THE 8th VIETNAM CONFERENCE ON BLOOD TRANSFUSION HEMATOLOGY

THE 8th VIETNAMESE-FRENCH OPEN CONFERENCE ON TRANSFUSION - TRANSPLANTATION - CELL THERAPY

ABSTRACT BOOK

HOCHIMINH CITY, VIETNAM

SEPTEMBER 16th – 17th, 2025

VFO-ITCT

VFO - TTCT

DETAILED PROGRAM

Nơi tổ chức: Khách sạn Sheraton		Venue: Sheraton Hotel	
Thứ 3, ngày 16 tháng 9 năm 2025		Tuesday, September 16, 2025	
THỜI GIAN Time	**CHỦ ĐỀ** Topic	**BÁO CÁO VIÊN** Speaker	**HỘI TRƯỜNG** Hall
SÁNG/ MORNING **ĐÓN TIẾP / WELCOME**			
7:45-8:00	**KHAI MẠC HỘI NGHỊ / OPENING CEREMONY**		GRAND BALLROOM
8:00-9:30	**PHIÊN TOÀN THỂ/ PLENARY SESSION** **Chủ tọa: GS.TS. Phù Chí Dũng; GS.TS. Nguyễn Tấn Bình; PGS.TS. Nguyễn Hà Thanh; GS.TS. Dominique Plantaz; PGS.TS.BS. Jacek Toporski** **Chairs: Prof. Phu Chi Dung, MD, PhD; Prof. Nguyen Tan Binh, MD, PhD; A.Prof. Nguyen Ha Thanh, MD, PhD;** **Prof. Dominique Plantaz, MD, PhD; A.Prof. Jacek Toporski, MD, PhD;** (30 phút báo cáo, bao gồm 5 phút thảo luận / 30-minute presentation, including 5 minutes for Q&A)		GRAND BALLROOM
8:00-8:30	Liệu pháp nhắm trúng đích Targeted Therapy	Phù Chí Dũng	
8:30-9:00	Theo dõi dài hạn những người bệnh đã được chữa khỏi ung thư thời thơ ấu: 3 trường hợp lâm sàng bị ung thư vú sớm sau các bệnh lý ác tính về huyết học trong giai đoạn vị thành niên. Những hiểu biết gần đây trong lĩnh vực theo dõi dài hạn (LTFU) Long-term follow-up of patients cured of childhood cancer: 3 clinical cases of early breast carcinoma after hematologic malignancies during adolescence. Recent insights in this field of long-term follow-up (LFTU)	Dominiqiue Plantaz	
9:00-9:30	Điều trị CAR-T cho bệnh nhi mắc bạch cầu lympho cấp thể tiền B tại các quốc gia Bắc Âu CAR-T Treatment for Pediatric pre-B ALL in Nordic Countries	Jacek Toporski	
9:30-9:45	**HỌP CHUYÊN GIA** **BUSINESS MEETING**		LIBAI
9:30-10:00	**GIẢI LAO** **COFFEE BREAK**		
10:00-12:00	**PHIÊN 2: VFO - TIẾNG PHÁP** **SESSION 2: VFO - FRENCH** **Chủ tọa: GS.TS. Phù Chí Dũng; GS.TS. Dominique Masson; BS. Marie Ouache Chardin** **Chairs: Prof. Phu Chi Dung, MD, PhD; Prof. Dominique Masson, MD; Marie Ouachee Chardin, MD** (20 phút báo cáo, bao gồm 5 phút thảo luận / 20-minute presentation, including 5 minutes for Q&A)		
10:00–10:20	Yếu tố di truyền trong bệnh lý huyết học: chỉ định xét nghiệm và quy trình tiếp cận bệnh nhân Prédispositions génétiques aux hémopathies : indications d'analyses et circuit patient Genetic predispositions to hematological disorders: indications for testing and patient pathway	Clémentine Legrand	
10:20–10:40	Tăng sinh lympho và u lympho do suy giảm hoặc rối loạn miễn dịch Lymphoid proliferations and lymphomas resulting from immune deficiency/dysregulation	Séverine Valmary Degano	
10:40–11:00	Xác định kiểu hình HLA độ phân giải cao nhanh: Lợi ích của công nghệ Nanopore trong ghép tế bào gốc A rapid high-resolution HLA typing: Advantages of Nanopore Technology in Stem Cell Transplantation	Dominique Masson	BALLROOM 2
11:00–11:20	Hội chứng tắc xoang gan (SOS) Sinusoidal obstruction syndrome (SOS)	Marie Ouachee Chardin	
11:20–11:40	DLI – Báo cáo các ca lâm sàng đầu tiên được thực hiện tại Bệnh viện Truyền máu Huyết học Donor Lymphocyte Infusion – A report of the first cases performed at Hematology and Blood Transfusion Hospital	Huỳnh Mỹ Trân	
11:40–12:00	Sự không đồng nhất về nhóm máu ABO ở những người hiến máu tại Trung tâm máu quốc gia, Viện Huyết học - Truyền máu Trung Ương La divergences quant au groupe ABO chez les donneurs de sang au Centre National Sanguine du Vietnam	Phan Thị Thuỳ Trang	
10:00-12:00	**PHIÊN 3: VFO- BỆNH LÝ HUYẾT HỌC 1** **SESSION 3: VFO - HEMATOLOGIC DISEASES 1** **Chủ tọa: GS. Philippe Chafanjon; TS.BS. Huỳnh Văn Mẫn; BS.CKII. Võ Thị Thanh Bình;** **Chairs: Prof. Philippe Chafanjon; Huynh Van Man, MD, PhD; Vo Thi Thanh Binh, MD, Specialist Level II;** (20 phút báo cáo, bao gồm 5 phút thảo luận / 20-minute presentation, including 5 minutes for Q&A)		
10:00–10:20	Chẩn đoán u lympho Hodgkin cổ điển và các bệnh lý giả u Hodgkin tại Việt Nam Diagnosing Classic Hodgkin Lymphoma and its Mimics in Vietnam	Vanessa Dayton	
10:20–10:40	Ghép tế bào gốc tự thân với phác đồ điều trị tủy gem/bu/mel cho bệnh Hodgkin tại Viện Huyết học – Truyền máu Trung ương ASCT with gem/bu/mel conditioning regimen for HL at the NIHBT	Võ Thị Thanh Bình	BALLROOM 3
10:40–11:00	Hiệu quả 10 năm ghép tế bào gốc máu ngoại vi tự thân ở người bệnh đa u tủy tại Bệnh viện Chợ Rẫy Ten-year outcomes of autologous peripheral blood stem cell transplantation in patients with multiple myeloma at Cho Ray Hospital	Trương Phạm Hồng Diễm	
11:00–11:20	Ứng dụng phóng xạ trong chẩn đoán và điều trị Ung thư – Huyết học Radiotheranostics in Onco-Haematology	Julien Leenhardt	
11:20–11:40	Cơ sở giải phẫu học để đảm bảo an toàn khi thực hiện chọc hút và sinh thiết tủy xương Anatomical bases for ensuring the safe performance of bone marrow aspirations and biopsies	Philippe ChaFfanjon	
12:00-12:20	**HỌP BAN CHẤP HÀNH HỘI TRUYỀN MÁU HUYẾT HỌC THÀNH PHỐ HỒ CHÍ MINH** **BOARD MEETING OF HBTHA**		BALLROOM 2
12:00-13:00	**ĂN TRƯA** **LUNCH**		

DETAILED PROGRAM

13:00-15:00	**PHIÊN 6: VFO - XÉT NGHIỆM** **SESSION 6: VFO - LABORATORY** **Chủ tọa: PGS.TS. Phan Thị Xinh; GS.BS. Chris Hogan; TS. Rishu Agarwal** **Chairs: A.Prof. Phan Thi Xinh, PhD; Prof. Chris Hogan, MD; Rishu Agarwal, PhD;** (20 phút báo cáo, bao gồm 5 phút thảo luận / 20-minute presentation, including 5 minutes for Q&A)		BALLROOM 2
13:00-13:20	Quản lý máu bệnh nhân: Chiến lược cải thiện kết quả điều trị Patient Blood Management. A Strategy to Improve Outcomes	David Roxby	
13:20-13:40	Các vấn đề đương đại trong xét nghiệm, điều trị và hỗ trợ truyền máu cho bệnh nhân mắc bệnh agglutinin lạnh hoặc bệnh agglutinin lạnh Contemporary issues in laboratory investigations, treatment and transfusion support for patients with cold agglutinins or cold agglutinin disease	Chris Hogan	
13:40-14:00	Vai trò của DNA ung thư lưu hành trong các bệnh lý ác tính huyết học Role of Circulating Tumour DNA in Haematological Malignancies	Rishu Agarwal	
14:00-14:20	Theo dõi MRD trong bệnh bạch cầu cấp MRD Monitoring in Acute Leukemias	Rishu Agarwal	
14:20-14:40	Xác định tỷ lệ tế bào người cho sau ghép trên người bệnh ghép tế bào gốc tạo máu đồng loài Determination of donor cell chimerism after allogeneic hematopoietic stem cell transplantation	Cao Sỹ Luân	
14:40-15:00	Đánh giá bệnh tồn lưu tối thiểu ở người bệnh đa u tuỷ xương bằng kĩ thuật tế bào dòng chảy Evaluation of Minimal Residual Disease in Multiple Myeloma Patients Using Flow Cytometry	Nguyễn Ngọc Sang	

13:00-15:00	**PHIÊN 7: VFO - BỆNH LÝ HUYẾT HỌC 2** **SESSION 7: VFO - HEMATOLOGIC DISEASES 2** **Chủ tọa: GS.TS. Phù Chí Dũng; GS. Sophie Park; BS. Corinne Alla** **Chairs: Prof. Phu Chi Dung, MD, PhD; Prof. Sophie Park; Corinne Alla, MD;** (20 phút báo cáo, bao gồm 5 phút thảo luận / 20-minute presentation, including 5 minutes for Q&A)		BALLROOM 3
13:00-13:20	Cập nhật trong điều trị các hội chứng rối loạn tạo máu Updates in the treatment of myelodysplastic syndromes	Sophie Park	
13:20-13:40	Tan máu chậm sau truyền máu, tan máu quá mức sau truyền máu ở trẻ em theo dõi bệnh lý huyết sắc tố bẩm sinh. Định nghĩa; Đặc điểm lâm sàng, sinh học; Quản lý điều trị và ca lâm sàng Hémolyse retardée post transfusionnelle, hyperhémolyse post transfusionnelle chez les enfants suivis pour hémoglobinopathies congénitales. Définition ; Caractéristiques cliniques, biologiques ; Prise en charge thérapeutique Cas clinique	Corinne Alla	
13:40-14:00	Hội chứng Imerslund-Grasbeck: Một biểu hiện lâm sàng không điển hình dẫn đến chẩn đoán chậm trễ kéo dài Imerslund grasbeck syndrom. An unusual clinical presentation for a long delayed diagnosis	Veronique Plantaz	
14:00-14:20	Tính khả thi và hiệu quả của hóa trị liều cao kết hợp ghép tế bào gốc tự thân cho trẻ em mắc u nguyên bào thần kinh nguy cơ cao: Báo cáo sơ bộ từ Bệnh viện Trung ương Huế Feasibility and Efficacy of High-Dose Chemotherapy and Autologous Stem Cell Rescue for Children with High Risk Neuroblastoma: A Preliminary Report from Hue Central Hospital	Đặng Thị Tâm	
14:20-14:40	Ghép tế bào gốc tạo máu đồng loài trong bệnh mucopolysaccharidosis type II Allogeneic hematopoietic stem cell transplantation in mucopolysaccharidosis type II	Phạm Thị Việt Hương	
15:00-15:30	**GIẢI LAO** **COFFEE BREAK**		

15:30-17:30	**PHIÊN 11: VFO - DỊ GHÉP** **SESSION 11: VFO - ALLOGENEIC HSCT** **Chủ tọa: TS.BS. Huỳnh Văn Mẫn; GS.TS.BS. Kazuhiro Ikegame; BS. Valerie Dubois** **Chairs: Huynh Van Man, MD, PhD; Prof. Kazuhiro Ikegame, MD, PhD; Valerie Dubois, MD;** (15 phút báo cáo, bao gồm 2 phút thảo luận / 15-minute presentation, including 2 minutes for Q&A)		BALLROOM 3
15:30-15:45	Ghép tế bào gốc đồng loại và bệnh bạch cầu kháng trị Allo-Transplantation and refractory Leukemia	Claude Bulabois	
15:45-16:00	Triển vọng và mục tiêu của ghép tế bào tạo máu không phù hợp HLA Prospects and Ambitions of HLA-Mismatched Hematopoietic Cell Transplantatio	Kazuhiro Ikegame	
16:00-16:15	Ảnh hưởng của kháng thể kháng HLA trong ghép tế bào gốc tạo máu Impact of HLA antibodies in hematopoietic stem cell transplantation	Valerie Dubois	
16:15-16:30	15 năm kinh nghiệm ghép đồng loại cho suy tủy nặng (SAA) và tan máu ban đêm kịch phát (PNH) tại Viện Huyết học – Truyền máu Trung Ương, giai đoạn 2010-2024 15 years experience in allogenic transplant for SAA/PNH at the NIHBT from 2010-2024	Võ Thị Thanh Bình	
16:30-16:45	Tính khả thi và hiệu quả của ghép tế bào gốc đồng loại cho trẻ em mắc bệnh Thalassemia: Báo cáo sơ bộ từ Bệnh viện Trung ương Huế Feasibility and Efficacy of Allogeneic Stem Cell Transplant for Children with Thalassemia: A Preliminary Report from Hue Central Hospital	Nguyễn Thị Kim Hoa	
16:45-17:00	Bất đồng HLA theo locus đặc hiệu trong ghép tế bào gốc tạo máu nửa thuận hợp sử dụng cyclophosphamide sau ghép Locus-specific HLA mismatches in haploidentical hematopoietic stem cell transplantation using post-transplant cyclophosphamide	Nguyễn Thế Quang	
17:00-17:15	**Phiên tài trợ/Sponsor session: Công ty cổ phần Medcomtech** **Giới thiệu về hệ thống HLA HISTO SPOT AB** **Introduction to the HLA HISTO SPOT AB System**	Nguyễn Minh Khôi	

DETAILED PROGRAM

17:00-17:30	**HỘI THI POSTER** **POSTER PRESENTATION SESSION**		
	HỘI ĐỒNG CHẤM THI 1 **JUDGES No1** PGS.TS. Nguyễn Thanh Bình TS.BS. Lê Phan Minh Triết BS.CKII. Châu Thúy Hà		
	HỘI ĐỒNG CHẤM THI 2 **JUDGES No2** TS.BS. Suzanne Monivong Cheanh Beaupha BS.CKII. Bùi Minh Đức BS.CKII. Huỳnh Thiện Ngôn		
	HỘI ĐỒNG CHẤM THI 3 **JUDGES No3** TS.BS. Nguyễn Thị Mai Hương TS.BS. Nguyễn Minh Tuấn TS. Cao Sỹ Luân		
	HỘI ĐỒNG CHẤM THI 4 **JUDGES No4** BS.CKII. Tôn Thất Minh Trí TS.BS. Nguyễn Hữu Chiến BS.CKI. Nguyễn Thế Quang		

Thứ 4, ngày 17 tháng 9 năm 2025		Wednesday, September 17, 2025	
THỜI GIAN Time	**CHỦ ĐỀ** Topic	**BÁO CÁO VIÊN** Speaker	**HỘI TRƯỜNG** Hall
SÁNG/ MORNING **ĐÓN TIẾP / WELCOME**			
7:45-9:45	**PHIÊN 14: VFO - LIỆU PHÁP TẾ BÀO CAR-T** **SESSION 14: VFO - CAR-T CELLS THERAPEUTIC IMPLICATIONS** **Chủ tọa: GS.TS. Phù Chí Dũng; GS. Takanori Teshima; GS.TS. Suradej Hongeng; GS.TS. Yao Ming** **Chairs: Prof. Phu Chi Dung, MD, PhD; Prof. Takanori Teshima, MD, PhD; Prof. Suradej Hongeng, MD; Prof. Yao Ming, MD** (20 phút báo cáo, bao gồm 5 phút thảo luận / 20-minute presentation, including 5 minutes for Q&A)		
7:45-8:05	Ghép tế bào gốc tạo máu và liệu pháp tế bào CAR-T tại Nhật Bản Hematopoietic stem cell transplantation and CAR-T cell therapy in Japan	Takanori Teshima	BALLROOM 2
8:05-8:25	Liệu pháp tế bào CAR-T nhắm CD19 tại Bệnh viện Đại học Quốc gia Đài Loan (NTUH) và Đài Loan CD19-CAR T cell therapy at NTUH and Taiwan	Yao Ming	
8:25-8:45	Liệu pháp CARTcell: từ lý thuyết đến thực tiễn CAR-T Cell Therapy: From Theory to Practice	Châu Thanh Thảo	
8:45-9:05	Phát triển liệu pháp CAR-T ở các quốc gia có thu nhập thấp và trung bình (LMIC) CAR-T Cell development in LMIC	Suradej Hongeng	
9:05-9:25	Điểm chăm sóc cho liệu pháp gen trong bệnh Thalassemia Point of care for gene therapy in Thalassemia	Suradej Hongeng	
9:45-10:15	**GIẢI LAO – LỄ KHAI TRƯƠNG KHU TRIỂN LÃM** **COFFEE BREAK – RIBBON CUTTING CEREMONY OF THE EXHIBITION AREA**		
10:15-12:15	**PHIÊN 18: VFO - LIỆU PHÁP TẾ BÀO/ SESSION 18: VFO - CELL THERAPY** **Chủ tọa: GS.TS. Phù Chí Dũng; GS. Akihiro Shimosaka; GS. William Hwang Ying Khee** **Chairs: Prof. Phu Chi Dung, MD, PhD; Prof. Akihiro Shimosaka; Professor. William Hwang Ying Khee, MBBS, FRCP, FAMS, MBA** (20 phút báo cáo, bao gồm 5 phút thảo luận / 20-minute presentation, including 5 minutes for Q&A)		
10:15–10:35	Liệu pháp tế bào thế hệ tiếp theo Next generation cellular therapies	William Hwang Ying Khee	BALLROOM 2
10:35–10:55	Những điểm cần lưu ý đối với liệu pháp Tế bào, Gen và Exosome Points to consider for Cell, Gene and Exosome therapy	Akihiro Shimosaka	
10:55–11:15	Tế bào gốc trung mô trong máu cuống rốn và mô nhau thai người: Tách chiết, xử lý đạt chuẩn lâm sàng và ứng dụng điều trị Mesenchymal Stem Cells in Human Umbilical Cord Blood and Placental Tissues: Isolation, Clinical-Grade Processing, and Therapeutic Applications	Tsuneo Takahashi	
11:15–11:35	Tế bào gốc trung mô trong ghép đồng loại cho trẻ em, tin tức điều trị Mesenchymal stem cells in pediatric allografts, therapeutic news	Anne Pagnier	
11:35–11:55	Phân lập, nuôi cấy tế bào gốc trung mô từ bánh nhau và dây rốn tại Bệnh viện Truyền máu Huyết học Isolation and culture of mesenchymal stem cells from placenta and umbilical cord at the Blood Transfusion Hematology Hospital	Trần Trung Dũng	
12:15-12:30	**BẾ MẠC HỘI NGHỊ VNBTH & VFO-TTCT** **CLOSING REMARKS VNBTH&VFO-TTCT**		BALLROOM 2

DETAILED PROGRAM

CHIỀU / AFTERNOON		
13:00-17:00	HỘI NGHỊ GHÉP TẾ BÀO GỐC TUỶ XƯƠNG VÀ MÁU CHÂU Á THÁI BÌNH DƯƠNG LẦN 30 THE 30TH ANNUAL CONGRESS OF ASIA-PACIFIC BLOOD AND MARROW TRANSPLANTATION GROUP (APBMT)	
TỐI / DINNER		
18:00-21:00	TRAO GIẢI BÁO CÁO VIÊN TRẺ YOUNG RESEARCHERS AWARD TRAO GIẢI BÁO CÁO VIÊN TIẾNG ANH ENGLISH PRESENTATION AWARD TRAO GIẢI HỘI THI POSTER POSTER PRESENTATION AWARD TIỆC GALA GALA WELCOME	NƠI TỔ CHỨC DỰ KIẾN / EXPECTED LOCATION: RIVERSIDE PALACE

GREETINGS FROM PRESIDENTS

Ladies and Gentlemen, dear colleagues and friends,

We gather here today in continuation of the previous Franco-Vietnamese Hemato-Oncology Congresses, bringing together international experts in this field.

