular Immunotherapies, University Hospital Schleswig-Holstein, Kiel, Germany

Prof. Dr. Friedrich Stölzel, MD: Chair of Stem Cell Transplantation and Cellular Immunotherapies, Christian-Albrechts-University, Kiel, Germany

Division Chief, Stem Cell Transplantation and Cellular Immunotherapies, University Hospital Schleswig-Holstein, Kiel, Germany

Prof. Dr. Friedrich Stölzel is a leading expert in the field of haematology, with a specialized focus on acute leukemias and cellular immunotherapies. He currently holds dual roles as Chair of Stem Cell Transplantation and Cellular Immunotherapies at the Christian-Albrechts-University in Kiel, and as Division Chief of the same specialty at the University Hospital Schleswig-Holstein.

A seasoned clinical researcher, Prof. Stölzel serves as the Principal Investigator for two major clinical trials: PIVOT (TUD-PIVOT1-085) and ETAL5/RELEVANT (TUD-ETAL-5-084), both of which play a pivotal role in advancing therapeutic strategies in leukemia treatment and cellular therapy.

His career is distinguished by leadership in academic medicine and innovation in cellular therapies. His research and clinical programs continue to shape the future of hematologic oncology and stem cell transplantation.

Allogeneic HSCT in relapsed AML

While frontline intensive- and non-intensive therapies for patients with Acute Myeloid Leukemia (AML) have improved over the past years, still relapse poses a major setback for the majority of patients. Intensive induction therapies have been shaped for fit patients with the modification of induction regimens and by adding targeted-therapies. Targeted non-intensive combinatorial treatment strategies have also been improved for elderly/unfit patients and thus converting unfit- into fit patients susceptible for potential curativeallogeneic hematopoietic stem-cell transplantation (HSCT). These modifications in frontline therapy for patients with AML in combination with improvements in preparative and prophylactic measures before and during allogeneic HSCT itself result in improved fitness of patients during and after treatment, increased rates of complete remission (CR) and thus to increased ratesof allogeneic HSCT worldwide. However,the incidence of relapse for all AML patient groups,including the reflection of elderly- vs. younger patientsas well as fit- v. unfit patients, and various genetic risk-groups is still unacceptably high. Diagnostic-, prophylactic-, preemptive-, and therapeutic measures such as measurement of minimal residual(or measurable) disease (MRD), prophylactic- and/or preemptive treatments as well as therapeutic interventions and treatments have improved but at the same time many questions remain unanswered. The sensitivity and specificity of diagnostic measures as well as their prognostic vs. predictive impact and timing are uncertainas well as their respective degree with which they can be generalized are yet to be determined. In this presentation I will attempt to review and discuss our current understanding of the role, the path, possible modifications, and the barriers for allogeneic HSCT for patients with relapsed AML.

Yves Bertrand

DR. YVES BERTRAND, MD, PHD

Professor of Pediatrics, Hematologist-Oncologist
Head of Pediatric Hematology and Oncology (2003–2023)
Hospices Civils de Lyon – Institut d'Hématologie et d'Oncologie Pédiatrique (IHOPe), Lyon, France

Dr. Yves Bertrand is a leading pediatric hematologist-oncologist based in Lyon, France, with over 30 years of clinical and academic experience. He currently works at the Institut d'Hématologie et d'Oncologie Pédiatrique (IHOPe) under the Hospices Civils de Lyon, and has served as Head of the Pediatric Hematology Department for two decades.

He completed his medical degree and pediatric specialization at Paris VI University, followed by a DEA (Master of Advanced Studies) in Genetics and Immunology and a PhD from Lyon I University. His clinical expertise encompasses acute lymphoblastic leukemia (ALL), acute myeloid leukemia (AML), lymphomas, immunodeficiencies, inborn errors, and pediatric stem cell transplantation.

Dr. Bertrand has held several high-ranking positions, including:

- Head of Pediatric Hematology and Bone Marrow Transplantation at IHOPe (2003–2023)
- Former President of the EORTC Childhood Leukemia Group (2003–2009)
- Vice President of the French Society for Childhood Cancers (SFCE, 2012–2017)

He is a principal investigator in multiple clinical trials and actively contributes to international research collaborations in pediatric hematology. He regularly serves as speaker and faculty member at major international conferences. His work has led to over 100 peer-reviewed publications, including in The Journal of Allergy and Clinical Immunology, British Journal of Haematology, Modern Pathology, Cancer Medicine, and Fertility and Sterility.

