# Program

### October 12, 2025

## 8:05 ∼ Opening

# 8:15~9:30 Pediatric Extracorporeal Circulation Topics

1. Myocardial Protection in the Pediatric Heart Surgery. Institut Jantung Negara Current Practice

Ritha Chua (Malaysia)

Perfusion Unit, IJN

2. Pediatric perfusion practice in Japan: 2022 Survey Results

Hiroshi Taka (Japan)

Department of Clinical Engineering Center, Okayama University Hospital

3. Pioneering Experience with Pediatric Left Ventricular Mechanical Support: Case Reporting with Perfusion Insights

Vemalan Palanchiandiran (Malaysia)

Anesthesia and Intensive Care, Institut Jantung Negara

4. Acute kidney injury after cardiopulmonary bypass in children

Wei Wang (China)

Department of Pediatric Thoracic and Cardiovascular Surgery, Shanghai Children's Medical Center

5. PEDIATRIC ECMO FOR PAP

Kinnari Chudasama (India)

Lilavati Hospital and Research Centre

#### Moderator

Yasuyuki Kuwabara (Japan)

Department of Clinical Engineering, Mt.Fuji Shizuoka Children's Hospital

• Ju Zhao (China)

Beijing AnZhen Hospital, Capital Medical University

## 9:35 ~ 11:25 The Future of Extracorporeal Circulation

1. Extracorporeal Circulation in Japan: The Need for Closed-Circuit Innovation to Address Operator Dependency and Workforce Issues

Takahiro Okumura (Japan)

Faculty of Health and Medical Care, Saitama Medical University

2. Pediatric Cardiopulmonary bypass: in the future

Fery Nurjayanto (Indonesia)

National Cardiac Center Harapan Kita Hospital

3. The Next Frontier of Extracorporeal Circulation

Chengbin Zhou (China)

Department of Cardiovascular Surgery, Guangdong Provincial Cardiovascular Institute, Guangdong Provincial People's Hospital, Guangdong Academy of Medical Sciences, Southern Medical University

4. The Future of Extracorporeal Technology

Gregory A. Mork (United States of America)

Extracorporeal Services Department, Rush University Medical Center

5. The Future of Cardiopulmonary Bypass in the Philippine Settings

Alma C. Luces (the Philippines)

6. Development and Future Outlook of Extracorporeal Circulation in Taiwan

Jin-Ye Chou (Taiwan)

Cardiovascular Surgery Division, Taipei Tzu Chi Hospital

7. Emerging Artificial Intelligence in Cardiopulmonary Bypass Management Umpaipan Thana (Thailand)

8. Advancements in Perfusion Practice: Innovations and Clinical Implications

Lok Nath Tiwari (India)

Fortis Healthcare Ltd-Kolkata

#### Moderator

Xiaotong HOU (China)

Extracorporeal Circulation and Mechanical Circulation Support, Beijing AnZhen Hospital, Capital Medical University

• Carlito Castrence D. Alzate (the Philippines)

Cebu Doctors University Hospital

• Kanokwan Demeekul (Thailand)

Department of Cardio-Thoracic Technology, Faculty of Allied Health Science, Naresuan University

# 11:30 ~ 12:20 Special Lecture

# Clinical Ethics of Withdrawing Life-Sustaining Treatment in Japan – Practical Guidance for Clinical Perfusionists and ECMO Specialists

Kei Takeshita, MD, Ph.D. (Japan)

Department of Medical Ethics, Tokai University School of Medicine

#### Moderator

• Kent Doi, MD, Ph.D. (Japan)

Department of Emergency and Critical Care Medicine, The University of Tokyo Hospital

#### 12:30 ~ 13:25 Luncheon Seminar

# Hemocompatible coating for extracorporeal circulation materials -Technology, Principle, and our Investigations-

Masashi Tagaya (Japan)

Department of Medical Engineering, National Hospital Organization Kure Medical Center

#### Moderator

• Takeshi Goto (Japan)

Department of Clinical Engineering, Hirosaki University School of Medicine and Hospital

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# 13:40 ~ 15:05 Society's efforts to improve outcomes

1. The American Society of ExtraCorporeal Technology and its efforts to improve surgical outcomes

William Scott Snider (United States of America)

Perfusion Services, Duke University Hospital

2. JaSECT's Initiatives to Standardize and Improve Safety in Cardiopulmonary Bypass and ECMO in Japan

Takeshi Goto (Japan)

Department of Clinical Engineering, Hirosaki University School of Medicine and Hospital

#### 3. "When Less Is More"

Leonard Cruz (Singapore)

CTVS, National University Hospital Singapore

# 4. Efforts of Chinese Society of Extracorporeal Circulation to improve outcomes of ECLS

Xiaotong Hou (China)

Extracorporeal Circulation and Mechanical Circulation Support, Beijing AnZhen Hospital, Capital Medical University