On this occasion, we combine the Franco-Vietnamese Hemato-Oncology Congress with the National Hematology Day, in order to advance together in the fight against blood diseases. Our cooperation has been exemplified through the exchange of trainees between different hospitals, such as BTH Hospital, Grenoble University Hospital, and Lyon IHOPE, thereby forging strong bonds between our respective institutions.

It is therefore with great joy that we witness the expansion of these exchanges toward broader international horizons, following the pioneering collaborations between Grenoble Alpes University and PNT University, as well as between Grenoble University Hospital and Ho Chi Minh City University Hospital. These partnerships foster mutual enrichment, openness to new techniques, and the promotion of innovative and cross-border education. The sharing of knowledge, experience, and expertise paves the way for a promising future in hematology and oncology.

And what better occasion to celebrate this cooperation than our congress? It provides an ideal platform for discussing recent advances, emerging challenges, and new therapeutic directions—while also emphasizing the importance of ethical standards in our discipline.

We would like to express our sincere gratitude to our colleagues from Grenoble and Lyon, as well as to our international partners from Japan, Australia, Sweden, Taiwan, India, Germany, Singapore, and Belgium, for their invaluable participation and commitment to this common endeavor.

Finally, we wish to extend our heartfelt thanks to the organizing committee for their meticulous work and precise attention to detail. Your dedication has greatly contributed to making this congress a success.

We wish you all fruitful exchanges and inspiring working days. Let us also take this opportunity to appreciate the beauty of our host city.

Thank you for your attention!

Prof. Jean Chung Minh (Grenoble)

Prof. Phu Chi Dung (Ho Chi Minh City)

PLENARY SESSION

Hall : GRAND BALLROOM
Time: 8:00-9:30

Chairs:

Prof. Phu Chi Dung, MD, PhD; Prof. Nguyen Tan Binh, MD, PhD;
A.Prof. Nguyen Ha Thanh, MD, PhD;
Prof. Dominique Plantaz, MD, PhD;
A.Prof. Jacek Toporski, MD, PhD;

01 **Targeted Therapy in Hematologic Malignancies**

02 **Long-term follow-up of patients cured of childhood cancer: 3 clinical cases of early breast carcinoma after hematologic malignancies during adolescence. Recent insights in this field of long-term follow-up (LFTU)**

03 **CD19-CAR T cell therapy at NTUH and Taiwan**

PHU CHI DUNG

DOMINIQUE PLANIAZ

JACEK TOPORSKI

PHU CHI DUNG

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.

Targeted Therapy in Hematologic Malignancies

Objectives: This review critically examines the evolution and clinical integration of targeted therapies in hematologic malignancies, including acute and chronic leukemias (AML, ALL, CML, CLL), multiple myeloma, and both Hodgkin and non-Hodgkin lymphomas. We aim to delineate the molecular underpinnings of therapeutic targets, evaluate the impact of novel agents on patient outcomes, and identify challenges and opportunities in the context of precision hematology.

Methods: A systematic review of the literature was conducted through PubMed, Embase, and Cochrane Central, focusing on peer-reviewed publications from January 2014 to April 2024. Eligible sources included phase II/III clinical trials, meta-analyses, and consensus guidelines from major hematology societies (ASH, EHA, NCCN). Data extraction emphasized molecular mechanisms of action, efficacy endpoints (complete remission, progression-free survival, overall survival), safety profiles, and therapeutic positioning within current treatment algorithms.

Results: Targeted therapies have demonstrated paradigm-shifting efficacy across hematologic malignancies. In AML, FLT3 (midostaurin, gilteritinib) and IDH1/2 (ivosidenib, enasidenib) inhibitors have improved remission rates and survival in genomically defined subgroups. ALL has benefited from CD19- and CD22-directed immunotherapeutics (blinatumomab, inotuzumab ozogamicin), with notable gains in minimal residual disease (MRD) eradication and durable remissions. The success of BCR-ABL1 TKIs in CML persists, with third-generation agents (ponatinib, asciminib) addressing resistance mutations. In CLL, BTK inhibitors (ibrutinib, acalabrutinib) and BCL2 antagonists (venetoclax) have supplanted chemoimmunotherapy in frontline regimens. Multiple myeloma management has expanded to include CD38-targeting monoclonal antibodies (daratumumab, isatuximab), BCMA-targeted therapies (CAR-T cells, bispecific antibodies, ADCs), and next-generation immunomodulatory agents. In lymphomas, precision-directed agents such as EZH2 and PI3K inhibitors, as well as cellular immunotherapies, are redefining treatment strategies.

Conclusion: The advent of targeted therapy has redefined the therapeutic landscape of hematologic malignancies, enabling biologically rational, biomarker-driven treatment strategies with superior efficacy and manageable toxicity profiles. While these agents have yielded substantial improvements in disease control and survival, emerging resistance, limited access, and long-term safety concerns warrant continued investigation. Future directions include deeper molecular characterization, real-world validation, and rational combination regimens to overcome therapeutic resistance. Integration of advanced diagnostics and novel biologics will further accelerate the shift toward personalized, curative-intent hematologic oncology.

DOMINIQUE PLANTAZ

Professor Dominique PLANTAZ, born on July 26, 1957, is Professor Emeritus of Pediatrics at Université Grenoble Alpes (UFR de Médecine) since 2023 and currently serves as Consultant in the Immuno-Hematology and Pediatric Oncology Department at the Hôpital Couple-Enfant, CHU Grenoble-Alpes. He previously held the position of Head of the Department of Pediatrics at CHU Grenoble-Alpes from 2002 to 2022. A physician-scientist with extensive academic training in medicine, oncology, molecular biology, and pediatric specialties, Professor Plantaz holds a Doctorate in Biology and an Habilitation à Diriger les Recherches from Université Joseph Fourier.

His main clinical and research interests include neuroblastoma, leukemias, brain tumors, hematopoietic stem cell transplantation, long-term follow-up of childhood cancer survivors, and adolescent and young adult oncology. He is a long-standing member of national and international learned societies including SFCE, SIOP, and SIOPEN, and has served since 2003 as an expert on the Permanent Oncology-Hematology Committee of the French National Agency for Medicines (ANSM).

As principal or co-investigator, he has contributed to numerous academic clinical trials, notably coordinating studies within the SIOPEN consortium. With over 228 publications indexed on PubMed, Professor Plantaz remains actively engaged in both scientific research and international pediatric oncology collaboration, including with the Franco-African Pediatric Oncology Group (GFAOP).

Long-Term Follow-Up (LTFU) of Patients Cured of Childhood Cancer: Presentation of three clinical cases of secondary breast cancer after hematologic malignancies, and discussion of some recent insights.

Over the last decades, progress in the treatment of children with cancer has obtained cure rates of over 80% in high-income countries. The increased lifespan resulted in the emergence of late treatment effects (LE). LFTU became necessary and emerged as a new discipline. Cohorts of long-surviving patients provide solid epidemiological data. Monitoring recommendations have been standardized, evolving constantly. Secondary cancers pose a new life-threatening threat to fragilized patients and represent a potentially serious event. We present three cases of secondary breast cancers in young adult women included in the French LEA cohort, who were treated for leukemia or Hodgkin's disease.

Clinical Cases: The first case is a woman who was diagnosed with T-ALL at age 17 in 2000. She achieved continuous complete remission with exclusive chemotherapy. She agreed to participate in the LEA protocol. During her gynecological follow-up, she was diagnosed with breast cancer and underwent a mastectomy at age 29. Treatment included adjuvant chemotherapy, hormone therapy, but no radiotherapy. She has been in complete remission (CR) from both cancers. Oncogenetic analyses did not identify any predisposing factors. The second case is that of a woman diagnosed with a Hodgkin's disease at the age of 14. The chemoresistant disease was controlled by immunotherapy. Consolidation was achieved with high-dose chemotherapy, followed by thoracic radiotherapy. She experienced prolonged CR. As part of her gynecological follow-up, a right breast carcinoma was discovered at age 23. She received onco-senological treatment consisting of neoadjuvant chemotherapy and immunotherapy, followed by a mastectomy, without radiotherapy. Oncogenetic research is ongoing. Complete remission was noticed at the LEA consultation in 2025. The third case is that of a 16-year-old woman, diagnosed with hypo-diploidized B-ALL. She was chemosensitive, and consolidation was achieved with a Hematopoietic Stem Cell Transplantation in first CR. Treated successively from age 30 for leiomyosarcoma, melanoma, breast cancer, and bronchopulmonary cancer, she died at age 33 from tumor progression. She was diagnosed with Li-Fraumeni syndrome at the age of 31.

Discussion: Despite significant improvements in cure rates following initial treatment for paediatric cancers, survivors have a shorter life expectancy than the general population. The main causes of late mortality in pediatric cancers are progression of the initial cancer, second cancers, and cardiac and pulmonary causes. A second cancer can directly impact the quantity and quality of life. The most common second cancers are skin tumors, thyroid cancers, breast cancers, and sarcomas. Radiotherapy is the main risk factor for such an occurrence. The link between chemotherapy and increased risk of breast cancer is better known. Thanks to advances in genetics, more and more predisposing genes are being identified, making oncogenetic consultations indispensable. A second breast cancer is associated with a higher life-threatening risk than in the general population.

Conclusions: In the context of dedicated consultations, such as LEA, LFTU should enable us to provide detailed information on treatments and risks to patients who have become adults, without causing panic. These consultations allow us to assess patients' health, deliver preventive messages, establish links with adult multidisciplinary care, perform systematic screening examinations, and participate in research by including cured patients in cohorts. Ongoing research into genetic factors that predispose patients to serious sequelae will allow to provide increasingly personalized follow-up care and, one day, adapt first-line treatment to the pediatric age group.

JACEK TOPORSKI

Jacek Toporski, MD, Ph.D., is an accomplished assistant professor and a leading specialist in pediatrics, pediatric hematology and oncology, and clinical transplantation. He completed his medical education at Wroclaw Medical University in Wroclaw, Poland, and quickly established himself as a key figure in the field.

As an assistant and senior consultant in the Department of Pediatric Hematology, Oncology, and Bone Marrow in Wroclaw, Dr. Toporski played a pivotal role in launching the pediatric transplant program and co-leading the transplant team. In 2004, he advanced his career by relocating to Lund University Hospital in Lund, Sweden, where he served as the pediatric transplant program director, head of the Section of Pediatric Hematology and Oncology, and head of the Department of Pediatrics.

In 2020, Dr. Toporski joined Karolinska University Hospital in Stockholm, Sweden, where he takes on the responsibilities of a senior consultant and principal investigator for pediatric CAR T-cell clinical trials. He is instrumental in overseeing pediatric transplantation at the Center of Allogeneic Stem Cell Transplantation and Cellular Therapy (CAST).

From 2008 to 2016, Dr. Toporski served as a senior consultant in the Lund Vietnam Childhood Cancer Program (LVCCP), a pioneering initiative that aimed to transfer knowledge and train pediatric oncologists in Vietnam. In recognition of his significant contributions to the development of pediatric oncology and hematology in the country, he was awarded the "For People's Health" Medal by the Minister of Health of the Republic of Vietnam in 2015.

CAR-T Treatment for Pediatric Pre-B ALL in Nordic Countries

Jacek Toporski on behalf of the Nordic Pediatric BMT Group

Since 2018, we have seen remarkable advancements in the treatment of children with B-cell Acute Lymphoblastic Leukemia (B ALL) using Tisagenlecleucel at five leading transplant centers in the Nordic region. A comprehensive retrospective data collection conducted in the spring of 2024 allows us to share groundbreaking insights into the real-world effectiveness of this treatment, and we are excited to present this vital information.

In our presentation, we will explore the details of the patients' journeys, highlighting key factors such as the disease stage at diagnosis, previous therapies, specific indications for CAR-T treatment, bridging therapies used, and measurable residual disease (MRD) levels at the start of lymphodepletion. We will also examine important aspects of CAR-T therapy, including the toxicity profiles related to cytokine release syndrome (CRS) and immune effector cell-associated neurotoxicity syndrome (ICANS).

Additionally, we will provide compelling data on treatment responses, including evaluations at day 28 post-infusion, the best overall responses achieved, and any instances of loss of B-cell aplasia. We will reveal outcomes related to overall survival (OS) and event-free survival (EFS), showcasing the profound impact of this innovative therapy.

To conclude our presentation, we will share an in-depth follow-up of selected patients, tracing their experiences from diagnosis to their latest observations.

As the findings presented here are not yet published, we kindly ask for your discretion and request that you do not distribute any content from this presentation. Your cooperation will help us maintain the integrity of this important research. Thank you for your understanding and support.

SESSION 2: VFO - FRENCH

Hall : BALLROOM 2
Time: 10:00 - 12:00

Chairs: Prof. Phu Chi Dung, MD, PhD;
Prof. Dominique Masson, MD; Marie Ouache Chardin, MD

01	Genetic predispositions to hematological disorders: indications for testing and patient pathway
02	Lymphoid proliferations and lymphomas resulting from immune deficiency/dysregulation
03	A rapid high-resolution HLA typing: Advantages of Nanopore Technology in Stem Cell Transplantation

CLÉMENTINE LEGRAND

SÉVERINE VALMARY DEGANO

DOMINIQUE MASSON

MARINE OUACHE CHARDIN

HUYNH MY TRAN

PHAN THI THUY TRANG

CLÉMENTINE LEGRAND

Dr. ClémentIne LEGRAND, M.D., is a hospital practitioner at CHU Grenoble Alpes specializing in oncogenetics and onco-hematological cytogenetics. Since 2016, she has led multidisciplinary oncogenetics consultations across a wide range of cancer types, coordinated the PREDIR center for renal cancer predisposition, and served as Principal Investigator for local cohort studies. She is also a certified specialist in cytogenetics, responsible for validating karyotype and FISH analyses, and regularly trains residents and lab staff.

Dr. ClémentIne LEGRAND, M.D.. from Grenoble Alpes University in 2016 and holds inter-university diplomas in Oncogenetics and Onco-Hematologic Cytogenetics. An active educator, she teaches genetics at multiple levels, including medical and midwifery students, pharmacy residents, and master's students in genetic counseling. She is also a frequent invited speaker at national conferences on topics ranging from BRCA testing to novel gene discoveries.

Her research focuses on hereditary cancer syndromes, with recent publications in Genes Chromosomes Cancer, Pediatric Blood & Cancer, and American Journal of Human Genetics, among others. Through her clinical and academic contributions, Dr. [Name] plays a key role in advancing the field of hereditary cancer genetics and precision medicine.

Genetic predispositions to hematological disorders: indications for testing and patient pathway

To date, 5 to 10% of solid tumors occur in the context of hereditary predisposition. Some predispositions—particularly those linked to breast, ovarian, or gastrointestinal cancers—have been recognized for over 30 years. In contrast, the risk of genetic predispositions in hematologic malignancies has long been underestimated, especially in adult patients.

Recently identified in some cases, predispositions to hematologic malignancies are now better acknowledged by healthcare providers. Previously, the few documented cases typically involved rare familial clustering or early-onset or syndromic presentations —well-known to pediatric oncologists. The advent of next-generation sequencing (NGS), now almost systematically used in myelodysplastic syndromes and acute leukemias, has been a major turning point in improving the diagnosis of genetic predispositions in hematology.

Identifying such genetic predispositions is crucial, particularly for optimizing patient care in the context of stem cell transplantation, especially when related donors are involved. Genetic testing of HLA-matched relatives thus becomes essential and must be conducted within a rigorous framework.

In this presentation, we will discuss the diagnostic and therapeutic pathway for patients with genetic predispositions to hematologic malignancies, with a focus on family screening and clinical monitoring of at-risk relatives.

SÉVERINE VALMARY DEGANO

Séverine Valmary-Degano est Professeur des Universités - Praticien hospitalier, membre de l'équipe de recherche « Régulations épigénétiques » au sein de l'Institut pour l'Avancée des Biosciences de Grenoble (CNRS UMR 5309, Inserm U1209, Université Grenoble Alpes) et présidente du conseil scientifique de Carrefour Pathologie, congrès national annuel de la société française de pathologie.
Ancienne élève de l'école d'hématopathologie toulousaine des Professeurs Georges Delsol et Pierre Brousset, ancien chef de service au CHU de Besançon, Séverine Valmary-Degano exerce au CHU de Grenoble depuis 2018, où ses secteurs d'expertise sont principalement l'hématopathologie et la pathologie digestive.

Séverine Valmary-Degano is a University Professor and Hospital Practitioner, a member of the "Epigenetic Regulations" research team at the Grenoble Institute for Advanced Biosciences (CNRS UMR 5309, Inserm U1209, Université Grenoble Alpes), and Chair of the Scientific Council of Carrefour Pathologie, the annual national congress of the French Society of Pathology.