Dr. Bertrand holds a current GCP (Good Clinical Practice) certification (2022) and continues to lead clinical innovation in pediatric cancer care.

FORUM trial : HSCT in children and adolescent with ALL

Allogenic hematopoietic stem- cell- transplantation is recommended for high-risk acute lymphoblastic (ALL) patients (1st line chemoresistant as indicated by high MRD levels after consolidation, or subsequent lines of treatment). Total body irradiation containing regimens are widely used in such patients, but TBI has lifelong many adverse effects. FORUM is a randomized, controlled, open-label, international multicenter trial investigating whether preparative combination of optimal chemotherapy is non inferior to TBI. Actualisation of the results will be presented, showing in 413 randomized patients the 4 -years EFS and OS being significantly higher following TBI versus chemoconditioning regimen (lower relapse risk and TRM).

Furthermore, other studies have been performed : chemo-conditioning with Busulfan vs Treosulfan showed no significant differences regarding EFS, OS, GvHD ; FORUM study was analysed in patients < 4y.old and in 191 evaluable children it was shown that HSCT in CR1 was better that after relapse. Multivariate analysis showed poorer EFS in children < 1 yr whereas KMT2A was significant for OS (HR 1.96).

Children with HR first relapse B-ALL receiving blinatumomab before HSCT had better EFS and OS as compared with patients treated with chemotherapy only (higher proportion of patients with undetectable MRD with immunotherapy)

Many questions are still not answered in this trial concerning the long term follow-up of patients, and particularly the late sequalae (gonadal toxicity, second malignancy, final height and organ dysfunctions).

Due to the increasing overall survival in many childhood cancers, and more than 90 % 5-years survival in ALL, it seems mandatory to integrate long-term toxicities in treatment evaluation. Recently an international initiative resulted in a consensus definition of 21 severe toxicities, and severe toxicity free-survival (STFS). This will help to compare the different toxicities across different protocols, and facilitate the modificiations of therapy with the goal of reducing toxicities without compromising the cure of the patients.

PHU CHI DUNG

PROF. PHU CHI DUNG M.D, PH.D

Blood Transfusion and Hematology Hospital

Prof. Phu Chi Dung is the director of Blood Transfusion and Hematology Hospital in Ho Chi Minh, City, Vietnam.

Prof.Phu Chi Dung graduated medical degree at University of Medicine and Pharmacy, Ho Chi Minh City. He took the resident doctor course at University Hospital Center Saint - Antoine, Paris, France and the course of resident physician, Jules Bordet Institute, Brussels, Belgium. He then earned the title of French Professeur in 2019 at the University Institute (CHU) of Grenoble Alpes and he was the first Vietnamese to be conferred a professor by the CHU of Grenoble Alpes

As a Vietnamese expert in blood transfusion and hematology, Prof. Phu Chi Dung has contributed a lot to promote not only the development the field of hematology in Vietnam, but also the development in relationships with leading experts in the world such as France, Belgium, USA, Japan, Taiwan, Australia,etc... Prof.Phu Chi Dung has published many national and international studies and research related to hematology protocol, blood bank, stem cell transplatation...

He is currently the President of Ho Chi Minh City Blood Transfusion and Hematology Association and the vice-president of Vietnam Association of Hematology and Blood Transfusion. He is also the Vice- president of Asia Cellular Therapy Organization.

Maintenance Therapy after Allogeneic HSCT for High-Risk AML/MDS

Background

Relapse remains the leading cause of failure after allogeneic haematopoietic stem-cell transplantation (HSCT) in acute myeloid leukaemia (AML) and myelodysplastic syndrome (MDS). Post-transplant maintenance is increasingly employed, yet real-world data from Southeast Asia are scarce.

Methods

A retrospective cohort study was conducted at the Blood Transfusion Hematology Hospital, Ho Chi Minh City, Vietnam. All consecutive adults with high-risk AML or MDS who underwent first allogeneic HSCT between January 2019 and December 2024 and subsequently received any maintenance strategy were reviewed. Maintenance modalities included hypomethylating agents (HMAs) ± donor lymphocyte infusion (DLI), tyrosine-kinase inhibitors (TKIs), and FLT3 inhibitors ± DLI. Overall survival (OS) and disease-free survival (DFS) were estimated using the Kaplan–Meier method. Follow-up was censored on 31 December 2024.