A former student of the Toulouse School of Hematopathology led by Professors Georges Delsol and Pierre Brousset, and former Head of Department at Besançon University Hospital, Séverine Valmary-Degano has been practicing at Grenoble University Hospital since 2018, where her areas of expertise are primarily hematopathology and digestive pathology.

Lymphoid proliferations and lymphomas resulting from immune deficiency/dysregulation

The presentation in French by Professor Séverine Valmary-Degano is entitled “News on post-transplant lymphomas”. The objectives of the presentation are (1) to address the general epidemiological and pathophysiological notions of lymphoproliferations occurring in the context of solid organ transplantation, (2) to present the new WHO2023 and ICC2022 classifications based on a few concrete cases, and finally (3) to briefly present the data recorded since 2010 within the LYMPHOPATH network, the French network for anatomo-pathological review of lymphomas.

DOMINIQUE MASSON

Dr. Dominique CHAYGNEAUD-DUPUY (née Masson) is a highly experienced medical professional from France, specializing in immunology, microbiology, and hematology. Holding an MD from Grenoble (1988), she has extensive expertise in Bacteriology, Virology, Parasitology, and Hematology, having completed multiple specialized studies between 1985 and 1987. Dominique has worked in the field of HLA (Human Leukocyte Antigen) for over 30 years, initially as an assistant in the HLA laboratory in Grenoble (1987-1997) and later as its director from 1997 to 2022. She has also been an active member of various committees, including the EFI (European Federation for Immunogenetics) and the WMDA (World Marrow Donor Association), contributing to the advancement of HLA-related practices. Dr. Masson has participated in numerous international scientific meetings and training sessions, solidifying her role as an influential figure in her field. Her dedication to continuous learning is evidenced by her participation in workshops, conferences, and scientific societies like SFHI (Société Française d'Histocompatibilité et d'Immunogénétique) and EFI.

A rapid high-resolution HLA typing: Advantages of Nanopore Technology in Stem Cell Transplantation

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

MARIE OUACHEE CHARDIN

Dr. Marie Ouachée-Chardin is a senior pediatric hematologist and clinical investigator at the Pediatric Hematology-Oncology Department (IHOPe) of the Hospices Civils de Lyon, France. With over 25 years of medical experience across France and the United States, she specializes in the treatment of childhood blood cancers, primary immunodeficiencies (PID), hemoglobinopathies, and hematopoietic stem cell transplantation (HSCT), with a growing focus on cellular and immunotherapies.

Dr. Ouachée-Chardin completed her medical training and doctoral thesis at the University of Paris (Cochin), obtaining advanced degrees in pediatrics, immunology (DEA), and immuno-allergology (DESC). She has also pursued postgraduate education in bioethics, earning a Master's degree from the École Normale Supérieure (ENS) in Lyon in 2020.

Her professional career includes key roles in leading pediatric centers such as Necker Children's Hospital and Robert Debré Hospital in Paris. She also spent time in the United States at the University of Michigan Medical Center in Ann Arbor, enriching her international clinical perspective.

Since 2017, Dr. Ouachée-Chardin has been based in Lyon, serving as a principal investigator or sub-investigator in multiple clinical trials, including Phase I–III studies in pediatric oncology, immunotherapy, and HSCT. She is certified in Good Clinical Practice (GCP, last certified in 2022), and regularly engages in training related to clinical research implementation.

Dr. Ouachée-Chardin's work is driven by a commitment to advancing translational research in pediatric hematology and improving outcomes for children with complex hematological and immunological disorders.

Sinusoidal obstruction syndrome (SOS)

Veno-Occlusive Disease (VOD)/Sinusoidal Obstruction Syndrome (SOS) is an important and life-threatening complication of Paediatric Hematopoietic Stem Cell Transplantation (HSCT) with a higher incidence (15-20%) in children than in adults.
Individual risk of VOD/SOS depends of patient risk factors (eg.age, disease, hepatic risk factor, prior exposure to ozogamicin-containing drugs, …) and HSCT-related risk factors (eg.conditioning regimen,

Early diagnosis and treatment of VOD/SOS is associated with improved clinical outcomes.
The diagnosis criteriae for VOD/SOS have evolved with two recent diagnosis criteriae : EBMT criteriae in 2018 and Cairo criteriae in 2020. We will present and compare these criteriae.

Laboratory parameters such as INR, pTT, Ferritin, Protein C which can predict the occurrence of VOD/SOS and will be analysed.

The endothelial activation and stress index (EASIX) score has been shown to be predictive of endothelial complication and was reported to be an independant predictor of VOD/SOS which can be explored as a predictor of VOD/SOS in Paediatric Allo-HSCT.

Ultrasonography and liver stiffness mesurement (LSM) by elastography can help for diagnosis and management of SOS. LSM is a reliable, non-invasive diagnostic tool, for VOD/SOS and contribute to differential diagnosis and to treatment response.

Defibrotide is an effective an treatment which is approved by FDA and EMA for severe VOD/SOS. We will present results of Defibrotide treatment and outcome under Defibrotide Erea with a special focus on datas from the DEFI France study. Outcome of severe/very severe VOD/SOS in children treated with Defibrotide in France has improved dramatically with KM-estimated overall survival (OS) at day 100 of 91% and 87% and KM-estimated OS at 12 months of 71% and 62% confirming effictiveness and safety of Defibrotide.

The diagnosis and treatment of VOD/SOS require the involvement of interdisciplinary and multidisciplinary team that include transplant physicians, nurses, pharmacists, hepatologists, nephrologists and clinical care clinicians when patient is in PICU.

Early diagnosis and treatment of VOD/SOS and involvement of interdisciplinary and multidisciplinary team may help to decrease morbidity and mortality of this severe HSCT complication.

HUYNH MY TRAN

Dr. My Tran Huynh is a clinical physician at the Stem Cell Transplantation Department of Blood Transfusion Hematology (BTH) Hospital in Ho Chi Minh City, Vietnam. She graduated from Pham Ngoc Thach University of Medicine in 2021 and has experience working in both adult and pediatric hematology. Her clinical interests include hematopoietic stem cell transplantation and post-transplant immunotherapy. Since 2024, Dr. Huynh has been involved in the implementation of donor lymphocyte infusion (DLI) at BTH Hospital and is part of the team reporting its first clinical applications in Vietnam…

Donor Lymphocyte Infusion - A report of the first cases performed at BTH hospital

Hematopoietic stem cell transplantation (HSCT) is the most effective curative treatment for hematological malignancies. However, relapse remains the major cause of failure following allogeneic HSCT. Treating relapsed hematological malignancies after an allogeneic peripheral blood stem cell transplant (allo-PBSCT) is particularly challenging. Donor lymphocyte infusion (DLI) is an immunotherapeutic strategy employed after allogeneic hematopoietic stem cell transplantation (allo-HSCT) to enhance the graft-versus-leukemia (GVL) effect and to prevent or treat disease relapse. The GVL effect makes DLI one of the most effective strategies for patients with recurrent hematological malignancies post-allo-HSCT. DLI can be applied in both HLA-matched and mismatched allo-HSCTs, using grafts from matched related donors, unrelated donors, or haploidentical donors. DLI alone can induce remission in up to 29% of patients with relapsed AML post-transplant. These remissions can be durable, particularly when DLI is administered after achieving remission with chemotherapy. Donor T lymphocytes may be used in a therapeutic, preemptive, or prophylactic setting to stimulate the GVL effect, aiming to eradicate residual disease or prevent relapse in high-risk cases. DLI has demonstrated the ability to achieve disease control in various post-transplant scenarios. However, it is not suitable for all patients, especially those with active or a history of severe graft-versus-host disease (GVHD), severe infections, complete loss of donor chimerism, or a high disease burden. The goal of DLI is to optimize the GVL effect while minimizing the risk of GVHD. Strategies to reduce toxicity include using a lower initial cell dose and applying dose escalation protocols to improve clinical outcomes. In addition, we report our experience with the first clinical cases using DLI at BTH Hospital.

PHAN THI THUY TRANG

Dr. Phan Thi Thuy Trang graduated from Hanoi Medical University in 2018 and continued to study the resident program of Hematology and Blood Transfusion from 2019 to 2021. From 2022, Dr. Trang worked as a lecturer at the Department of Hematology - Hanoi Medical University and was a clinical doctor at the ICU of the Institute of Hematology and Blood Transfusion.

Dr. Trang was interested in malignant hematological diseases, especially acute myeloid leukemia. Her research and published articles are on coagulation disorders in patients with acute myeloid leukemia, targeted therapy for elderly patients with acute myeloid leukemia.

ABO BLOOD GROUP DISCREPANCIES AMONG BLOOD DONORS IN THE NATIONAL BLOOD CENTER OF VIETNAM

Background: The National Blood Center (NBC) is the biggest blood bank in Vietnam providing the most blood unit for hospitals. During blood group typing, there are several cases with inconsistent reactions in forward grouping and those in reverse grouping. This study concentrated on the characteristics of ABO blood group discrepancies, encompassing their prevalence and the contributing factors among blood donors.

Methods: A retrospective study in 2023 at NBC included 394,475 total donors. The microplate technique on the PK7300 system initially identified the types of blood donors. All cases with ABO discrepancies were rechecked by tube and gelcard techniques. A thorough serological investigation of these cases was carried out to identify and resolve blood group discrepancies.

Results: ABO discrepancies were identified in 56 cases (0.014%). Among these, 20 cases (35.7%) displayed weaker expression of A antigen, 9 cases (16.1%) had weaker expression of B antigen, 6 cases (10.7%) had weaker expression of AB antigen, 14 cases (25%) showed low avidity for anti-A and/or anti-B antigen, and 6 cases (10.7%) revealed unexpected alloantibodies (Anti-I, Anti-M, Anti-Le^a, Anti-Le^b).

Conclusion: At NBC, the incidence of ABO discrepancy was 0.014%. A futher investigation of these cases to ensure the correct blood group is reported.

SESSION 3:
VFO - HEMATOLOGIC DISEASES 1

Hall : BALLROOM 3
Time: 10:00 - 12:00

Chairs: Prof. Philippe Chaffanjon; Huynh Van Man, MD, PhD; Vo Thi Thanh Binh, MD, Specialist Level II;

01 **Diagnosing Classic Hodgkin Lymphoma and its Mimics in Vietnam**

02 **ASCT with gem/bu/mel conditioning regimen for HL at the NIHBT**

03 **Ten-year outcomes of autologous peripheral blood stem cell transplantation in patients with multiple myeloma at Cho Ray Hospital**

04 **Radiotheranostics in Onco-Haematology**

05 **Anatomical bases for ensuring the safe performance of bone marrow aspirations and biopsies**

VANESSA DAYTON

VO THI THANH BINH

TRUONG PHAM HONG DIEM

JULIEN LEENHARDT

PHILIPPE CHAFANJON

VANESSA DAYTON

Dr. Vanessa Dayton, MD, is a highly experienced pathologist with expertise in hematopathology. She earned her medical degree from the University of Utah in 1985 after completing her B.S. in Chemical Engineering. Dr. Dayton completed her internship and residency at Hennepin County Medical Center, followed by a fellowship in Hematopathology at the University of Minnesota. She is board-certified in both Anatomic and Clinical Pathology and Hematopathology, with a career spanning over three decades.

Dr. Dayton has held academic positions at prestigious institutions such as the University of Minnesota and the University of Colorado, where she also served as an adjunct associate professor until 2023. She has a strong background in medical research, particularly in hematopathology, and is currently a researcher at the Hennepin Healthcare Research Institute.

Dr. Dayton's recent work includes peer-reviewed publications on hematology and hematopathology, with a focus on improving diagnosis in emerging economies. She is involved in international outreach, providing weekly consultations and educational support to hospitals in Vietnam. With a long-standing commitment to education, she has directed fellowship programs and contributed to professional organizations, including the American Society for Clinical Pathology and the College of American Pathologists.

Diagnosing Classic Hodgkin Lymphoma and its Mimics in Vietnam

Curative therapies require accurate diagnoses. At minimum, accurate diagnosis of a lymph node biopsy, as with any pathology specimen, requires adequate tissue that is preserved with an appropriate fixative, and that is sectioned and stained by well-trained histotechnologists in a laboratory with consistent standards for excellence. Optimally, the most accurate diagnosis can be achieved when there is a culture of cooperation between the clinicalphysician who orderedthe biopsy, the physician who performed the biopsy, the pathologist interpreting the biopsy, and other areas of the laboratory involved in the diagnostic process.Further, all members of the healthcare team must be focused on best patient outcome. In this presentation, three patient cases, one from Vietnam and two from the UnitedStates, will be presented to illustrate theseprinciples along with suggestions for improvements that could achieve more accurate diagnosis in any country.

VO THI THANH BINH

Dr. Vo Thi Thanh Binh serves as Head of Department of Hematopoietic Stem Cell Transplantation at Hanoi National Institute of Hematology and Blood Transfusion (NIHBT), Vietnam.

In 1997, she graduated from Hanoi Medical University and completed a 3-year residency in hematology at Hanoi National Institute of Hematology and Blood Transfusion (NIHBT). In 2000, she officially joined the staff of NIHBT and in 2007, she was appointed Head of Department of Hematopoietic Stem Cell Transplantation. In the same year, she was trained in bone marrow transplantation for 3 months at the National Heart, Lung, and Blood Institute (NHLBI) at the National Institutes of Health (NIH), USA. She also undertook training on cord blood transplant techniques at the Japanese Red Cross Nagoya First Hospital, Japan in 2013 and got her knowledge deepened in lymphoma treatment through short courses at the Mayo Clinic in 2014 and 2015.

Professionally, Dr. Vo Binh specializes in the treatment of diseases such as aplastic anemia, leukemia, myeloma, and lymphoma. She has a particular interest in autologous and allogeneic hematopoietic stem cell transplantation for both adult and pediatric patients.

During her career to date at NIHBT, she has performed more than 690 hematopoietic stem cell transplantation cases. She 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. Vo Binh is a respected member of both the Vietnamese Hematology and Blood Transfusion Association and the International Myeloma Foundation's Asian Myeloma Network (AMN).

GEM/BU/MEL Regimen in Autologous Stem Cell Transplantation for Hodgkin Lymphoma at the National Institute of Hematology and Blood Transfusion

Abstract: We conducted a study to evaluate the efficacy and safety of the gemcitabine, busulfan, and melphalan (Gem/Bu/Mel) conditioning regimen followed by autologous stem cell transplantation (ASCT) in patients with primary refractory or poor-risk relapsed Hodgkin lymphoma (HL).

Objective: To assess the clinical effectiveness and safety profile of the Gem/Bu/Mel regimen for ASCT in relapsed/refractory HL patients, including those with extranodal disease or bulky relapse.

Methods: Eighteen patients with relapsed/refractory HL underwent ASCT using the Gem/Bu/Mel conditioning regimen at the Stem Cell Transplantation Department, National Institute of Hematology and Blood Transfusion (NIHBT), from 2018 to 2024. Patient characteristics: 77.8% were relapsed HL and 22.2% were refractory HL. Disease profile: 44.4% had extranodal disease and 44.2% had bulky relapse. Prior therapy: 33.3% of patients had received PD-1 inhibitors or brentuximab vedotin (BV) before transplant.

Results: Engraftment: 100% achieved hematopoietic recovery. Median neutrophil recovery: 9.0 ± 1.0 days Median platelet recovery: 11.3 ± 3.3 days. At 2 years, overall survival (OS) was 100%, and disease-free survival (DFS) was 78.6%. Grade 2–3 mucositis occurred in 66.6% of patients. Transplant-related mortality (TRM): 0%.

Conclusion: Our initial experience demonstrates that the Gem/Bu/Mel conditioning regimen is an effective and well-tolerated option for ASCT in patients with refractory or poor-risk relapsed Hodgkin lymphoma, including those with extranodal or bulky disease.

TRUONG PHAM HONG DIEM

Dr. Truong Pham Hong Diem completed her residency in hematology at the University of Medicine and Pharmacy, Ho Chi Minh City, in 2019 and has since been a member of the Hematopoietic Stem Cell Transplantation Unit at Cho Ray Hospital, Ho Chi Minh City, Vietnam. In 2023, she further enhanced her expertise by completing a training program at the Bone Marrow Transplant Center, Taichung Veterans General Hospital, Taiwan. Her clinical practice and research primarily focus on hematopoietic stem cell transplantation, with particular interest in optimizing hematopoietic stem cell transplantation protocols and advancing supportive care strategies. Dr. Diem has authored and co-authored 10 publications and has delivered scientific presentations at national conferences.

Ten-year outcomes of autologous peripheral blood stem cell transplantation in patients with multiple myeloma at Cho Ray Hospital

Multiple myeloma (MM) is a malignant plasma cell neoplasm characterized by clonal immunoglobulin-secreting cells in the bone marrow. This leads to extensive osteolytic bone destruction and end-organ damage, manifesting as anemia, hypercalcemia, renal failure and immune dysfunction. MM accounts for roughly 10% of all hematologic cancers.

Historically, MM was uniformly fatal, but patient survival has improved substantially in the past two decades. Advances in diagnostic methods, risk stratification and supportive care – combined with a deeper understanding of MM biology – have contributed to longer survival. In particular, the introduction of novel therapies (immunomodulatory drugs such as thalidomide/lenalidomide, proteasome inhibitors like bortezomib, and monoclonal antibodies such as daratumumab) has dramatically improved disease control. Despite these advances, multiple myeloma is still considered incurable for most patients. Nearly all cases eventually relapse.

High-dose chemotherapy with autologous peripheral blood stem-cell transplantation (APBSCT) remains the standard post-induction therapy for eligible MM patients. Current guidelines recommend HDT-ASCT for transplant-eligible patients (typically those up to ~65–70 years of age who are fit for intensive therapy) after achieving at least a partial response to initial treatment

In Vietnam, major hematology centers (including Cho Ray Hospital) have implemented APBSCT programs for MM, but published outcome data remain limited. This study was conducted to assess long-term survival (overall and progression-free), response rates and transplant-related complications. Our goal was to better characterize patients with prolonged remission and explore factors that might predict long-term success. These data will provide insights into the real-world efficacy of APBSCT in Vietnamese MM patients in the modern therapeutic era.

JULIEN LEENHARDT

Dr. Julien Leenhardt is a highly specialized MCU-PH in Radiopharmacy, currently working at CHU Grenoble Alpes (CHUGA) within the Department of Radiopharmacy and Nuclear Medicine. They hold a doctorate in the field of Innovative Therapies from the University of Grenoble Alpes (UGA), with a focus on the synthesis and radiolabeling of novel chelators for theranostic applications. Their research is primarily conducted in collaboration with the UMR Inserm 1039, Laboratory of Biocliniques Radiopharmaceuticals (LRB), where they contribute to the development of clinical projects and innovative radiopharmaceuticals, including involvement in clinical trials like ATHENA.