Results

Seventy patients met the inclusion criteria: 54 with AML (77.1%) and 16 with MDS (22.9%). Maintenance distribution was HMA ± DLI in 59 cases (84.3 %), single-agent DLI in 1 (1.4 %), TKI in 2 (2.9 %), and FLT3 inhibitor ± DLI in 8 (11.4 %). The median follow-up among survivors was 34.9 months (95% CI, 29.78–40.06). Survival outcomes include two-year OS: 74.7 % (95 % CI 64.1-85.3), estimated three-year OS: 64.5 % (95 % CI 51.2–77.8), two-year DFS: 67.7 % (95 % CI 56.1-79.3), and estimated three-year DFS: 64.7 % (95 % CI 52.4-77)

Conclusions

In this Vietnamese single-center experience, post-transplant maintenance—predominantly HMA-based—was feasible and associated with encouraging OS/DFS in high-risk AML/MDS patients. Prospective multicenter trials are warranted to confirm efficacy and refine patient selection for each maintenance platform.

Keywords: acute myeloid leukaemia, myelodysplastic syndrome, allogeneic HSCT, maintenance therapy, hypomethylating agent, FLT3 inhibitor, donor lymphocyte infusion.

Plenary Session 3
Artificial Intelligence in HSCT

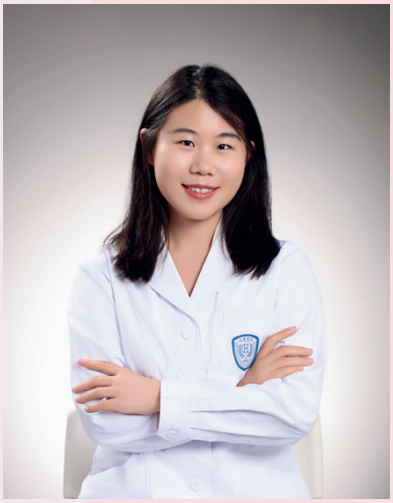
Chairman: Bor-Sheng Ko, Vo Thi Thanh Truc
Hall: BALLROOM
Time: 10:30 – 11:15

01

Hematopoietic Stem Cell Transplantation: Risk Stratification, Machine Learning, and Models
Jing Liu, Peking

11:15 - 12:00

AWARD ANNOUNCEMENTS AND CLOSING REMARKS



JING LIU

JING LIU, M.D

Jing Liu

JING LIU, M.D

Department of Hematology, Peking University People's Hospital; Peking University Institute of Hematology; National Clinical Research Center for Hematologic Diseases

Dr. Jing Liu is an Associate Chief Physician at Peking University People's Hospital and a leading expert in hematologic malignancies and hematopoietic stem cell transplantation. With extensive clinical experience, Dr. Liu is dedicated to the comprehensive management of complex blood cancers and has contributed significantly to improving transplantation outcomes.

Her research focuses on two critical areas:

1. The prevention and treatment of post-transplant leukemia relapse
2. The development and clinical integration of big data platforms for hematological diseases

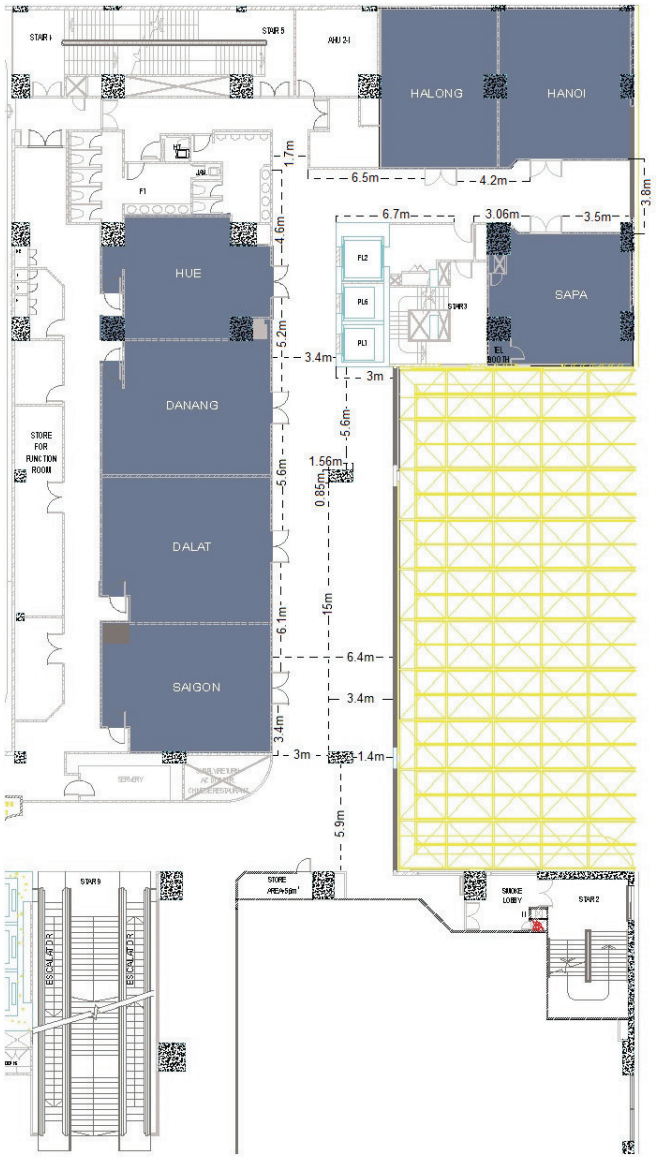
Dr. Liu's contributions have not only advanced patient care protocols but also enhanced data-driven strategies for diagnosis and long-term monitoring. Her multidisciplinary approach bridges clinical innovation with technology, aiming to optimize personalized medicine in hematology.

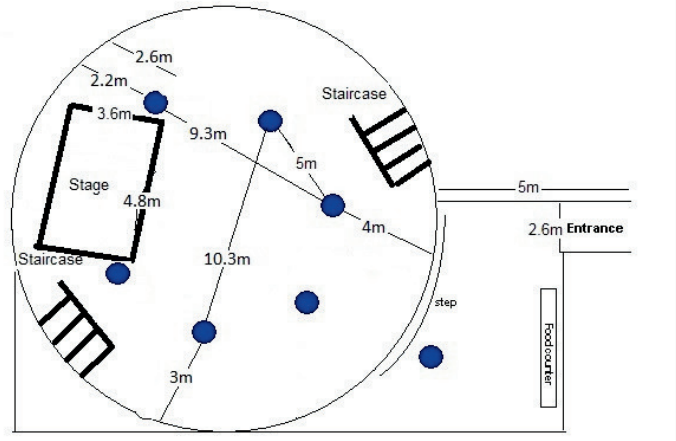
Hematopoietic Stem Cell Transplantation: Risk Stratification, Machine Learning, and Models

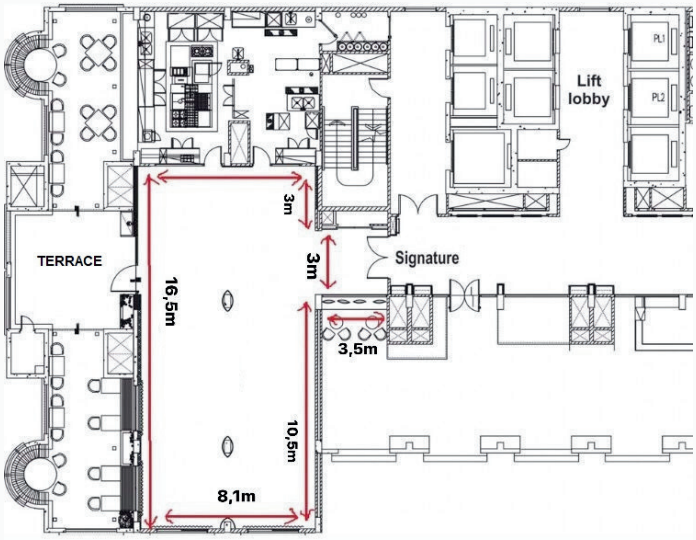
Hematopoietic stem cell transplantation (HSCT) has shifted from a uniform approach to precision medicine, where personalized interventions optimize outcomes. This presentation highlights risk stratification and machine learning (ML) models as key drivers of this evolution. Traditional tools like IPSS-R (MDS) or ELN (AML) use limited variables (disease stage, age) with moderate accuracy (AUC ~0.6–0.7) but miss complex interactions between genetics, donor factors, and comorbidities. Precision stratification integrates multi-dimensional data—genomic mutations (FLT3, NPM1), minimal residual disease (MRD), donor HLA matching—via ML models (random forests, neural networks). These models outperform traditional tools (AUC ~0.8–0.85), predicting relapse, graft-versus-host disease (GVHD), and survival more accurately. Clinically, ML guides donor selection, adjusts conditioning intensity (reduced for low-risk patients to lower toxicity), and targets post-transplant MRD monitoring. Challenges include data standardization and model interpretability. Future steps involve global collaboration (e.g., APBMT registries), real-time data integration, and user-friendly tools. ML-driven precision will redefine HSCT, enhancing safety and efficacy through personalized care.