Dr. Julien Leenhardt has extensive clinical and hospital experience, having worked in various roles at CHUGA, including Assistant Hospitalo-Universitaire and now MCU-PH in Radiopharmacy and MTI. They are actively involved in both the research and practical application of radiopharmaceuticals, including developments in radiotherapy and targeted radionuclide therapy for prostate cancer patients. As an educator, they teach at the UGA Faculty of Pharmacy, supervising both undergraduate and graduate students, and contribute to various teaching programs in nuclear engineering and health sciences.

Their significant contributions to research have been published in leading international journals, and they are recognized for their expertise in radiopharmaceuticals, clinical trials, and innovative therapies. Additionally, Dr. Julien Leenhardt has participated in the development of clinical protocols and the implementation of cutting-edge therapies, such as CAR-T cell treatments, at CHUGA. Their work bridges academia, clinical research, and innovative therapeutics, making them a key figure in the advancement of nuclear medicine and radiopharmacy.

Radiotheranostics in Onco-Haematology

The integration of radiopharmaceuticals in hematology has led to significant advances in the diagnosis and treatment of blood disorders, particularly hematological cancers such as lymphoma, leukemia and myeloma. Recently, radiotheranostics - a combination of diagnostic and therapeutic radiopharmaceuticals - has emerged as a major breakthrough in nuclear medicine, offering a promising solution for precise and personalized cancer treatment. This concept is based on the use of radiopharmaceuticals that not only precisely localize malignant cells using nuclear imaging techniques, but also deliver targeted treatments (known as targeted radionuclide therapy), directly to tumor sites using the same molecule, simply by substituting the radionuclide used. This presentation will explore past and current applications of radiopharmaceuticals in onco-haematology, focusing in particular on their therapeutic potential, with the example of radiolabeled monoclonal antibodies (radioimmunotherapy). The discussion will also cover ongoing clinical trials and research initiatives, offering a preview of the future use of radiotheranostics in the field.

PHILIPPE CHAFFANJON

Dr. Julien Leenhardt is a highly specialized MCU-PH in Radiopharmacy, currently working at CHU Grenoble Alpes (CHUGA) within the Department of Radiopharmacy and Nuclear Medicine. They hold a doctorate in the field of Innovative Therapies from the University of Grenoble Alpes (UGA), with a focus on the synthesis and radiolabeling of novel chelators for theranostic applications. Their research is primarily conducted in collaboration with the UMR Inserm 1039, Laboratory of Biocliniques Radiopharmaceuticals (LRB), where they contribute to the development of clinical projects and innovative radiopharmaceuticals, including involvement in clinical trials like ATHENA.

Dr. Julien Leenhardt has extensive clinical and hospital experience, having worked in various roles at CHUGA, including Assistant Hospitalo-Universitaire and now MCU-PH in Radiopharmacy and MTI. They are actively involved in both the research and practical application of radiopharmaceuticals, including developments in radiotherapy and targeted radionuclide therapy for prostate cancer patients. As an educator, they teach at the UGA Faculty of Pharmacy, supervising both undergraduate and graduate students, and contribute to various teaching programs in nuclear engineering and health sciences.

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Bone marrow aspiration
a short video with anatomical basis for a best practice guide

Sternal bone marrow aspiration is a frequent medical procedure for the diagnosis of hematological, oncological and infectious diseases or for medical therapy monitoring. As an invasive procedure, complications are described in literature. They are rare but the major ones are caused by improper techniques or instrument usage. The fatal complications are due to ascendant aorta injury or the right ventricle one. Sternal aspiration should only be performed by an experienced operator who is aware of the anatomical basis of this procedure. We propose a short video sequence to present the benchmarks and the limits of the technique to medical students and young fellows. In this video, the students can follow a complete dissection of the mediastinum from the skin to the pericardium. The goals are to reassure a novice doctor and make his actions safer, showing the invisible deep structures of this percutaneous gesture.

SESSION 6: VFO - LABORATORY

Hall : BALLROOM 2
Time: 13:00 - 15:00

Chairs: A.Prof. Phan Thi Xinh, PhD; Prof. Chris Hogan, MD; Rishu Agarwal, PhD;

01 Patient Blood Management. A Strategy to Improve Outcomes

02 Contemporary issues of investigation and management of patients with cold agglutinins

03 The Emerging Role of Circulating Tumour DNA in Haematological Malignancies: Technical Advances and Clinical Applications in Lymphomas

04 The Role of Molecular and NGS-Based Minimal Residual Disease Testing in Acute Leukaemias

05 Determination of donor cell chimerism after allogeneic hematopoietic stem cell transplantation

06 Evaluation of Minimal Residual Disease in Multiple Myeloma Patients Using Flow Cytometry

DAVID ROXBY

CHIRS HOGAN

RISHU AGARWAL

RISHU AGARWAL

CAO SY LUAN

NGUYEN NGOC SANG

DAVID ROXBY

Professor David Roxby is a distinguished academic and clinical expert in Molecular Medicine, Haematology, and Transfusion Medicine, currently serving as a Professor at Flinders University. He holds extensive qualifications, including a PhD from Flinders University and multiple professional certifications, such as Fellowship of the Royal College of Pathologists of Australasia (RCPA).

With over 40 years of experience, he has held numerous influential roles, including Project Manager for the Non-Invasive Prenatal RHD Testing Project, Clinical Scientist and Scientific Consultant at the Australian Red Cross Lifeblood, and Head of the SA Pathology Transfusion Service. In academia, Professor Roxby has made significant contributions as a postgraduate supervisor, examiner, and lecturer, with ongoing involvement in teaching and curriculum development.

His research interests cover transfusion practices, patient blood management, and transfusion medicine, particularly in emergency care, cardiac surgery, and elderly populations. He has been awarded over $6 million in research funding and published widely, including over 50 peer-reviewed papers. Professor Roxby is also deeply involved in global health initiatives, contributing to overseas aid projects and serving on various national and international committees.

Recognized for his contributions, he has received numerous awards, including the RCPA Foundation Pathology Education Outreach Fellowship and the Ruth Sanger Award for his work in blood transfusion science.

Patient Blood Management. A Strategy to Improve Patient Outcomes

D Roxby. Flinders University, College of Medicine and Public Health, Adelaide, South Australia

Patient Blood Management (PBM) is a multi-disciplinary patient safety initiative designed to provide safe, optimal and efficient use of blood components and blood related resources through timely application of evidence-based medical and surgical concepts. These concepts are designed to maintain haemoglobin concentration, optimise haemostasis and minimise blood loss to reduce or eliminate the need for a blood transfusion and to improve patient outcomes.

PBM forms an important part of health systems that ensure safe blood management and requires:

- Systems are in place to ensure the safe, appropriate, efficient, and effective use of blood and blood products
- Clinicians and other staff to follow these systems
- Risks are identified and strategies are used to conserve a patient's own blood
- Blood and blood products that patients receive are safe and appropriate

Through an individualised, multidisciplinary approach to the management of a patient’s blood, through assessment and development of a management plan contributes to:

- Identifying risk factors and patients who are at risk of needing a transfusion
- Optimising a patient’s own blood volume and red cell mass by identifying and addressing clinical conditions that might lead to a blood transfusion such as anaemia or iron deficiency
- Minimising diagnostic, therapeutic, or intraoperative blood loss through minimally invasive surgical techniques and medications that reduce blood loss
- Increasing an individual’s tolerance toward anaemia with appropriate management and use of accurate blood transfusion triggers

With appropriate approach to PBM, patient outcomes are improved through:

- Reducing the risk of transfusion-associated complications
- Focusing on conserving the patient's own blood

CHRIS HOGAN

Dr. Christopher John Hogan, Date of Birth: October 22, 1956 (Melbourne, Australia)

Chris is a hematologist and transfusion medicine specialist, as well as the Medical Director of the Reference Testing Service at the Australian Red Cross Blood Service.

Previously, Chris served as the Chief Medical Officer at the Australian National Blood Authority. His responsibilities included overseeing the national blood supply, ensuring the safety and quality of blood bags, and developing national standards for blood transfusion practices.

Chris and his colleagues founded the Serious Transfusion Incident Reporting (STIR) system. He was the past chairman and remains a member of the advisory board of the National Blood Transfusion Safety Committee.

Chris is also a part-time hematologist at the Royal Melbourne Hospital, where he provides clinical and laboratory advice. Here, he continues to pursue his passion, particularly in areas like large-volume blood transfusion, blood group serology, ABO-incompatible blood transfusions in organ transplantation, and teaching.

He is a senior invited lecturer at the Department of Medicine, Dentistry, and Health Sciences at the University of Melbourne, where he was awarded the "Teacher of the Year" by the Faculty of Medicine.

Dr. Hogan is a member of several expert clinical reference groups involved in the development of blood transfusion management guidelines for patients. He is currently a NATA-accredited Hematology and Transfusion Medicine Assessor, an IANZ Evaluator, and an expert examiner in Hematology at the University of Pathology.

Contemporary issues of investigation and management of patients with cold agglutinins

Cold agglutinins may be an idiopathic phenomenon in the setting of cold haemagglutinin disease, or be provoked as secondary findings in patients with acute viral infections, connective tissue disorders, non-Hodgkin lymphomas, and triggered by some medications.

In idiopathic cold haemagglutinin disease there is often haemolysis, together with acral and other vascular manifestations relating to red cell agglutination and altered blood flow viscosity and the potential for thrombosis.

Cold agglutinins, which are usual of IgM isotype, may interfere with a range of other laboratory tests.

The most important laboratory investigation in patients with cold reacting antibodies is the determination of the thermal amplitude of the cold agglutinins. The height of the thermal amplitude will predict both the likelihood or not of in vivo haemolysis, and also may have implications in a number of specialised surgical settings, where significant hypothermic anaesthesia is induced.

Conventional treatments include immunosuppression with rituximab, bendamustine and cyclophosphamide. Steroids have a place especially when there is a co-present warm IgG anti-red cell antibody. Newer contemporary treatment options include a range of differently acting complement pathway inhibitors, and other agents. These include eculizumab, ravulizumab, iptacopan, pegcetacoplan and ibrutinib.CAR-T cell therapy is even now a further treatment modality.

These various issues will be reviewed and discussed.

RISHU AGARWAL

Dr. Rishu Agarwal is a Consultant Haematologist and Lead Molecular Pathologist at Austin Pathology, with an honorary Senior Research Fellow appointment at the Peter MacCallum Cancer Centre and the University of Melbourne. Since joining Austin Pathology in 2017, Dr. Agarwal has led the establishment and development of a highly advanced Molecular Diagnostics Service, incorporating next-generation sequencing (NGS) technologies for enhanced diagnostic and prognostic care in haematological malignancies.

Dr. Agarwal pioneered the implementation of NGS-based minimal residual disease (MRD) testing for Acute Lymphoblastic Leukemia (ALL), positioning the laboratory among the first in Australia to offer this cutting-edge service. His expertise spans developing diagnostic panels for myeloid and lymphoid malignancies, with significant contributions to the research and clinical understanding of cancer genomics, particularly in resistance mechanisms to targeted therapies like ibrutinib and venetoclax.

Holding a PhD in Translational Science from the University of Melbourne and Peter MacCallum Cancer Centre, his research focuses on genomic biomarkers and translational studies, with high-impact publications in Nature Medicine and The New England Journal of Medicine. Dr. Agarwal is a key contributor to several ongoing research projects and clinical trials in cancer genomics and molecular monitoring.

In addition to his clinical and research roles, Dr. Agarwal is dedicated to training the next generation of haematologists and molecular pathologists, serving as an examiner for the RCPA Fellowship Examination and NPAAC Certification in Molecular Haematology. He also actively contributes to quality assurance in pathology through his role as a certified NATA assessor.

The Emerging Role of Circulating Tumour DNA in Haematological Malignancies: Technical Advances and Clinical Applications in Lymphomas

Circulating tumour DNA (ctDNA) analysis has rapidly evolved as a sensitive, minimally invasive biomarker for disease assessment across haematological malignancies. By leveraging tumourspecific genetic and epigenetic alterations detectable in plasma, ctDNA enables real-time monitoring of tumour dynamics and offers a promising alternative or complement to conventional tissue biopsies and imaging modalities.

In lymphomas, particularly diffuse large B-cell lymphoma (DLBCL), ctDNA analysis has demonstrated robust utility for measurable residual disease (MRD) detection, early relapse prediction, and treatment response assessment. Quantitative reductions in ctDNA levels during therapy strongly correlate with metabolic imaging responses and long-term outcomes. Emerging ctDNA based technologies can achieve sensitivities as low as 10^{-6}, enabling detection of very low disease burdens.

Technical advancements in error-corrected next-generation sequencing (NGS), digital PCR, and hybrid-capture-based approaches have significantly improved the analytical sensitivity and specificity of ctDNA assays. These methods allow tracking of patient-specific clonal rearrangements, somatic mutations, and copy number alterations. Furthermore, ctDNA profiling facilitates the detection of resistance-associated mutations, providing actionable information for therapeutic adaptation.

Despite its promise, ctDNA analysis faces several technical and practical limitations. Challenges include assay harmonisation, pre-analytical variability (such as plasma processing time and storage conditions), and low ctDNA shedding in certain disease subtypes or anatomical compartments. Furthermore, distinguishing true tumour-derived alterations from clonal hematopoiesis-related mutations (CHIP) remains critical to avoid false-positive interpretations. Proper sample handling and long-term storage protocols are essential to maintain DNA integrity and ensure assay reproducibility. Ongoing efforts toward assay standardisation, large-scale validation studies, and harmonised guidelines are vital for broader clinical adoption.

This presentation will provide an overview of current technical approaches, biological underpinnings, and clinical applications of ctDNA testing in haematological malignancies, with an emphasis on lymphomas. It will also discuss technical limitations, the need for ongoing validation, and considerations for optimal sample collection and storage.

RISHU AGARWAL

Dr. Rishu Agarwal is a Consultant Haematologist and Lead Molecular Pathologist at Austin Pathology, with an honorary Senior Research Fellow appointment at the Peter MacCallum Cancer Centre and the University of Melbourne. Since joining Austin Pathology in 2017, Dr. Agarwal has led the establishment and development of a highly advanced Molecular Diagnostics Service, incorporating next-generation sequencing (NGS) technologies for enhanced diagnostic and prognostic care in haematological malignancies.

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The Role of Molecular and NGS-Based Minimal Residual Disease Testing in Acute Leukaemias

Minimal residual disease (MRD) testing has revolutionised the management of acute leukaemias by enabling highly sensitive detection of leukaemic cells that persist below the threshold of conventional morphological assessment. Whilst flow cytometry remains widely used, molecular and nextgeneration sequencing (NGS)-based MRD assays have emerged as powerful complementary tools, offering deeper sensitivity and the ability to track patient-specific genomic aberrations.

In acute lymphoblastic leukemia (ALL), molecular MRD assessment using patient-specific immunoglobulin (IGH/TCR) rearrangements and gene fusion transcripts (e.g., BCR-ABL1) has become integral to risk-adapted treatment algorithms. Achieving molecular MRD negativity is strongly associated with improved relapse-free and overall survival and guides key decisions regarding therapy intensification and the need for allogeneic stem cell transplantation.

In acute myeloid leukaemia (AML), molecular MRD monitoring via quantitative PCR of fusion genes or mutated transcripts provides robust prognostic information. Emerging NGS-based assays enable comprehensive detection of residual leukaemic clones with enhanced sensitivity and allow monitoring of clonal evolution, including the emergence of resistant subclones.

Despite the transformative potential of these assays, molecular and NGS-based MRD approaches face challenges, including assay standardisation, interpretation of low-level mutations, and integration into routine clinical workflows. Guidelines such as those from the European LeukemiaNet (ELN) and other expert consensus panels have provided frameworks to guide interpretation and clinical application of MRD results.

Incorporating molecular and NGS-based MRD results into clinical practice enables more precise risk stratification, identification of patients who may benefit from pre-emptive therapeutic interventions, and the potential for treatment de-escalation in molecularly defined low-risk cohorts.

This presentation will highlight the current landscape, technical advancements, and evolving clinical impact of molecular and NGS-based MRD testing in AML and ALL, illustrating how these tools are reshaping personalised leukaemia management and improving patient outcomes

CAO SY LUAN

Dr. Cao Sy Luan possesses a PhD in Medical Sciences obtained from the University of Tsukuba in Japan. He is an expert in molecular genetics, with a substantial focus on the application of molecular genetics to the diagnosis, prognosis, and monitoring of treatment responses for hematological malignancies at the Blood Transfusion Hematology Hospital (BTH). His research has led to the establishment of several novel molecular tests at BTH, aimed at improving diagnostic accuracy, prognostic assessment, and treatment monitoring. In addition to his work in molecular genetics, Dr. Luan specializes in stem cell research, particularly hematopoietic stem cells (HSCs) and hematopoietic stem cells niche, including mesenchymal stem cells (MSCs), pericytes, and Schwann cells. He is also proficient in gene and cell therapies, encompassing gene editing, stem cell therapy, and cellular immunotherapy, such as MSCs, natural killer (NK) cells, CAR-T cells, and CAR-NK cells. Dr. Luan has authored and co-authored over 20 scientific publications and has played a pivotal role in more than 20 scientific projects. Furthermore, he has actively participated in more than 20 national and international conferences, where he has presented his findings, thereby contributing significantly to the advancement of knowledge in his field.

Determination of donor cell chimerism after allogeneic hematopoietic stem cell transplantation

Cao Sy Luan[1], Vo Lam Hoang Vu[1,2], Doan Thi Tuyet Thu[1], Pham Thi My Hanh[1], Phu Chi Dung[1], Nguyen Tan Binh[1], Phan Thi Xinh[1,2]

[1] Blood Transfusion and Hematology Hospital, Ho Chi Minh City, Vietnam.
[2] The University of Medicine and Pharmacy at Ho Chi Minh City, Vietnam.