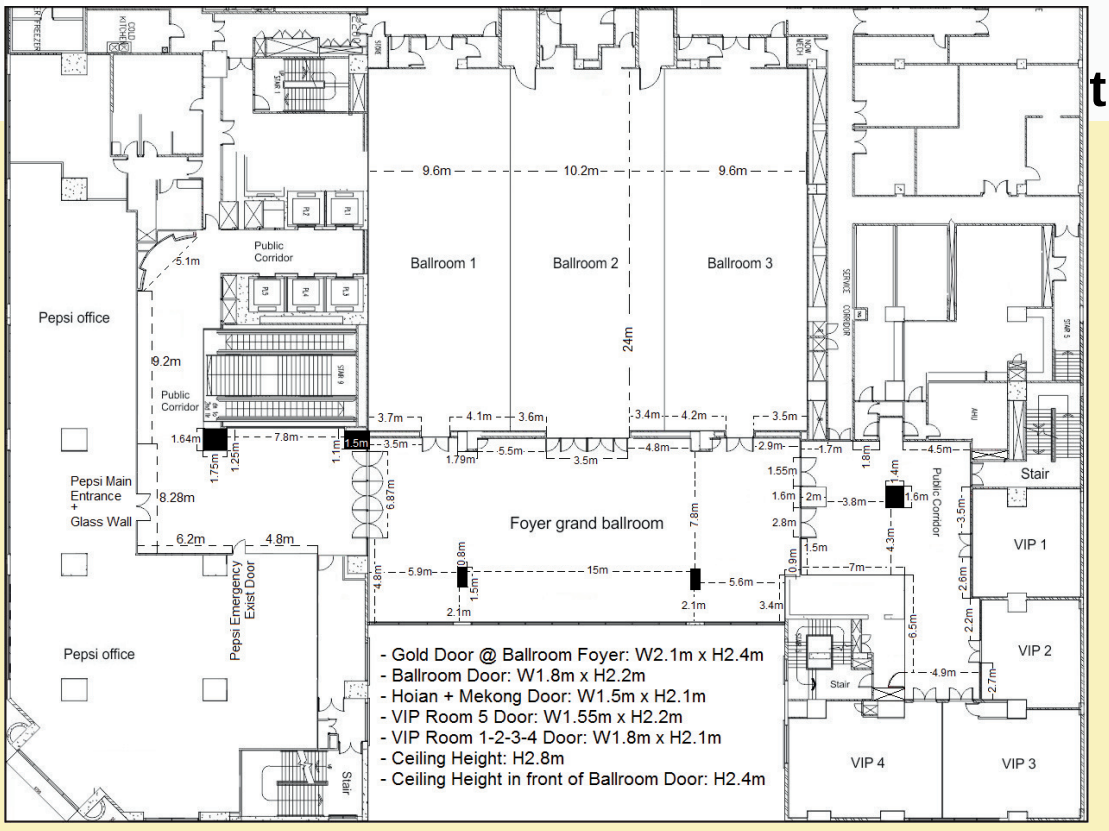
GENERAL INFORMATION

MAP OF CONFERENCE CENTER

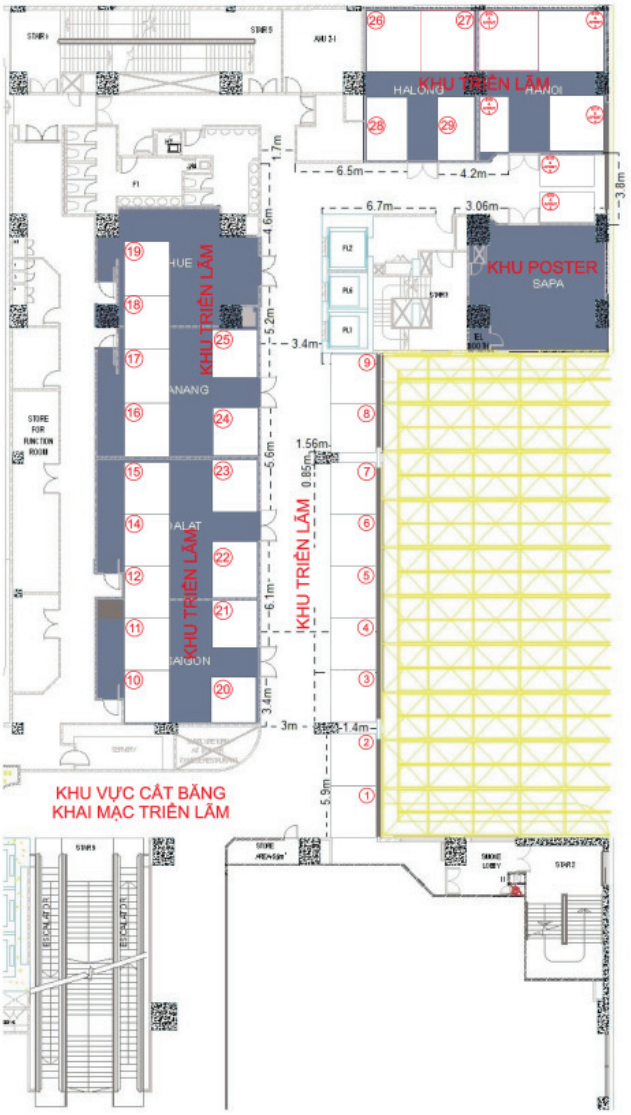








Map of the Halls



- Ceiling Height: 2.8m
- Meeting Door: W1.6m x H2.36m

Số Gian Hàng	Kích thước (N*S*C) (m) N: ngang S: sâu C: cao	Số Gian Hàng	Kích thước (N*S*C) (m) N: ngang S: sâu C: cao
1	2.9*2.5*2.6	19	2.9*2.5*2.4
2	2.9*2.5*2.6	20	2.5*2.5*2.4
3	2.95*2.5*2.6	21	3.0*2.5*2.4
4	2.95*2.5*2.6	22	3.0*2.5*2.4
5	2.95*2.5*2.6	23	2.5*2.5*2.4
6	2.95*2.5*2.6	24	2.5*2.5*2.4
7	2.95*2.5*2.6	25	2.5*2.5*2.4
8	2.75*2.5*2.6	26	3.0*3.0*2.4
9	2.75*2.5*2.6	27	3.0*3.0*2.4
10	2.95*2.5*2.4	28	3.0*2.2*2.4
11	2.95*2.5*2.4	29	3.0*2.2*2.4
12	2.95*2.5*2.4	BTH & APBMT 1	3.0*3.0*2.4
14	2.95*2.5*2.4	BTH & APBMT 2	3.0*3.0*2.4
15	2.95*2.5*2.4	BTH & APBMT 3	3.0*1.6*2.4
16	3.0*2.5*2.4	BTH & APBMT 4	3.0*3.0*2.4
17	3.0*2.5*2.4	BTH & APBMT 5	1.7*2.8*2.4
18	3.0*2.5*2.4	BTH & APBMT 6	1.7*2.8*2.4

HO CHI MINH CITY TOUR - DOUBLE-DECKER BUS

SIGHTSEEING PROGRAM

Daytime Central City Route:

Operation hours: from 9:00 AM to 4:00 PM

Frequency: every 30 minutes

Passengers may hop off at any stop, unlimited time for sightseeing (Entrance fees are not included)

1. Starting point: City Opera House
2. Nguyen Hue Walking Street (free entry)
3. Nha Rong Wharf – Ticket: 20,000 VND/trip
4. Tran Hung Dao Statue / Bach Dang Wharf (free entry)
5. Ho Chi Minh City History Museum – Ticket: 30,000 VND/trip
6. War Remnants Museum – Ticket: 40,000 VND/trip
7. Pham Ngu Lao Western Street (free entry)
8. Ben Thanh Market (free entry)
9. Independence Palace – Ticket: 40,000 VND/trip
10. Central Post Office - Notre-Dame Cathedral (free entry)
11. City Opera House

Daytime China Town Route:

Operation hours: from 9:00 AM to 4:00 PM

Frequency: every 30 minutes

Passengers may hop off at any stop, unlimited time for sightseeing (Entrance fees are not included)

1. Starting point: Pham Ngu Lao Western Street – (No. 187 Pham Ngu Lao)
2. Ben Thanh Market – No. 44 Truong Dinh (free entry)
3. War Remnants Museum – Ticket: 40,000 VND/trip
4. Ho Thi Ky Flower Market – No. 2D/1 Hung Vuong, former District 10 (free entry)
5. Phuoc An Assembly Hall – No. 174 Hong Bang
6. Ong Bon Pagoda (free entry)
7. Binh Tay Market (free entry)
8. Thien Hau Pagoda (free entry)
9. Van Phat Pagoda – Station 981 Tran Hung Dao (free entry)
10. Pham Ngu Lao Western Street