Objective: To determine the T-cell chimerism after transplantation in allogeneic hemopoietic stem cell transplant patients in the Blood Transfusion and Hematology Hospital (BTH). Subjects and Methods: A cross-sectional descriptive study was conducted on 16 cases undergoing allogeneic hematopoietic stem cell transplantation at BTH, and a test to determine the ratio of donor T cell chimerism (T-cell chimerism - CMR-T) from December 2022 to December 2024. Multiplex F-PCR was performed to examine 24 STR markers of the donor and patient to determine the CMR and CMR-T rates at different times after hematopoietic stem cell transplantation. Results: The analysis of 16 patients who underwent hematopoietic stem cell transplant, diagnosed with malignant hematological diseases, showed that the similarity or difference between CMR and CMR-T ratio may vary depending on the time of post-transplant chimerism assessment. Specifically, at N28, 3 out of 4 patients had similarities in the results between CMR and CMR-T ratio, all achieved complete chimerism, and only one patient had a difference in the chimerism rate between CMR (92.54%) and CMR-T (95.46%). At N60, half of the cases had concordance between CMR and CMR-T, both achieving complete chimerism, while the remaining half had concordance between CMR and CMR-T, but mixed chimerism. At N100, 4/5 cases had concordance between CMR and CMR-T, while the remaining patient had mixed chimerism, with rates of 83.6% and 12.96%, respectively. In addition, one case was evaluated at N160, showing concordance between CMR and CMR-T, with mixed chimerism, with rates of 75.69% and 25.97%, respectively. Conclusions: The study's results show that the similarities or differences between CMR and CMR-T ratio may depend on the time of post-transplant chimerism assessment. The results of CMR-T assessment at different times also show that CMR-T examination is necessary to accurately evaluation the status of graft growth, thereby helping clinicians make appropriate treatment decisions for patients.

Keywords: chimerism (CMR), T-cell chimerism (CMR-T), Multiplex F-PCR

NGUYEN NGOC SANG

Dr. Nguyen Ngoc Sang graduated from the Pham Ngoc Thach University of Medicine in 2016. After graduation, Dr. Sang began working at the Blood Transfusion Hematology (BTH) hospital. She completed her Specialist Level 1 training in Hematology in 2021. Since 2022, she has served as the Vice Head of the Department of Immunology.

Dr. Sang's main area of expertise is flow cytometry. Since 2018, she has been actively involved in various research projects related to this field. Notably, she participated in a provincial-level scientific research project funded by the Department of Science and Technology, focusing on minimal residual disease assessment in multiple myeloma. In 2024, Dr. Sang completed the CAR-T Cell Therapy Medical Training Program at the Department of Hematology & Oncology, Hualien Tzu Chi Hospital, Taiwan.

Evaluation of Minimal Residual Disease in Multiple Myeloma Patients Using Flow Cytometry

Multiple myeloma (MM) is a hematologic malignancy in which treatment outcomes can be significantly improved through accurate risk stratification and the selection of therapeutic regimens tailored to prognostic subgroups. Minimal residual disease (MRD) is a critical factor in evaluating treatment response and plays an essential role in monitoring for early relapse, thereby enabling clinicians to make timely and appropriate treatment decisions. Among the methods used to assess MRD in MM, flow cytometry based on the detection of specific immunophenotypic markers of malignant plasma cells and standardized by the EuroFlow consortium offers high sensitivity and precision.

Our study demonstrated that the treatment response prior to maintenance therapy was higher in the transplant group compared to the non-transplant group when evaluating MRD by flow cytometry. Moreover, there was a strong correlation between MRD assessed by flow cytometry and MRD based on IG gene rearrangement analysis at the post-induction and pre-maintenance phases. Based on these findings, we recommend the combined use of flow cytometry for detecting malignant plasma cell markers and molecular techniques for identifying IG gene rearrangements. This integrated approach would enhance the ability to monitor MM patients using both immunophenotypic and molecular markers, thereby enabling clinicians to more accurately assess treatment response at various time points such as post-induction, post-transplantation, and pre-maintenance and to make timely and effective therapeutic decisions.

SESSION 7:
VFO - HEMATOLOGIC DISEASES 2

Hall : BALLROOM 3
Time: 13:00 - 15:00

Chairs: Prof. Phu Chi Dung, MD, PhD; Prof. Sophie Park; Corinne Alla, MD;

01 **Updates in the treatment of myelodysplastic syndromes**

02 **Delayed Hemolytic Transfusion Reaction (DHTR) and Hyperhemolysis in Children with Congenital Hemoglobinopathies**

03 **Imerslund-Gräsbeck syndrome : a rare, long-delayed hematological diagnosis through a new-approach : what is icono-diagnosis ? Structured Abstract.**

04 **Feasibility and Efficacy of High-Dose Chemotherapy and Autologous Stem Cell Rescue for Children with High Risk Neuroblastoma at Hue Central Hospital: A five years report**

05 **Allogeneic hematopoietic stem cell transplantation in mucopolysaccharidosis type II**

SOPHIE PARK

CORINNE ALLA

VERONIQUE PLANTAZ

DANG THI TAM

PHAM THI VIET HUONG

SOPHIE PARK

Professor Sophie Park is Head of the Department of Hematology in Grenoble Alpes Hospital, France, where she became Professor of Hematology in 2013. After obtaining her medical degree, she became a fellow and then Associate Professor at Cochin Hospital, Paris, where she became board certified in 2003. She did a Postdoctoral Fellowship in Dominique Bonnet's lab at Cancer Research UK, London, working on PDX murine models of AML.

Prof. Park's research focuses on MDS and her clinical practice focuses on elderly acute leukemias and MDS. Prof. Park has been Chief Investigator in numerous Phase II/III studies of ESAs and iron overload in lower-risk MDS. She also leads translational research at the Institute for Advanced Biosciences, Grenoble, focusing on the role of the niche microenvironment and epitranscriptomic in MDS pathophysiology, and has supervised numerous Masters and PhD students.

Prof. Park has delivered lectures and symposia at local, national, and international conferences and has authored book chapters, and articles published in the New England Journal of Medicine, Journal of Clinical Oncology, and Blood. She is a scientific board member for the Groupe Francophone des Myélodysplasies, of different scientific advisory boards in France and an advisory board member for drug manufacturers including Novartis, BMS, Pfizer.

Updates in the treatment of myelodysplastic syndromes

Myelodysplastic syndromes (MDS) are a very heterogeneous group of oligoclonal hematological disorders. Treatment options are classified and defined by prognostic risk scores such as the Revised international prognostic scoring system (IPSS-R) and, more recently, the molecular IPSS (IPSS-M).

In lower-risk MDS, the goal of treatment is to correct cytopenia and their consequences, with the aim to maintain or improve quality of life. In addition to red blood cell transfusions, erythropoiesis-stimulating agents (ESAs) are the historical first-line treatment for anemia. New molecules such as erythropoiesis maturing agents or telomerase inhibitors can be used in ESA refractory patients.

For higher risk MDS, the goal is to avoid the evolution to acute myeloid leukemia. Allogeneic transplantation is the gold standard for patients eligible for this intensive treatment. The alternatives are hypomethylating agents +/- targeted therapies.

In this talk, we will focus on current and future therapeutic options for MDS based on new classifications.

CORINNE ALLA

Dr. Corinne Armari-Alla is a pediatric specialist in immunology, hematology, and oncology at the University Pediatric Clinic, Couple-Enfant Hospital, Grenoble University Hospital (CHU), France. She has served as a Hospital Practitioner in Pediatric Onco-Hematology Day Hospital since 1997 and is the current Head of the Pediatric Immuno-Hemato-Oncology Department at CHU Grenoble.

She holds a Doctorate in Medicine (1993), a Pediatric Specialization (1994), and numerous postgraduate qualifications, including Pediatric Oncology (1997), Pain Management (2000), Sickle Cell Disease (2012), Therapeutic Education (2013), and Red Blood Cell Disorders (2019).

Dr. Armari-Alla has been actively involved in clinical research for over two decades, acting as principal or co-investigator in numerous academic and industrial trials (phases I–IV), biological studies, and international cohorts. Her research areas include childhood cancers, sickle cell disease, immunodeficiencies, and transplantation.

She coordinates the pediatric center of excellence for sickle cell disease within the French MCGR network and has contributed to many national and international studies and clinical protocols, such as INTERFANT, SIOPEL, EORTC, SFGM-TC, HR-NBL, LCH studies, and others covering a wide range of pediatric malignancies and rare diseases. Her publication record includes significant contributions to high-impact journals such as *Orphanet Journal of Rare Diseases*, *Journal of Clinical Immunology*, *Pediatric Hematology and Oncology*, and *British Journal of Haematology*, highlighting her expertise in immune thrombocytopenia, sickle cell disease, Langerhans cell histiocytosis, and pediatric leukemia.

Dr. Armari-Alla is a recognized leader in pediatric hematology and oncology in France and actively promotes interdisciplinary approaches to rare diseases and innovative therapies.

Delayed Hemolytic Transfusion Reaction (DHTR) and Hyperhemolysis in Children with Congenital Hemoglobinopathies

Dr. Corinne ARMARI ALLA, Head of the Pediatric Immuno-Hemato-Oncology Department, CHU Grenoble Alpes – Mother and Child Hospital, France

Congenital hemoglobinopathies are among the most common genetic diseases worldwide, with a specific geographical distribution:

- Major sickle cell syndromes (Hb SS and SC) are most commonly observed in sub-Saharan Africa, in North Africa for sickle-β-thalassemia syndromes, and also in all Western countries impacted by forced migration (triangular trade between the 16th and 19th centuries), colonization, or more recently, voluntary migration in the 20th and 21st centuries. In France, it is estimated that between 25,000 and 30,000 patients are currently followed for sickle cell disease.
- Alpha or beta thalassemia syndromes affect populations originating from the Mediterranean region or Southeast Asia, depending on the phenotype.

Anemia is the common and cardinal symptom of these hemoglobin disorders, and treatment systematically involves red blood cell transfusion. Historically, the main risk associated with transfusion was infection, particularly from viruses such as hepatitis B, C, and HIV. Thanks to current donor screening and viral testing protocols, this risk has been virtually eliminated in most countries.

Today, the most feared complication is post-transfusion alloimmunization, which may present abruptly as delayed hemolytic transfusion reactions (DHTR) or hyperhemolysis episodes following re-transfusion.

This complication largely stems from a mismatch between erythrocyte phenotypes of patients (often of African descent) and donors (typically Caucasian). Patients' blood groups are considered rare when their erythrocyte phenotype is underrepresented among available blood products.

This major complication can lead to transfusion impasse, posing a life-threatening situation if no transplant solution is available.

This presentation will explore, through a recent literature review:

- The definitions of DHTR and hyperhemolysis (HH)

VERONIQUE PLANTAZ

Dr. Véronique Rouault Plantaz is a French medical doctor specialized in anatomical pathology, with over three decades of experience in private and academic pathology practice. She founded her pathology laboratory in Grenoble in 1986 and developed expertise in dermatopathology, breast pathology, and viro-induced cervical lesions. Her training includes a postdoctoral fellowship at UCSF under Prof. Philip LeBoit, and a university diploma in senology from Grenoble. In recent years, she has shifted her focus to psychoanalysis, practicing since 2021 as a member of the Association Lacanienne Internationale. Dr. Rouault Plantaz has also contributed to international medical research and congresses and published on pathology and the emerging field of icono-diagnosis, reflecting her interdisciplinary interest in art, medical history, and cultural anthropology.

Imerslund-Gräsbeck syndrome : a rare, long-delayed hematological diagnosis through a new-approach : what is icono-diagnosis ? Structured Abstract.

The study of an old Italian Renaissance portrait of a young boy with an helmet reveals anomalies in the form of ten nails and skin modifications, which, when considered together, suggest a diagnosis of Imerslund-Gräsbeck syndrome. Could these subtle modifications, which have never been described before, shed new light on the painter Giorgione, whose life and artistic aims remain largely unknown? The study introduces the relatively new discipline of iconodiagnosis, the art of discovering medical or veterinary facts from artistic representations, including paintings, sculptures, and artefacts.

Results, discussion

After a brief overview of iconodiagnosis, an ancient method recently rediscovered with growing interest in medical science, we present Giorgione's portrait of Francesco Maria della Rovere from the Kunsthistorisches Museum in Vienna (circa 1507). The young sitter shows koilonychia, anemic pallor and indirect criteria for growth retardation, suggesting Imerslund-Gräsbeck syndrome (IGS).

IGS is an autosomal recessive disorder that affects Vitamin B12 absorption in the intestine and the reabsorption of proteins from primitive urine in the kidneys. This severe condition is caused by a mutation on chromosomes 10 or 14, which affects the chemical structure of the membrane receptor for the B12 vitamin-intrinsic factor complex, and the receptor for protein reabsorption in the kidney. This syndrome is very rare and, if left untreated with parenteral vitamin B12, invariably leads to death before the age of 15. There is a geographic distribution in small foci, one of which is the Sephardic Jewish group originating from Tunisia, which is of interest to us.

From an artistic point of view, could an old painting reveal an obscure family history through a subtle anomaly in the nails? Based on our extensive study of the mystery surrounding Giorgione, which reveals his keen interest in significant details and close familiarity with his subjects, we demonstrate that Giorgione was likely the younger brother of the deceased subject, whose baptism as Francesco Maria Della Rovere is preposterous. We confirm the conjunction of many arguments supporting his Jewish Sephardic origin.

Conclusions and perspectives

Seven newly discovered items about Giorgione’s mysterious life, as well as his subtle methods of revealing and concealing them simultaneously, allow us to suppose that he had a very different personality than the one currently described among art connoisseurs by the "Giorgionesque doxa."

A complete overhaul of the theoretical basis for evaluating his artwork is now required, as the current approach no longer reflects the reality of his art.

DANG THI TAM

Dr. Dang Thi Tam, MD, a dedicated pediatric oncologist currently serving at the Department of Pediatric Oncology – Hematology – Stem Cell Transplantation, Hue Central Hospital. Dr. Tam completed her medical training at Hue University of Medicine and Pharmacy, earning her MD in 2018. She further pursued postgraduate studies at the same institution, obtaining both a Master's degree and completing the residency program in 2021.

Dr. Tam plays a role in the pediatric hematopoietic stem cell transplantation program at Hue Central Hospital, particularly in the treatment of solid tumors and thalassemia. Beyond her clinical responsibilities, she is actively engaged in research and contributes to scientific advancements in pediatric oncology. Her dedication to professional development has led her to undertake specialized training programs in Singapore, the Philippines, and several leading hospitals across Vietnam.

Feasibility and Efficacy of High-Dose Chemotherapy and Autologous Stem Cell Rescue for Children with High Risk Neuroblastoma at Hue Central Hospital: A five years report

Background: High-dose chemotherapy (HDC) with autologous stem-cell rescue is a key component of treatment for high risk (HR) neuroblastoma in high-income countries. However, access to this therapy is limited in low- and middle-income countries (LMIC). This study aims to describe the baseline characteristics of 34 children with HR neuroblastoma and evaluate the feasibility and effectiveness of this therapy at Hue Central Hospital, Vietnam. Methods: Demographic and response data were collected from the medical records of 34 children with HR neuroblastoma who received autologous transplantation between November, 2019 (start of program) and January, 2024. Data were analyzed in SPSS v.18.0.

Results: The mean age was 4.2 ±1.5 years with a male-to-female ratio of 1.4:1. The most common symptoms were fever (58.8%), abdominal pain (47.1%), and pallor (38.2%). Metastatic sites included bone marrow (79.4%), bone (44.1%), distant lymph node (20.6%), brain (11.8%), and liver (11.8%). N-Myc was amplified in 20.6% of cases. Pre-transplant evaluation showed 82.4% patients with partial response and 17.6% patients with complete response. The mean dose of CD34+ cells was 5.5 ± 2.6x106/kg. The number of CD34+ cells infused positively correlated with earlier time to engraftment. The percentage of grade 3 mucositis and venooclusive disease were 5.9% and 2.9%, respectively. All patients were successfully treated for febrile neutropenia. Only one case of transplant-related mortality was observed. The 24-month overall and event-free survival were 69.8% and 65.6%.

Conclusions: Using HDC with busulfan and melphalan prior to stem cell rescue for HR neuroblastoma in a LMIC setting is safe and efficacious.

PHAM THI VIET HUONG

Dr Pham Thi Viet Huong graduated from Ha Noi Medical University in 1996. She successfully defended her doctoral thesis with distinction and high honors in 2016. Currently, she has been working as an oncologist in hematopoietic stem cell transplantation team in Vinmec International General Hospital. Since 2002, she has been a researcher and a clinical physician with more than 30 publications and lectures in textbooks.

Dr Huong is an expert in pediatric oncology, hematopoietic stem cell transplant as well as CAR T. She is one of the first member in CAR T project in Viet Nam. She was trained in Singapore National Cancer Institute, Texas University, USA; Methodist Hospital, San Antonio, USA; University of Alabama at Birmingham, USA; Karolinska Hospital, Stockholm, Sweden, etc

Dr Huong has also chaired many national conferences sessions on childhood cancer. She contributing to researching and improving the quality of hematopoietic stem cell transplantation at Vinmec system.

Throughout her distinguished career as an oncologist and a medical scientist, she have consistently sought to bridge innovation and clinical practice to develop novel therapeutic approaches. In 20 years as Deputy of pediatric oncology Department of Viet Nam National Cancer Hospital and the chairperson of many conferences, she had dedicated and contributed many scientific research works and opinions to the cancer industry.

She is working as oncologist of Regenerative Medicine and Cell Therapy Department, Vinmec International General Hospital, her recent focus has expanded toward immunotherapy, cell therapy, hematopoetic stem cell transplantation and cell-free biologics-particularly EV-as promising, safe, and effective tools in the treatment of complex diseases, including cancer.

She is attending clinical trials on immune cell therapies for cancer, CAR T cell trial for leukemia and lymphoma, allogenic and autologous transplantation for benign and malignant diseases that greatly promise as active and effective therapeutic tools for many cancers.

ALLOGENIC HEMATOPOIETIC STEM CELL TRANSPLANT IN CLINICAL CASE WITH MUCOPOLYSACCHARIDOSE TYPE II

Mucopolysaccharidoses (MPS) are a group of genetic lysosomal storage disorders. Individuals with MPS lack a specific enzyme in the lysosome, which degrades glycosaminoglycans (GAGs) in many tissues in the body. Deficiency of the enzyme leads to an accumulation of undegraded GAGs in the body. This results in systemic clinical manifestations unique to patients with MPS. There are seven identified types of MPS, based on the specific enzyme deficiency and successive accumulation of specific GAG(s). Some of the common clinical manifestations of MPS include skeletal manifestations, cardiac and respiratory disease, and in some types of MPS, central nervous system (CNS) involvement. HSCT is considered the standard of care for those with MPS IH and an optional treatment for Hurler/Scheie syndrome (MPS IH/S) and Scheie syndrome (MPS-IS) (attenuated phenotypes of MPS I), MPS II, MPS IVA, MPS VI, and MPS VII. (1) Understanding lessons from case studying of a patient with Mucopolysaccharidoses type II who had been successfully ungergone allogenic hematopoietic stem cell transplant. (2) Clinical case description. (3) The patient received a successful allogeneic hematopoietic stem cell transplant, improving disease symptoms. (4) From case studying, we found that allogeneic hematopoietic stem cell transplantation is a promising treatment method for MPS patients.

SESSION 11: VFO - ALLOGENEIC HSCT

Hall : BALLROOM 3
Time: 15:30-17:30

Chairs: Huynh Van Man, MD, PhD;
Prof. Kazuhiro Ikegame, MD, PhD; Valerie Dubois, MD;

01	Management of Relapsed/Refractory Leukemia in 2025: New Treatments and Advances in Allogeneic Transplantation
02	Prospects and Ambitions of HLA-Mismatched Hematopoietic Cell Transplantation
03	Impact of HLA antibodies in hematopoietic stem cell transplantation

04 **Outcome of allogeneic hematopoietic stem cell transplantation for SAA and PNH atVietnam National Institute of Haematology and Blood Transfusion (2010 -2024)**

05 **Preliminary evaluation of the effectiveness of allogeneic stem cell transplantation in treating severe thalassemia at Hue central hospital**

06 **Locus-specific HLA mismatches in haploidentical hematopoietic stem cell transplantation using post-transplant cyclophosphamide**

CLAUDE BULABOIS

KAZUHIRO IKEGAME

VALÉRIE DUBOIS

VO THI THANH BINH

NGUYEN THI KIM HOA

NGUYEN THE QUANG

CLAUDE BULABOIS

Claude-Eric Bulabois is a highly experienced and accomplished medical professional specializing in Hematology. With a Doctorate in Medicine obtained from the University of Nantes in October 1995, he is a registered physician at the Order of Doctors in Isère (registration number 8271). His career spans over 25 years, with notable roles including Chief of Clinical Research, Assistant Professor, and Hospital Practitioner at various prestigious hospitals including the University Hospital of Grenoble, where he has been responsible for the intensive care unit since 2011.

Dr. Bulabois also played a pivotal role in the successful accreditation of the hospital's Hematology Unit under the Jacie standards in 2010. His educational background is extensive, having earned a DES in Hematology (1994) and a DEA in Organ Transplantation from the University of Besançon. Dr. Bulabois has contributed significantly to hematology clinical trials since 1991 and is a member of several respected scientific societies, such as SFH, SFGM, EBMT, and GOELAMS. His work has been published in leading medical journals, with research spanning topics like stem cell transplantation, lymphoma treatments, and infectious diseases.

He is a well-recognized expert in his field, with decades of hands-on experience and a commitment to advancing the practice of hematology through clinical research and patient care.

Management of Relapsed/Refractory Leukemia in 2025: New Treatments and Advances in Allogeneic Transplantation

The management of relapsed or refractory leukemias remains a frequent challenge in hematology, affecting between 20% and up to 60–70% of patients depending on age and subtype of acute myeloid leukemia (AML).

The main advances over the last decade have been in targeted therapies. For FLT3-mutated leukemias (about 30% of cases), FLT3 inhibitors such as midostaurin, gilteritinib, and quizartinib have shown promise. For IDH1-mutated cases (10–15%), ivosidenib is available. The most significant advance is undoubtedly the introduction of venetoclax into the therapeutic arsenal for AML. Its combination with azacitidine or cytarabine (e.g., the CAV protocol with cladribine as a third agent) has greatly improved outcomes, particularly for refractory AML or in elderly/unfit patients.

Despite these major advances, the only potentially curative option remains allogeneic hematopoietic stem cell transplantation.

Several developments in the past decade now allow this approach to be proposed to a greater number of patients, increasing the likelihood of cure in many cases.

Advances include improved conditioning regimens that reduce toxicity, optimized immunosuppression to limit graft-versus-host disease (GVHD), and better GVHD management strategies.

This presentation will review these developments and current management practices at our center in Grenoble.

KAZUHIRO IKEGAME

Professor Kazuhiro Ikegame is a renowned expert in Hematopoietic Cell Transplantation and currently serves as a Professor at the Hematopoietic Cell Transplantation Center at Aichi Medical University. He holds a medical degree (MD) and a PhD from Osaka University. His career spans various academic roles, including Assistant Professor positions at Hyogo Medical University and Osaka University, where he contributed significantly to the fields of hematology, oncology, and cancer immunotherapy.

Professor Ikegame's research primarily focuses on hematopoietic cell transplantation, particularly HLA-mismatched transplantation, and his expertise extends to transplantation immunology, tumor immunology, and autoimmunity. He is an active member of multiple prestigious societies, such as the Japan Society of Hematology and the Japanese Society for Transplantation and Cellular Therapy. He is also a member of the editorial board for the International Journal of Stem Cell Research and Transplantation since 2012.

Prospects and Ambitions of HLA-Mismatched Hematopoietic Cell Transplantation

A notable discovery by Japanese researchers in transplantation biology is the following principle: while graft-versus-host disease (GVHD) can be triggered by cytokines alone, the graft-versus-leukemia (GVL) effect requires direct contact by T cells. If this is indeed the case, it suggests that blocking cytokines could suppress GVHD while preserving the beneficial GVL response. This naturally leads to the question—what are the specific cytokines involved?

Studies using knockout mice have produced encouraging results, showing that although many cytokines contribute to GVHD, they are not essential for GVL. However, no clinical strategy in humans has yet successfully separated GVHD from GVL by targeting a single cytokine. Steroids, which act as broad-spectrum cytokine inhibitors, have demonstrated clear efficacy despite their known side effects.

Building on this understanding, we developed a high-risk, high-reward transplantation approach known as steroid-haplo, which combines steroid therapy with the robust immune response elicited by HLA mismatch. While this regimen carries some risk of GVHD, it shows promising results even in patients with refractory leukemia or post-transplant relapse. Furthermore, due to its reliable GVHD-suppressing effect, this strategy can be extended beyond haploidentical transplants to include fully HLA-mismatched related donor transplants (full-allo SCT) and spousal transplants.

In these HLA-mismatched settings, GVHD is no longer the primary obstacle; instead, the main challenge becomes immune reconstitution. After haploidentical transplantation, three types of HLA haplotypes are involved: one shared between patient and donor (shared HLA), one unique to the donor (donor-specific HLA), and one unique to the patient (host-specific HLA). T cells restricted to shared and donor-specific HLAs can eliminate donor cells infected with hematotropic viruses (e.g., cytomegalovirus), while T cells restricted to shared and host-specific HLAs can target host cells infected by epitheliotropic viruses (e.g., coronaviruses).

Due to their rarity, host-specific HLA-restricted T cells are difficult to detect with tetramer-based flow cytometry. However, we present a case in which a patient who received a transplantation from a completely HLA-mismatched donor (full-allo SCT) contracted COVID-19 and subsequently made a full recovery. This case suggests the possible involvement and functional capacity of host-specific HLA-restricted T cells in viral defense.

VALÉRIE DUBOIS

Dr. Valérie Dubois is a Medical Doctor in Biology, specializing in Genetics and Immunology. Since 2005, she has been the Head of the HLA Laboratory at EFS Auvergne Rhône Alpes in Lyon, overseeing scientific and routine HLA testing across Lyon, Grenoble, and St Etienne. Actively involved in both organ and hematopoietic stem cell transplantation, she contributed to over 450 organ and 120 HSCT procedures in 2024. Her expertise also includes HLA-disease associations and transfusion medicine. Dr. Dubois is a member of the European Federation for Immunogenetics (EFI) and serves as an official EFI laboratory accreditation inspector.

Impact of HLA antibodies in hematopoietic stem cell transplantation

From platelet-transfusion refractoriness to worse engraftment after hematopoietic stem cell transplantation, presence of anti HLA antibodies in a patient serum have various deleterious effects and now the screening for anti-HLA antibodies deserves to be part of pre-transplant patient work-up.

Exposure to non-self HLA antigens, through transfusion of multiple cellular blood products or intra uterine, has been known to trigger the development of anti-HLA antibodies. This phenomenon may be more relevant in haplo-identical HSCT, particularly multiparous female recipients, as they are more likely to be allo-sensitized against their offspring's HLA antigens.

The incidence of DSA varies across studies, depending on individual factors, detection or identification methods and thresholds considered clinically relevant.

Patients with low level of DSA may not require treatment, while others with very high level of DSA may be at very high-risk for engraftment failure despite current therapies. By contrast, in patients with moderate or high level of DSA, desensitization therapy can successfully mitigate DSA levels and improve donor cell engraftment rate, with comparable outcomes to patients without DSA.

Over the last decade, our increased ability to detect anti-HLA antibodies in recipients' serum, to distinguish their clinical significance, and desensitize patients with DSA before transplant, have decreased the incidence of DSA-induced engraftment failure and improved over all transplant outcomes. Guidelines taking into account the emergence of new evidences, have been published to help physicians in the management of anti HLA antibodies in the context of hematopoietic transplantation.

VO THI THANH BINH

Dr. Vo Thi Thanh Binh serves as Head of Department of Hematopoietic Stem Cell Transplantation at Hanoi National Institute of Hematology and Blood Transfusion (NIHBT), Vietnam.

In 1997, she graduated from Hanoi Medical University and completed a 3-year residency in hematology at Hanoi National Institute of Hematology and Blood Transfusion (NIHBT). In 2000, she officially joined the staff of NIHBT and in 2007, she was appointed Head of Department of Hematopoietic Stem Cell Transplantation. In the same year, she was trained in bone marrow transplantation for 3 months at the National Heart, Lung, and Blood Institute (NHLBI) at the National Institutes of Health (NIH), USA. She also undertook training on cord blood transplant techniques at the Japanese Red Cross Nagoya First Hospital, Japan in 2013 and got her knowledge deepened in lymphoma treatment through short courses at the Mayo Clinic in 2014 and 2015.

Professionally, Dr. Vo Binh specializes in the treatment of diseases such as aplastic anemia, leukemia, myeloma, and lymphoma. She has a particular interest in autologous and allogeneic hematopoietic stem cell transplantation for both adult and pediatric patients.

During her career to date at NIHBT, she has performed more than 690 hematopoietic stem cell transplantation cases. She 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. Vo Binh is a respected member of both the Vietnamese Hematology and Blood Transfusion Association and the International Myeloma Foundation's Asian Myeloma Network (AMN).

Outcome of allogeneic hematopoietic stem cell transplantation for SAA and PNH atVietnam National Institute of Haematology and Blood Transfusion (2010 -2024)

Objective: Allogeneic stem cell transplantation (SCT) remains the most effective curative treatment for patients with benign hematologic disorders, including severe aplastic anemia (SAA) and paroxysmal nocturnal hemoglobinuria (PNH). We summarized our results for these conditions and provide recommendations based on our experience.

Methods: A total of 71 patients (median age 23 years, range 5-42 years) with SAA (n=59), PNH (n=8), or SAA/PNH (n=4) underwent allogeneic SCT between 2010 and 2024 at the NIHBT in Hanoi, Vietnam. Regarding transplant type, most patients received transplants from fully matched HLA sibling donors (n=63), while three patients were transplanted from unrelated cord blood (UCB), two cases involved haploidentical transplants, and three cases combined haploidentical and UCB transplants. Concerning stem cell source, 58 of the 71 patients received peripheral blood stem cells (PBSC), three received CD34+ selected cells, and one patient was transplanted with bone marrow stem cells. One patient with graft rejection following SAA successfully underwent a second transplant from the same donor with the same conditioning regimen. The conditioning regimen consisted of cyclophosphamide (Cy), fludarabine (Flu), and anti-thymocyte globulin (hATG) for 63 patients. GVHD prophylaxis typically included cyclosporine A (CSA) and a short course of methotrexate (MTX); two haploidentical patients received tacrolimus, mycophenolate mofetil (MMF), and cyclophosphamide post-transplant.

Results: The incidence of engraftment by day 30 was 95.8%. The estimated 5-year overall survival (OS) and event-free survival (EFS) were 83.7% and 78.2%, respectively. Acute graft-versus-host disease (GVHD) of grade I-II occurred in 11.7% of patients, and grade II-IV GVHD occurred in only 3.3%. Mild chronic GVHD (cGVHD) was observed in 31.7% of patients, with 3.3% experiencing severe grade cGVHD. CMV reactivation occurred in 80.8% of patients. The incidence of transplant-related mortality at 100 days post-transplant was 4.2%. The one-year mortality rate was 7%.

Conclusions: Based on these results, allogeneic hematopoietic stem cell transplantation is an effective and safe treatment for patients with severe aplastic anemia and PNH, particularly when an HLA-matched sibling donor is available. Haplo-cord and haploidentical transplantation offer promising alternatives for patients with SAA and PNH who lack an HLA-identical related or unrelated donor.

Keywords: Hematopoietic Stem-Cell Transplantation, Non-malignant diseases, Severe alpalstic anemia, PNH, Matched sibling donor, Cord blood transplantation.

NGUYEN THI KIM HOA

Dr. Nguyen Thi Kim Hoa graduated as a Medical Doctor from Hue University of Medicine in 2002. After that, she continued to study for a residency in Pediatrics, a PhD in Pediatrics, and graduated in 2006 and 2023 respectively.

The doctor has been trained in many short-term courses in oncology and bone marrow transplantation in many places in the country and around the world, such as the US, Japan, Singapore, and India. She is currently studying for a Master of Global Child Health from St. Jude Children's Research Hospital, USA.

Dr. Hoa is currently working at the Department of Pediatric Oncology-Hematology-Bone Transplantation at Hue Central Hospital, and is also the Deputy Head of the Department of Pediatrics - Faculty of Medicine - Duy Tan University, and a clinical instructor at Hue University of Medicine and Pharmacy. Dr. Hoa is a pioneer in performing bone marrow transplants in children at Hue Central Hospital in particular and in the Central Highlands region in general. Starting bone marrow transplants in November 2019, up to now, 60 bone marrow transplants have been performed, including 50 autologous bone marrow transplants and 10 allogeneic bone marrow transplants. In particular, the implementation of allogeneic stem cell transplants for Thalassemia patients has only been implemented since September 2024, but the doctor has performed many cases in a short time. The doctor actively participates in pediatric cancer activities in the country and the region.

Currently, Dr. Kim Hoa is the ambassador of Asian pediatric cancer in Vietnam, and has many research works published in domestic and international scientific journals. Up to now, there have been 24 articles published in prestigious journals in the world, and many domestic articles. The doctor has participated and reported at regional pediatric cancer conferences and has presented posters at international pediatric cancer conferences.

Preliminary evaluation of the effectiveness of allogeneic stem cell transplantation in treating severe thalassemia at Hue central hospital

Background: Thalassemia is highly prevalent in Vietnam with 2.000 new severe cases yearly. Bone marrow transplantation remains the only established long-term cure for severe thalassemia. This report describes the baseline characteristics of severe thalassemia and evaluates the feasibility and effectiveness of bone marrow transplantation therapy at Hue Central Hospital, Vietnam.

Materials and Methods: This is a prospective, interventional cohort study conducted at Hue Central Hospital, Vietnam for severe thalassemia who received allogeneic stem cell transplantation between September 2024 (start of program) and July 2025. Data were analyzed in SPSS v.18.0

Results: A total of 10 matched-related BMTs have been performed during this time. Now, all of whom are disease- and GVHD-free. The median age at BMT was 5.6 years old (2.0-10.0). The male and female accounted for 60.0% and 40.0% respectively. There were 6 cases with HbE/Beta-Thalassemia and 4 cases with Alpha-Thalassemia. The median ferritin level pre-transplant was 1078.5 ng/ml (236-2917). The median dose of nucleated cells was $9.55x10^8$ cells/kg ($8.4-10x10^8$). The median platelet and neutrophile engraftment time was 19 days (16-26) and 20 days (13-21), respectively. There were two cases (20%) with skin aGVHD-grade I and two cases (20%) with hemorrhagic cystitis. The median chimerism after day 30 was 97.9%. The median Hb after transplant was 12.7 (10,6-14.7) g/dl. All patients are very healthy now without red blood cells transfusion.

Conclusions: Allogeneic stem cell transplantation is a good therapy to cure severe thalassemia with HLA-matched siblings. This therapy demonstrates effective and safe therapy.

Keywords: Allogeneic stem cell transplantation, severe thalassemia, HLA-matched siblings.

NGUYEN THE QUANG

Dr. Quang The Nguyen graduated from the Pham Ngoc Thach University of Medicine in 2017. Dr. Quang worked as a clinical physician at the Department of Clinical Pediatric Hematology, Blood Transfusion Hematology (BTH) hospital in Ho Chi Minh City. Since 2018, he has been a researcher and clinical doctor at the Department of Research and Training and the Department of Stem Cell Transplantation. In 2019, Dr. Quang participated in the training program for foreign researchers about cord blood transplantation at the Department of Internal Medicine (Hematology), Aichi Medical School of Medicine, Japan. Dr. Quang has also participated in one of the first clinical trials at the BTH hospital. He is also contributing to researching and improving the quality of hematopoietic stem cell transplantation at the BTH hospital. He achieved his Specialist Level 1 degree in Hematology from the HCMC University of Medicine and Pharmacy in 2022. He has been the manager of the Department of Research and Training since June 2023.

Locus-specific HLA mismatches in haploidentical hematopoietic stem cell transplantation using post-transplant cyclophosphamide

Nguyen The Quang[1], Huynh Van Man[1], Phu Chi Dung[1]
[1]Blood Transfusion Hematology Hospital

Background: Haploidentical hematopoietic stem cell transplantation with post-transplant cyclophosphamide (haplo-PTCy) has proven critical for patients lacking fully HLA-matched donors in Vietnam. This study characterizes high-resolution HLA profiles and locus-specific mismatches in haplo-PTCy recipients with hematologic malignancies, including novel factors like B-leader and T-cell epitope (TCE) at HLA-DPB1. Objectives: The objective of this study is to provide a detailed description of HLA mismatches at individual loci, incorporating emerging factors such as B-leader and TCE-core, in the context of haploidentical stem cell transplantation utilizing post-transplant cyclophosphamide (haplo-PTCy). Methods: This study was conducted through a cross-sectional analysis of 31 haplo-PTCy patients at the Hematology and Blood Transfusion Hospital from December 2020 to April 2025. High-resolution next-generation sequencing (NGS) was performed to assess HLA at six loci: A, B, C, DRB1, DQB1, and DPB1 in both donors and recipients. The analysis of mismatches was carried out using online tools to evaluate allele-level differences for B-leader (HLA-B) and TCE-core (DPB1). Results: Regarding HLA matching, the majority of patients had a match of 5 out of 10 HLA loci. In terms of mismatch distribution, the highest discrepancies were observed at HLA-B and HLA-DPB1. The predominant alleles identified were: HLA-A: 11:01 (25.8%), HLA-B: 15:02 (19.4%), HLA-C: 08:01 (27.4%), HLA-DRB1: 12:02 (22.6%), HLA-DQB1: 03:01 (22.6%), and HLA-DPB1: 05:01 (29%). For B-leader, the majority of cases were found to be matched (84%). Concerning TCE-core (58%), most cases were classified as nonpermissive with a graft-versus-host (GvH) direction (32%). Conclusion: This locus-specific HLA mismatch profiling establishes a foundation for future research on the impact of HLA in haplo-PTCy transplantation for hematologic disorders in Vietnam.