Night Tour Route (~45 MINUTES):

Operation: after 4:00 PM

Frequency: every 10–15 minutes

Sightseeing only from the bus, no stops for getting off

1. Starting point: City Opera House
2. Nguyen Hue Walking Street
3. Nha Rong Wharf
4. Tran Hung Dao Statue / Bach Dang Wharf
5. Thu Thiem Bridge
6. Ba Son Bridge
7. Diamond Plaza Shopping Center
8. Turtle Lake
9. Central Post Office - Notre-Dame Cathedral
10. City Opera House

TOUR PROGRAM
MY THO - BEN TRE
1 Day - Departure: September 20th, 2025

HO CHI MINH CITY – MY THO – BEN TRE – HO CHI MINH CITY

07:30 Saigontourist bus and tour guide arrive at the meeting point.

Welcome guests and start the journey to explore the Mekong countryside of My Tho – Ben Tre with a souvenir gift.

(Breakfast at guest's own expense)

09:30 Arrival at My Tho Marina. Take a boat tour to admire Rach Mieu Bridge and floating fish farms on the Tien River.

The guide will introduce the legend of the "Four Sacred Animals": Dragon – Unicorn – Turtle – Phoenix.

09:00 – 11:30 Arrive at Thoi Son Islet:

- Visit a honeybee farm, taste local hot tea mixed with pure honey
- Enjoy seasonal fruits and Southern traditional folk music at a local home
- Paddle boat ride through Rach Xep canal under nipa palm trees

Continue the journey by motorboat to:

- Visit a coconut candy factory and local rice paper workshop
- Take a horse-cart ride along countryside paths to view fruit orchards and local life

Visit the Coconut Religion Holy Site (Phung Islet):

- Explore the Coconut Museum and crocodile farm
- Optional activities (self-paid): bottle-feeding fish, fish foot massage, river biking, rope swing, rowing boat, etc.

12:00 Lunch at Phung Islet. Free time to relax or explore the scenic riverside views.

14:00 Board the boat back to My Tho Marina. Depart for Ho Chi Minh City.

Stop en route to visit Vinh Trang Pagoda in Tien Giang.

18:00 Return to the original pick-up point.

The tour guide extends sincere thanks and farewell to guests.

HOCHIMINH CITY INFORMATION

Saigon, is the economic powerhouse and the most populous urban center in Vietnam. As the cultural and commercial heart of the southern region, it offers a vibrant blend of historical depth, modern development, and dynamic daily life.

1. Geographic Location and Population

Ho Chi Minh City is situated in southern Vietnam, in the southeast region, and lies along the Saigon River. It spans approximately 2,095 square kilometers and is bordered by Binh Duong to the north, Tay Ninh and Long An to the west, Dong Nai to the east, and the East Sea to the south.

As of 2025, the city's population is estimated at over 9.3 million people, with an urban density of around 4,300 people per square kilometer. It is a cosmopolitan city home to many ethnic groups, including Kinh (Vietnamese majority), Chinese (Hoa), Khmer, and Cham communities.

2. Climate and Weather

Ho Chi Minh City features a tropical monsoon climate with two main seasons:

- Dry season (December – April): Hot, sunny, and dry, with average temperatures from 27°C to 35°C.
- Rainy season (May – November): High humidity, frequent rains, and occasional thunderstorms, though showers are typically short.

The city receives about 1,800 mm of rainfall annually and enjoys over 2,400 hours of sunshine per year, making it favorable for tourism nearly all year round.

3. Transportation

Transportation in Ho Chi Minh City is diverse and rapidly evolving:

- Motorbikes dominate daily life; they are used by the majority of locals.
- Public buses operate on hundreds of routes across the city and to nearby provinces.
- Ride-hailing services like Grab, Gojek, and Be are widely used.
- Metro system (HCMC Metro Line 1): Currently under construction and expected to open soon, linking central districts to suburban areas.
- Tan Son Nhat International Airport, located just 6 km from the city center, connects Ho Chi Minh City with major domestic and international destinations.

4. Culture and Lifestyle

Ho Chi Minh City is a lively cultural hub, where traditional Vietnamese customs meet modern global influences. Residents are known for being energetic, business-minded, and open to change.

The city regularly hosts art exhibitions, fashion events, music festivals, and cultural performances. The traditional Southern folk opera (cải lương) and modern theater both have strong followings.