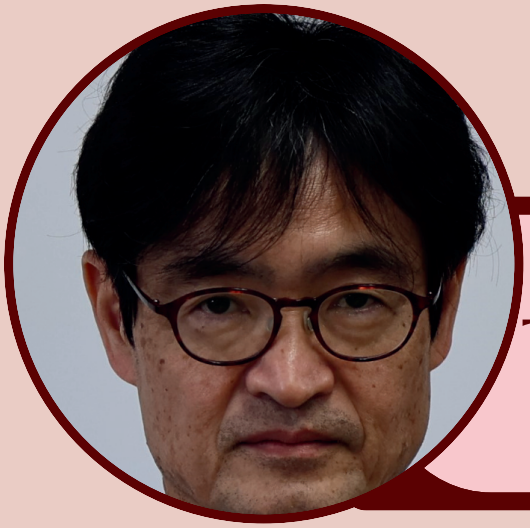
Key words: Haplo-PTCy, HLA, B-leader, TCE.

SESSION 14: VFO - CAR-T CELLS THERAPEUTIC IMPLICATIONS

Hall : BALLROOM 2
Time: 7:45 -9:45

Chairs: Prof. Phu Chi Dung, MD, PhD; Prof. Takanori Teshima, MD, PhD; Prof. Suradej Hongeng, MD; Prof. Yao Ming, MD

01	Hematopoietic stem cell transplantation and CAR-T cell therapy in Japan
02	CD19 - CAR T Cell therapy at NTUH and Taiwan
03	CAR-T Cell Therapy: From Theory to Practice
04	CAR-T Cell development in LMIC
05	Point of care for gene therapy in Thalassemia



TAKANORI TESHIMA

YAO MING

CHAU THANH THAO

SURADEJ HONGENG

TAKANORI TESHIMA

Dr. Takanori Teshima, MD, PhD, is a Distinguished Professor in the Department of Hematology at Hokkaido University, Sapporo, Japan. He is a prominent physician-scientist specializing in hematopoietic cell transplantation and immune cell therapy, with a focus on understanding the immunobiology of graft-versus-host disease (GVHD) and graft-versus-leukemia (GVL). Dr. Teshima is a leading figure in advancing haploidentical hematopoietic cell transplantation (HCT) and CAR-T therapy in Japan. He currently serves as the President of the Japanese Society for Transplantation and Cellular Therapy (JSTCT), Vice President of the Japan Society of Transfusion Medicine and Cell Therapy (JSTMCT), and Executive Director of the Japanese Society of Hematology (JSH).

Hematopoietic stem cell transplantation and CAR-T cell therapy in Japan

In Japan, 3,700 allo-HCT and 2,000 auto-HCT were performed annually. Elderly patients >50y account for 55% of allo-HCT. One-third of allo-HCT is related (PBSCT 87%, BMT 13%) and two-third are unrelated (CBT 56%, BMT 34%, PBSCT 13%). In PBSCT, low-dose ATG reduces chronic GVHD and improves QOL. Use of low-dose ATG is recommended for matched related and unrelated PBSCT in low-risk patients. HLA-haploidentical HCT using posttransplant cyclophosphamide (PTCY) now outnumbers HLA-matched related donor HCT. PTCY is also approved for HLA-matched HCT, except for CBT. Reduced-dose of PTCY (80 mg/kg) promotes engraftment and may reduce fetal cardiotoxicity. Cord blood transplantation (CBT) accounts for 58% of unrelated HCT and mini-dose MTX ($5mg/m^2$) promotes engraftment. CBT reduces chronic GVHD and relapse is less in patients with non-remission AML. Low-dose ATG, PTCY, and CBT all reduce chronic GVHD and improve QOL of long-term survivors. Survival is equivalent between these HCTs.

In Japan, five CAR-T products are approved. Currently, nearly 1,000 CAR-T cell therapy have been performed at almost 70 certified hospitals. Disease indication is B-cell lymphoma (80%), myeloma (13%), and B-ALL aged 25 y or less (8%). Out-of-spec rate is now less than 4%. For these 3 diseases, bispecific antibodies are also approved. Positioning of CAR-T cell therapy, bispecific antibodies, and allo-HCT remains unclear, but allo-HCT for lymphoma decreased. Clinical trial of CAR-T cell therapy for autoimmune diseases is now ongoing.

YAO MING

Ming Yao, MD, is a highly experienced hematologist and clinical expert, currently serving as the Director of the Hematopoietic Stem Cell and Bone Marrow Transplant Unit at National Taiwan University Hospital (NTUH). He completed his medical education at NTU, Taiwan, and pursued postgraduate training in internal medicine and hematology, both in Taiwan and at Saint-Antoine Hospital, Paris. With extensive clinical experience since 1995, Dr. Yao also directs the Cellular Therapy Research Center at NTUH and has held leadership roles, including President of the Taiwan Bone Marrow Transplantation Association. He has been an academic faculty member at NTU since 1998, where he is now an Associate Professor. Dr. Yao is board-certified in internal medicine, hematology, and bone marrow transplantation.

CD19-CAR T cell therapy at NTUH and Taiwan

Background: Tisagenlecleucel has demonstrated clinical efficacy in relapsed/refractory diffuse large B-cell lymphoma (R/R DLBCL). However, real-world experience in Taiwanese centers remains limited. We evaluated the safety and efficacy of Tisagenlecleucel in patients relapsed after ≥2 lines of prior therapy at National Taiwan University Hospital and Cancer Center (NTUH-NTUCC).

Methods: In this retrospective analysis, we included 29 consecutive R/R DLBCL patients who had received ≥2 prior lines of therapy and underwent leukapheresis between October 2022 and December 2024, with Tisagenlecleucel infusion from November 2022 to March 2025. Baseline characteristics, treatment-related toxicity (ASTCT criteria), response per Lugano 2014, and survival outcomes were analyzed.

Results: The cohort included 29 patients with a median age of 63 years (range 19–83), comprising 18 males and 11 females. They had received a median of four prior lines of therapy (range 2–7), with nine undergoing hematopoietic stem cell transplantation (HSCT)—seven autologous and two allogeneic. Most patients (23/29) had at least one extranodal site of disease, and five had ≥3 sites involved; additionally, five presented with transformed lymphoma (1 FL, 2 MZL, 2 CLL). The best overall response rate was 79%, including 16 complete responses (CR), 7 partial responses (PR), and 2 progressive disease (PD). After a median follow-up of 10.8 months, median progression-free survival (PFS) was 5.2 months (95% CI 1.2–9.3) and median overall survival (OS) was 13.6 months (95% CI 9.7–17.5). Median PFS by response differed significantly: 16.9 months for CR (95% CI not reached), 5.2 months for PR (95% CI 3.3–7.2), and 1.3 months for PD (95% CI 0.9–1.7). Grade ≥3 cytokine release syndrome (CRS) and ICANS occurred in four patients each (14%). Thirteen patients died—10 due to relapse—and three experienced treatment-related mortality (one each from ICANS, graft-versus-host disease, and infection). The five-month cumulative incidence of relapse was 42.5%. Primary resistance was observed in three patients (10%) and secondary resistance in 11 (38%). Of 12 patients with documented CD19 status at relapse, four (33%) exhibited CD19-negative disease.

Conclusion: Our findings validate that, even in a challenging, heavily pretreated Taiwanese population, tisagenlecleucel administered after ≥2 prior therapies deliver efficacy and tolerability consistent with global real-world experience.

CHAU THANH THAO

Dr. Chau Thanh Thao graduated with a General Medicine degree from Pham Ngoc Thach University of Medicine in 2016. She has been working at the Blood Transfusion Hematology Hospital since 2016. In 2021, Dr. Chau Thanh Thao completed her Specialist doctor Level I in Hematology. She has over 6 years of experience in Pediatric Hematology and Stem Cell Transplantation.

In 2024, Dr. Thao participated in a training program on CAR-T cell therapy at National Taiwan University Hospital (NTUH).

CAR-T Cell Therapy: From Theory to Practice

Chimeric Antigen Receptor T-cell (CAR-T) therapy is a promising new cancer treatment that involves modifying a patient's T cells to recognize and attack cancer cells. Multiple generations of CAR-T cells have been studied and improved to enhance treatment efficacy. With ongoing research and development, CAR-T therapy holds the potential to revolutionize cancer treatment, improve outcomes for patients, and expand its applications to solid tumors.

This report provides an overview of CAR-T therapy, highlights recent advancements, and summarizes clinical trials related to CAR-T treatment. It also discusses the limitations and side effects of CAR-T therapy, including high costs and risks such as cytokine release syndrome (CRS) and immune effector cell-associated neurotoxicity syndrome (ICANS).

Although CAR-T therapy has shown promising results in the treatment of hematologic malignancies, patients in Vietnam still face significant challenges in accessing this treatment. We present a case of a patient with relapsed B-cell acute lymphoblastic leukemia (B-ALL) post-transplant at the Blood Transfusion Hematology Hospital, who was treated with an FDA-approved commercial CAR-T product and has remained in remission one year after therapy. This case highlights both the potential and the challenges of implementing CAR-T immunotherapy in Vietnam.

SURADEJ HONGENG

Prof. Suradej Hongeng is a leading pediatric hematologist-oncologist and professor of pediatrics at Ramathibodi Hospital, Mahidol University, Bangkok, Thailand. With over three decades of clinical experience, he is internationally recognized for his pioneering contributions to pediatric oncology, hematopoietic stem cell transplantation (HSCT), thalassemia, and immunotherapy.

He received his medical degree and completed his pediatric residency at Ramathibodi Hospital, Mahidol University, followed by specialized training in pediatric hematology-oncology at the University of Illinois at Chicago and St. Jude Children's Research Hospital, USA. He is also certified by the American Board of Pediatrics in both General Pediatrics and Pediatric Hematology-Oncology.

Prof. Hongeng has served as faculty at Mahidol University since 1997, advancing from lecturer to full professor and currently acting as Vice Dean for Research. His clinical and academic work is deeply rooted in translational medicine, with a special focus on cellular and gene therapies for hemoglobinopathies and rare genetic disorders. He has been instrumental in developing and implementing HSCT and CAR-T cell protocols in Thailand.

He has authored or co-authored numerous high-impact publications in international journals, contributing to breakthroughs in thalassemia gene therapy, neuroblastoma treatment, enzyme replacement therapy in Gaucher disease, and the application of induced pluripotent stem cells (iPSCs) in pediatric care.

Prof. Hongeng is also a key figure in Asia-Pacific collaborative networks in pediatric hematology, stem cell transplantation, and gene therapy, helping to bridge clinical innovation with accessible healthcare across the region.

CAR-T Cell development in LMIC

The details of the report will be communicated during the conference

Point of care for gene therapy in Thalassemia

The details of the report will be communicated during the conference

SESSION 18: VFO - CELL THERAPY

Hall : BALLROOM 2
Time: 10:15-12:15

Prof. Phu Chi Dung, MD, PhD; Prof. Akihiro Shimosaka; Professor. William Hwang Ying Khee, MBBS, FRCP, FAMS, MBA

01 Next generation cellular therapies

02 Points to consider for Cell, Gene and Exosome therapy

03 Mesenchymal Stem Cells in Human Umbilical Cord Blood and Placental Tissues: Isolation, Clinical-Grade Processing, and Therapeutic Applications

WILLIAM HWANG YING KHEE

AKIHIRO SHIMOSAKA

TSUNEO TAKAHASHI

ANNE PAGNIER

TRAN TRUNG DUNG

WILLIAM HWANG YING KHEE

Professor William YK Hwang is Senior Consultant Haematologist at Singapore General Hospital and the National Cancer Centre Singapore. He currently serves as Director of SingHealth Transplant, Head of the SingHealth Duke-NUS Blood Cancer Centre, and Medical Director of the Singapore Cord Blood Bank. He is also an Associate Professor at Duke-NUS Medical School and Clinical Lecturer at the Yong Loo Lin School of Medicine, National University of Singapore.

Prof. Hwang has over 20 years of experience in the field of haematology and stem cell transplantation. He has led numerous national and regional initiatives in transplantation and cell therapy, and has held key leadership roles, including Past President of the World Marrow Donor Association and the Asia Pacific Blood and Marrow Transplant Group (APBMT). He currently chairs the Chapter of Haematologists, College of Physicians, Academy of Medicine Singapore.

His research interests include hematopoietic stem cell transplantation, mesenchymal stromal cell therapy, ex vivo expansion of cord blood stem cells, and next-generation immune cell therapies. He has published extensively in peer-reviewed journals and presented widely at international scientific meetings. Prof. Hwang's clinical and academic work has contributed significantly to advancing curative and precision therapies for blood cancers and regenerative applications.

Next-Generation Cell Therapies: Innovations in Immune and Regenerative Platforms

Cellular therapies are rapidly advancing beyond conventional paradigms, integrating novel cell types, precision engineering, and scalable manufacturing platforms. This presentation outlines recent scientific and translational progress in next-generation cell therapies across both immuno-oncology and regenerative medicine.

In the oncologic space, engineered immune cells are being optimized for enhanced efficacy, safety, and accessibility:

- Tumor-infiltrating lymphocyte (TIL) therapy, now FDA-approved for metastatic melanoma, demonstrates the clinical feasibility of harnessing endogenous tumor-specific lymphocytes. Ongoing trials are evaluating its utility in cervical, non-small cell lung, and head and neck cancers.
- T cell receptor (TCR)-engineered T cells enable recognition of intracellular tumor antigens presented via MHC molecules. Early-phase studies targeting NY-ESO-1, MAGE-A4, and mutant KRAS have shown encouraging anti-tumor activity.
- Allogeneic cell platforms, including gene-edited αβ T cells, γδ T cells, and CAR-engineered NK cells, offer off-the-shelf alternatives with reduced alloreactivity and manufacturing timelines. Preclinical and clinical data support their potential in hematologic and selected solid malignancies.

In parallel, regenerative cell therapies are entering clinical application:

- Human cardiovascular progenitor cells, derived from pluripotent stem cells, have demonstrated functional myocardial restoration in ischemic cardiomyopathy models.
- iPSC-derived photoreceptor progenitors and ex vivo expanded corneal endothelial cells are being developed for retinal degenerative diseases and corneal failure, respectively, addressing global tissue shortages.
- Hematopoietic stem and progenitor cell (HSPC) expansion using the small molecule C7 enables robust, lineage-balanced ex vivo proliferation across multiple tissue sources, improving graft potency.
- Mesenchymal stromal cells (MSCs) are under clinical evaluation for musculoskeletal regeneration, including osteoarthritis and fracture healing, with regulatory frameworks emerging to support clinical deployment.

Together, these platforms represent a convergence of cellular engineering, stem cell biology, and translational medicine, enabling disease-modifying interventions across oncology, degenerative conditions, and aging-related decline.

AKIHIRO SHIMOSAKA

Dr. Akihiro Shimosaka is a distinguished leader in the field of research and development, currently serving as the Director of the Research and Development Division at the Research Foundation for Community Medicine. Additionally, he holds key positions as the Chairperson of the Asian Cellular Therapy Organization, Secretary of the International Society for Cellular Therapy Asian Region, Editorial Board Member for Cytotherapy, and Associate Editor-in-Chief for J. Immuno Cell Therapy.

His academic career includes faculty roles at renowned institutions such as Peking Union Medical College, Peking University, and Xi'an Jiaotong University, among others. Dr. Akihiro Shimosaka earned his Ph.D. in Agricultural Sciences from the University of Tokyo in 1987, with a focus on applied microbiology.

Dr. Akihiro Shimosaka's extensive R&D experience spans discovery research to clinical development of biologics and cellular therapies like EPO, G-CSF, TPO, SCF, and Immuno Cellular Therapy. His regulatory expertise has helped establish new standards for biologics and cellular products across USA, Europe, and Asia.

He is an active member of various prestigious scientific societies, including the American Society of Hematology, European Hematology Association, and International Society for Cellular Therapy, among others.

Points to consider for Cell, Gene and Exosome therapy

Cell, Gene and Exosome therapy became important therapy for patients, and improved the outcome of the various cancer treatment, inborn abnormal disease and regenerative therapy. Usually, autologous cell therapy and gene therapy is viewed as 'therapy', not a drug/device which are commercially distributed. However, some autologous therapies were approved like a drug, such as CAR-T. Some autologous cell therapies are very effective but those are 'therapy'. Then who will approve/authorize those autologous therapy officially and how public insurance can cover autologous therapy like drug/device. Already some countries introduced regulations specifically cover cell therapy but not yet covering the autologous therapy properly.

CAR-T/NK therapy should be regulated as commercial marketable product, following drug/device model, or as autologous therapy. Autologous treatment will be much cheaper than drug model.

Dendritic cell (DC) therapy dose work but only Dendreon DC for prostate cancer was approved in USA as Provenge. Provenge use patient derived DC and recombinant antigen. But DC specifically stimulated with antigen is only for the patient who provided DC precursor cells, not for the other patient. Same DC technology used for the treatment of multiple myeloma using patient idiotype antigen. The outcome of the study was super, 3 years survival vs. 5 years survival. But companies never followed this treatment because there is no commercial marketable drug/device. Hospital must prepare DC and antigen from the patient and activated DC can be used only for the patient.

Related to regenerative therapy, CD34+ cells for Burger disease and critical Limb Ischemia are approved in Japan as advanced therapy. CD34+ cell is also effective for the treatment of myocardial infarction and dilated non ischemic cardiomyopathy. However, studies in USA used Baxter Isolex for CD34+ purification. Isolex system damaged CD34+ cell capacity/stemness during purification step and outcome of the study was not good. To the contrary, Miltenyi CliniMACS system can purify CD34+ cells without any damage on CD34+ cell. This CD34+ cell separation system performance was confirmed by Dr. Sonoda's work. This was the one of the important reasons why study for cardiac regenerative therapy in Germany was good and USA was not good.

Also, early study for haplo transplantation in Perugia, Italy had problems when they used Isolex system, recovery of platelet was poor and engraftment was not steady. Then they change device to Miltenyi CliniMACS, and outcome became far better.

Similar finding is NK cell therapy. Studies in USA used cryopreserved NK cells after culture and outcome of the study was disappointing. Cryopreserved NK cell shows good cell viability but lost function. Studies in Japan used fresh NK cell immediately after culture and outcome of the study were good. However, those therapies are all autologous cell therapy and not yet authorized as a treatment. We need to establish system/regulation to authorize autologous cell therapy and to be reimbursed by public insurance for every patient. And, we need to encourage hospitals to provide such autologous cell therapy for needed patients. We should give some benefit to the hospital who provide such important autologous cell therapy. Good news is that US FDA recently approved autologous hematopoietic stem cell transplantation combined with high dose therapy for the patient with multiple myeloma. Then US Private insurance will cover this therapy. Hospital may outsource cell processing and material preparation. Then this will give business opportunities to the industry.