Religious diversity is visible in the presence of pagodas, churches, mosques, and Hindu temples, reflecting a long history of multiculturalism.

5. Tourism and Famous Landmarks

Ho Chi Minh City offers a rich variety of tourist destinations, from historical relics to modern skyscrapers:

Historical & Cultural Sites:

- Independence Palace (Reunification Palace): Once the presidential palace of South Vietnam, now a museum showcasing war history and politics.
- War Remnants Museum: A powerful collection of photographs and war relics from the Vietnam War.
- Notre-Dame Cathedral Basilica of Saigon: Built in the late 19th century by the French, made entirely with materials imported from France.
- Saigon Central Post Office: An architectural gem designed by Gustave Eiffel, located next to the cathedral.
- Cu Chi Tunnels: Located 70 km northwest of the city, this vast network of tunnels was used by Viet Cong soldiers during the war.
- Jade Emperor Pagoda (Phuoc Hai Temple): A well-known Taoist temple filled with statues and incense.

Modern Attractions:

- Ben Thanh Market: One of the city's oldest and most bustling markets, ideal for local products, souvenirs, and food.
- Bitexco Financial Tower & Skydeck: Offers a 360-degree panoramic view of the city skyline.
- Landmark 81: The tallest building in Vietnam, featuring luxury shopping, restaurants, and a sky observatory.
- Saigon Opera House (Municipal Theater): A French colonial building offering classical concerts and performances.
- Nguyen Hue Walking Street: A vibrant pedestrian avenue lined with shops, cafés, and art displays.

Leisure & Green Spaces:

- Tao Dan Park, Le Van Tam Park, and Vinhomes Central Park offer spaces for relaxation and exercise.
- Saigon Zoo and Botanical Gardens: One of the oldest zoos in the world, home to rare flora and fauna.

6. Nearby Destinations and Day Trips

Ho Chi Minh City is a convenient base for excursions to nearby attractions:

- Mekong Delta: Explore floating markets, traditional villages, and river cruises.
- Can Gio Mangrove Forest: A UNESCO Biosphere Reserve located just 40 km from the city.
- Vung Tau Beach: A seaside getaway just two hours from Saigon.
- Tay Ninh and Cao Dai Holy See: Visit the headquarters of Caodaism, a unique Vietnamese religion.

Conclusion

Ho Chi Minh City is more than just Vietnam's economic capital—it is a place where tradition and innovation thrive together. With its unique blend of historical richness, cultural depth, culinary excellence, and urban energy, the city promises visitors and residents alike a vibrant and unforgettable experience.

Sai Gon cuisine

5 mouthwatering dishes you should try

Steamed broken rice with grilled pork chops

When referring to Saigon, it is hard not to mention broken rice with grilled pork chops. Broken rice is very popular with the locals here because it suits many people's tastes. This dish is palatable thanks to the harmonious combination of ingredients including grilled pork chops and green vegetables. In addition, the typical fish sauce contributes to the characteristic flavor of this dish.

Saigon sticky rice

Although not a delicacy, sticky rice is an indispensable dish in Saigon's culinary culture. To the locals, sticky rice is not only delicious but also very handy for a dynamic life because the customers can easily take it away. There are various kinds of sticky rice in this city like corn sticky rice, black bean sticky rice, durian sticky rice,... Each of them has its own distinctive color and flavor which is always worth enjoying.

Banh mi - One of the most common street foods in Sai Gon

Banh mi is a typical Vietnamese breakfast food that is suitable for those who have to go to work or school early in the mornings. Inside this Saigon street food, meat is the most important ingredient which can determine whether the food is good or not. Besides, sellers can add cucumber, pickled carrot, daikon radish, scallion and cilantro according to the demands of buyers.

Pho - The most recognised Vietnamese dish around the world

Pho is one of the most typical foods that international tourists should try once. The main ingredients of this dish are linguine-shaped rice noodles called “banh pho”, a few herbs and thinly sliced beef or chicken. In addition, there are spices such as soy sauce, chili, pepper, lemon, fish sauce,... which are added depending on the taste of diners.

Noodle soup

Saigon noodle soup, or “hu tieu” in Vietnamese, is considered the quintessence of Vietnamese culinary delights which helps show the culture as well as the life of the locals. To make this dish, people use many ingredients like pork bones, pork thighs, minced shoulders, pork ribs, dried shrimp, quail eggs, white radish, onions, green onions,... If you have a chance to visit Saigon, don't forget to enjoy this flavorful dish!

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