Still, we need to work for the new standard to regulate cell, gene and exosome therapy.

TSUNEO TAKAHASHI

Dr. Takahashi received his Doctor of Science from Hokkaido University (Sapporo, Japan) He served as a Scientist at the American Red Cross and the National Institute of Health (NADK, Bethesda, Maryland, USA). He has also held positions as Director of Research at the Hokkaido Blood Center and Visiting Professor at the Institute of Medical Science, Tokyo University. He was Director of the Department of Regenerative Medicine at the New York Blood Center and later held visiting professorships at Kyoto University and Kobe University Medical Science. He became CEO of LIFEBANK Japan in 2014 and currently serves as Supreme Advisor at BioGentium Japan and Special Task Professor at Fukushima Medical University.

Mesenchymal Stem Cells in Human Umbilical Cord Blood and Placental Tissues: Isolation, Clinical-Grade Processing, and Therapeutic Applications

The clinical application of mesenchymal stem cells (MSCs) has advanced significantly in recent years. MSCs have been utilized in various therapeutic areas, including graft-versushost disease (GVHD) suppression in hematopoietic stem cell transplantation, cartilage regeneration in damaged joints, and neural repair in spinal cord injuries.

Despite these advancements, MSC sources remain largely confined to bone marrow and adipose tissue. To expand the availability of MSCs, we have been developing methods for isolating and processing MSCs from umbilical cord blood and placental tissues, including the umbilical cord, for clinical applications. These alternative sources offer numerous advantages, and their distinct differentiation potential suggests that selecting the appropriate tissue source may optimize MSC-based therapies for specific indications.

To produce high-quality MSC products, we have analyzed epigenetic changes during cell expansion, enabling a better understanding of variations between different tissue sources and individual donors. Our goal is to establish a robust system for isolating and preserving MSCs from umbilical cord blood and placental tissues, ensuring their availability for diverse clinical applications both domestically and internationally.

ANNE PAGNIER

Dr. Anne Pagnier is a senior pediatric hematologist and oncologist with over two decades of clinical and research experience in pediatric immuno-hemato-oncology. She currently serves as a Hospital Practitioner in the Pediatric Hemato-Immuno-Oncology Unit at CHU de Grenoble Alpes, France.

Dr. Pagnier obtained her medical degree and specialization in pediatrics and pediatric hemato-immunology from the Université Joseph Fourier in Grenoble. She further completed advanced training in pediatric oncology at Université Paris XI. Since 2006, she has held key clinical roles within CHU de Grenoble and previously trained at the Institut Gustave Roussy, Villejuif—one of Europe's leading cancer centers.

Her clinical expertise spans pediatric leukemia, lymphoma, solid tumors, hematopoietic stem cell transplantation, and rare pediatric immune disorders. Dr. Pagnier has actively participated in numerous national and international clinical trials, notably as principal or sub-investigator for protocols involving neuroblastoma, leukemia, lymphoma, cerebral tumors, and graft studies (e.g., BIOMEDE 2.0, FORUM, SIOPEL, EUROEWING, INTREALL, and HR-NBL).

She is certified in Good Clinical Practice (ICH/GCP) and plays a pivotal role in quality management initiatives, including participation in the JACIE accreditation process. Additionally, she serves as the coordinator of a therapeutic education program (eETP 2025) and is involved in France's national networks for rare pediatric diseases, including UCARE/ACARE and FAI2R.

Dr. Pagnier is a co-author of several impactful peer-reviewed publications over the past five years, addressing topics such as histiocytoses, hereditary angioedema, and pediatric brain tumors. Her work contributes significantly to advancing knowledge in pediatric rare diseases and translational oncology.

Mesenchymal Stromal Stem Cells in Pediatric Bone Marrow Transplantation: Applications, Advances, and Challenges

Mesenchymal stromal cells (MSCs) are the subject of ongoing scientific debate and controversy regarding their terminology, biological properties, and therapeutic uses.

Several terms are currently used—leading to confusion even in scientific literature—including multipotent stem cells, mesenchymal stem cells, mesenchymal stromal cells, and medicinal signaling cells.

Dr. Arnold Caplan, who initially coined the term "mesenchymal stem cells" in 1991, later proposed changing it to "medicinal signaling cells," citing concerns about the misleading and over-marketed use of the terms "stem" or "multipotent," often promoted as cure-alls.

MSCs can be derived from various sources: bone marrow, adipose tissue, peripheral blood, and neonatal tissues such as the umbilical cord, placenta, amniotic fluid, and amniotic membrane.

Their key biological properties include:

- Immunomodulation through direct cell interactions, cytokines, and soluble factors.
- Autocrine and paracrine functions via secretion of growth factors, cytokines, and chemokines.
- Immune evasion capabilities due to the production of immunoregulatory molecules such as IFN-γ, COX-2, PGE-2, and IDO—properties that are increasingly studied in oncology and novel therapeutic areas. Interactions with the complement system, which may reduce the number of transfused MSCs and thus their efficacy, are also under specific investigation.

Numerous clinical trials have explored their use in complications of hematopoietic stem cell transplantation, particularly in steroid-refractory acute graft-versus-host disease (GVHD) in children.

Encouraging and sustained response rates, including complete responses, were reported in phase II trials, leading to the approval of Prochymal® in Canada (2012) and Temcell® in Japan (2015).

However, despite validation for GVHD treatment, the development and commercialization of MSCs remain complex due to production challenges, medico-economic considerations, limited patient numbers, and insufficiently robust results.

TRAN TRUNG DUNG

Dr. Tran Trung Dung graduated with a medical degree and a master's degree in Hematology from Ho Chi Minh City University of Medicine and Pharmacy, and completed a specialist level II degree in Health Management at Pham Ngoc Thach University of Medicine.

He has extensive experience in the field of stem cells and has received specialized training in stem cell bank organization in Singapore, Belgium, Taiwan, and the United States. Since 2005, he has served as the head of Stem cell Bank of Blood Transfusion and Hematology Hospital of Ho Chi Minh City. Dr. Tran Trung Dung is also the author and co-author of numerous scientific articles on stem cell banking and transplantation in Vietnam

Isolation and culture of mesenchymal stem cells from placenta and umbilical cord at the Blood Transfusion Hematology Hospita

Mesenchymal stem cells (MSCs) are adult stem cells capable of self-renewal and differentiation into connective tissue cells such as fat, bone, cartilage, and other cell types including nerve, liver, pancreas, and kidney cells. Besides their differentiation potential into various cell types, MSCs also produce trophic factors that support angiogenesis, and modulate inflammatory responses. MSCs have been widely applied in medicine, including clinical treatment of knee osteoarthritis, chronic obstructive pulmonary disease, spinal cord injury with paralysis, burns, graft-versus-host disease (GVHD), and applications in stem cell-based therapy for aesthetic medicine and plastic surgery.Since 2006, the International Society for Cell & Gene Therapy (ISCT) proposes a set of standards to define human MSCs, including: (1) Plastic-adherent when maintained in standard culture conditions (2) ≥95% of the MSCs population must express CD105, CD73, CD90, as measured by flow cytometry analysis (FCM). Additionally, these cells must lack expression (≤2% positive) of CD45, CD34, CD14, CD11b, CD79a, CD19 and HLA class II. (3) The cells must be able to differentiate to osteoblasts, adipocytes and chondroblasts under standard in vitro differentiating conditions. Compared to other sources of MSCs, the placenta and umbilical cord have some advantages such as safety for donors, non-invasive collection, abundant availability for large transplant doses, diverse differentiation potential, straightforward isolation and proliferation techniques, and fewer ethical issues. In this study, we develop technical procedures for isolating and culturing MSCs from the placenta and umbilical cord, aiming to produce a source of MSCs that meets ISCT standards, thereby providing high-quality cells for medical applications.

13:00 - 17:00

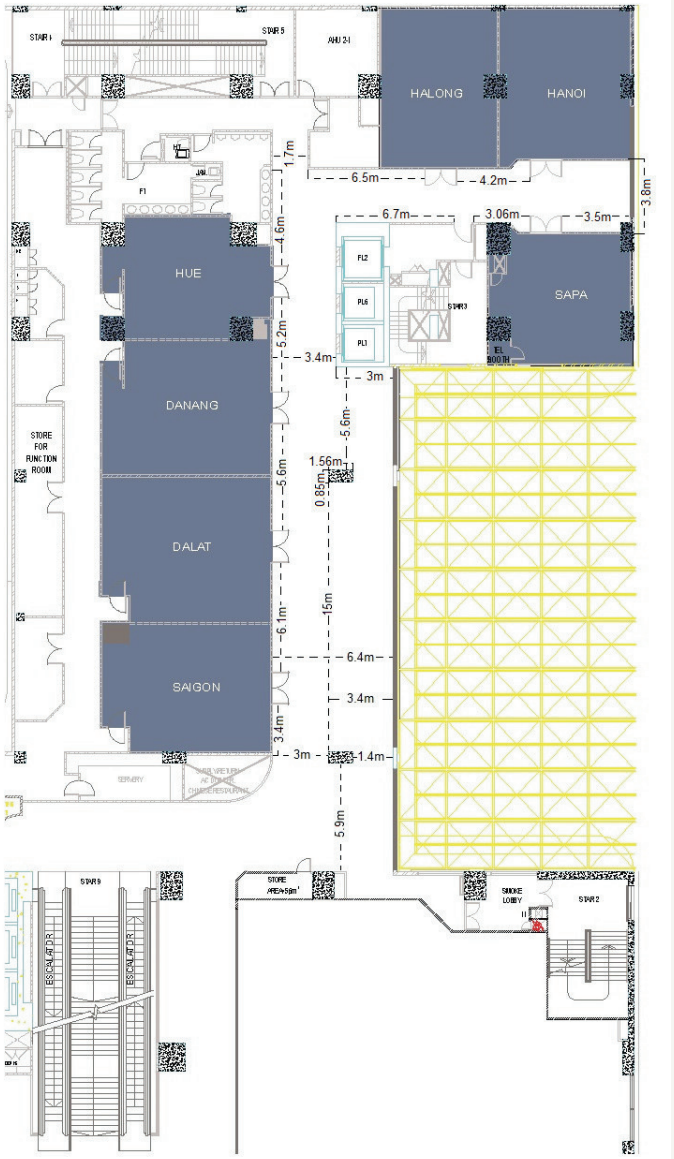
THE 30TH ANNUAL CONGRESS ASIA - PACIFIC BLOOD AND MARROW TRANSPLANTATION GROUP (APBMT)

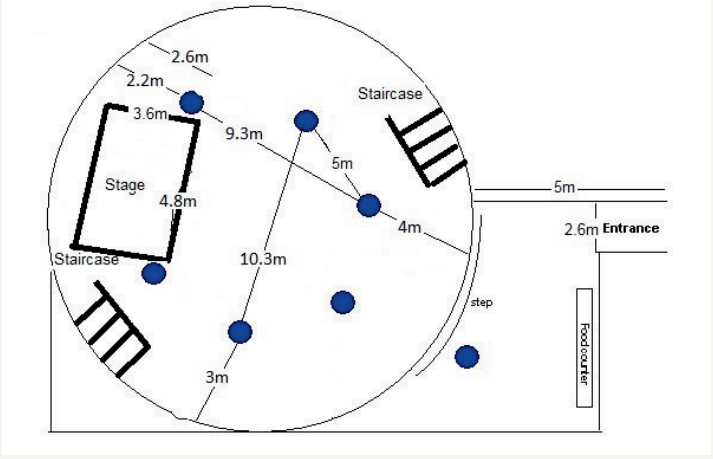
18:00 - 21:00

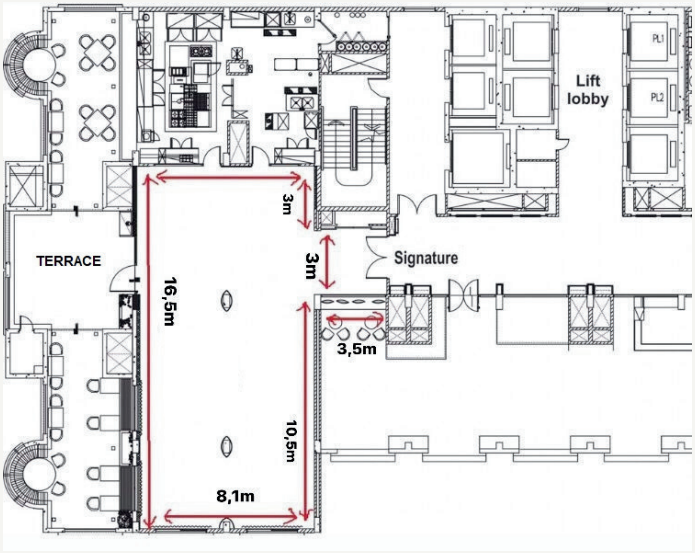
GALA WELCOME

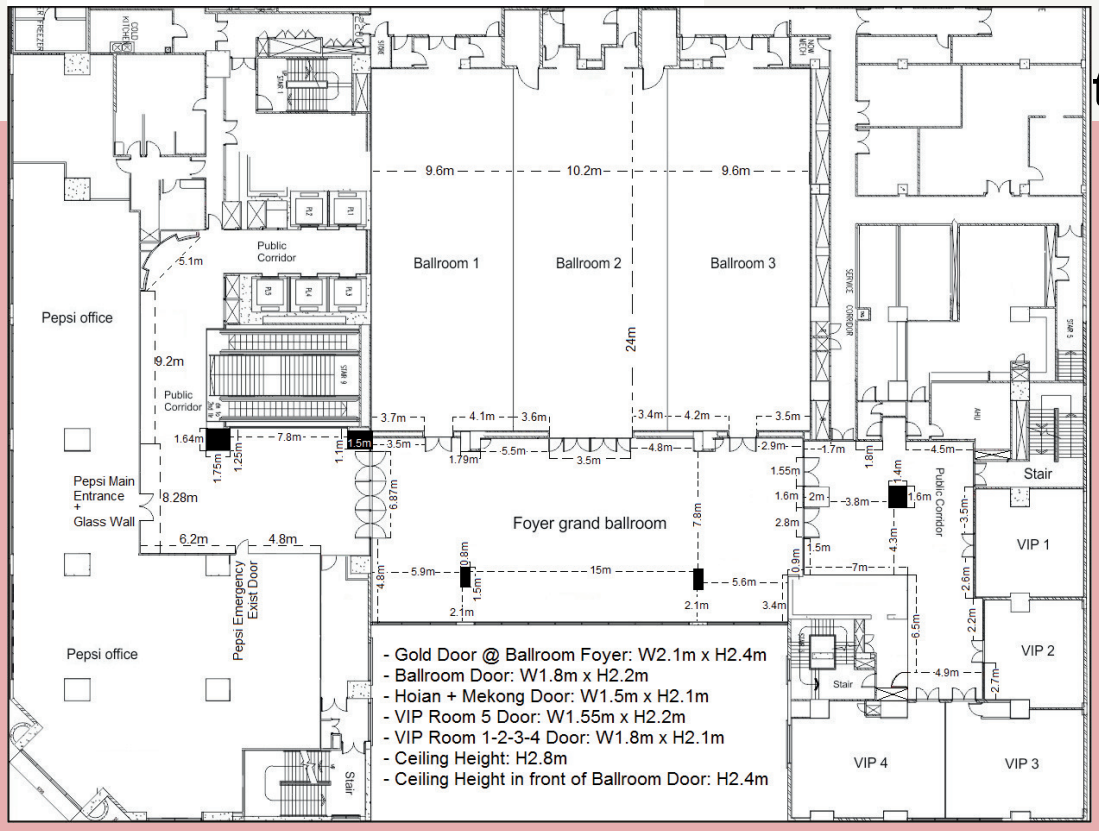
GENERAL INFORMATION

MAP OF CONFERENCE CENTER

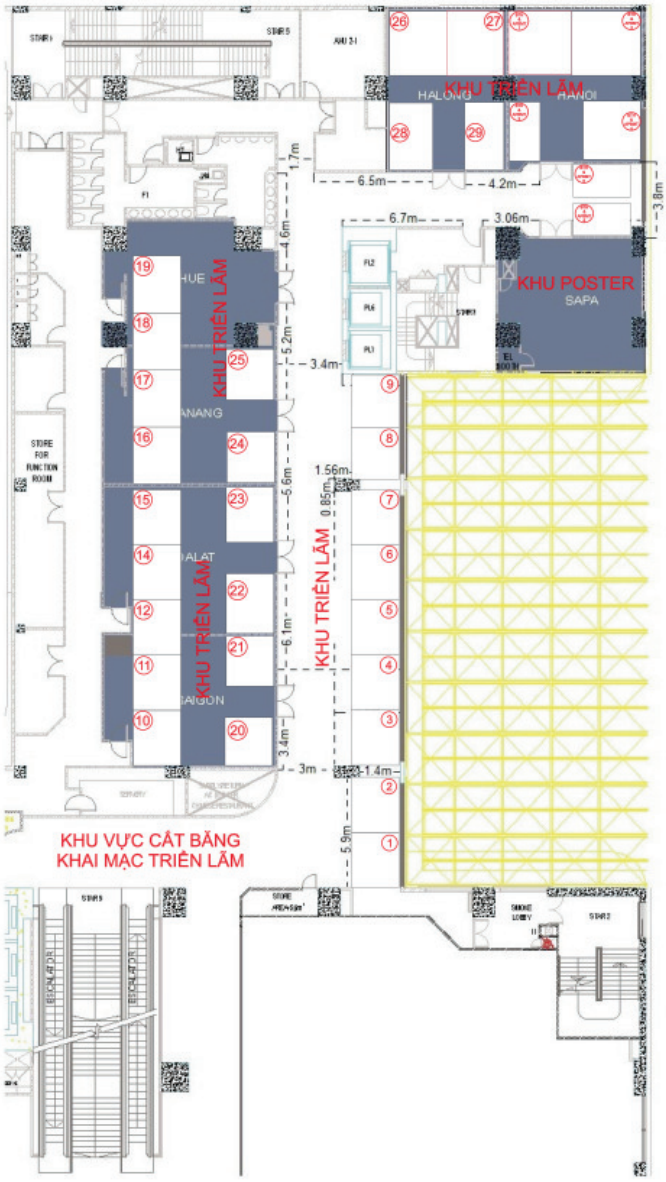








Map of the Halls



- 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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