#### 5. EVOLUTION OF THE EXTRACORPOREAL LIFE SUPPORT CIRCUITRY

Alok Kumar (India)

All India Institute of Medical Sciences

#### Moderator

• Tomoya Oshita (Japan)

Department of Clinical Engineering, The Sakakibara Heart Institute of Okayama

• Ricky Aditya (Indonesia)

Hasan Sadikin Hospital

• Rajendra Kokane (India)

The Indian Society of Extracorporeal Technology

#### (Poster Viewing)

### 15:40 ~ 16:40 Evening Seminar: Efforts to improve outcomes for patients with MCS

# 1. International Assessment of Mechanical Circulatory Support in cultural infrastructures across Asia Pacific~ a New era in MCS

Yuki Fujimura (Japan)

HF, Abbott Medical Japan LLC

#### 2. Blood Gas Management in ECPR: How Should It Be Done?

Takahiro Miki (Japan)

Department of Clinical Engineering, Nihon University Hospital

3. Post-cardiotomy MCS: which factors should be addressed to improve outcomes in adults Xin Li (China)

Cardiovascular Surgery, Zhongshan Hospital, Fudan University

4. Efforts to Improve Outcomes for Patients with Mechanical Circulatory Support (MCS)

Kanyarad Boonthim (Thailand)

Department of Surgery, King Chulalongkorn Memorial Hospital and the Thai Red Cross Society

#### Moderator

• Yuki Anno (Japan)

Clinical Engineering Department, Gunma Children's Medical Center

• Si Guim Goh (Singapore)

Department of CTVS, National University Hospital

• Lok Nath Tiwari (India)

Fortis Healthcare Ltd-Kolkata

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### 16:45 ~ 18:00 Cardiopulmonary bypass management for thoracic aortic surgery

1. Cardiopulmonary bypass management in pediatrics and adults during aortic surgery; Harapan Kita Hospital Experiences

Ayudia Putri (Indonesia)

National Cardiac Center Harapan Kita Hospital

# 2. Cardiopulmonary bypass management for thoracic aortic surgery

Si Guim Goh (Singapore)

Department of CTVS, National University Hospital

# 3. Cardiopulmonary bypass Management in Thoracic Aortic Surgery

Carlito Castrence D. Alzate (the Philippines)

Cebu Doctors University Hospital

### 4. Cardiopulmonary bypass management for thoracic aortic surgery

Ting Wu (China)

Tianjin Chest Hospital

### 5. Total arch replacement with mild hypothermia

Jinkwon Lee (Korea)

Bucheon Sejong Hospital

#### Moderator

Tomohisa Takeichi (Japan)
Clinical Engineering, Kita-harima Medical Center

• Rajeev Gupta (India)

Dept of CTVS, AllMS New Delhi

# 18:00 ~ Closing

#### Poster

1. Impacts of pulsatile perfusion and normothermia during CPB on maternal and fetal outcomes in pregnant women undergoing cardiac surgery

Fumin Yu (China)

Guangdong Provincial People's Hospital, Guangdong Academy of Medical Sciences, Southern Medical University

2. Association between Mean Arterial Pressure and Acute Kidney Injury in Patients Undergoing Oxygen Delivery-Guided Perfusion Strategies

Yuki Minami (Japan)

Department of Clinical Engineering, Juntendo University Hospital

3. Can thromboelastography and a global hemostasis assay be used to evaluate hemostatic ability during cardiopulmonary bypass surgery?

Masashi Tagaya (Japan)

Department of Medical Engineering, National Hospital Organization Kure Medical Center

4. Outcomes and complications of Impella versus IABP in cardiopulmonary bypass weaning failure

Masaya Hori (Japan)

Department of Clinical Engineering, Hirosaki University School of Medicine and Hospital

5. Development and Evaluation of an Automated Venous Reservoir Level Detection System Using Computer Vision for Cardiopulmonary Bypass

Kiyotaka Fujii (Japan)

Kitasato University School of Allied Health Sciences

6. Impact of Mini-Extracorporeal Circulation on Nitric Oxide and Renin Dynamics: A Prospective Observational Study

Chen Ting Yu (Taiwan)

National Taichung University of Science and Technology

7. Multilayer Perceptron-based Model for Estimating Hemoglobin Concentration at Initiation of Cardiopulmonary Bypass Using Case Records

Shun Takahashi (Japan)

Department of Biomedical Engineering, Graduate School of Medical Science, Fujita Health University

8. Colloid Oncotic Pressure in Conventional vs. Minimal Invasive Extracorporeal Circulation and Renal Implications

Liu Chun Hung (Taiwan)

Asia University hospital

9. Combined Antegrade Cerebral and Retrograde Inferior Vena Cava Perfusion in Aortic Arch Surgery: A single Center's Strategy

Yan Liu (China)

Wuhan Asia Heart Hospital

10. Clinical practice of low-intensity anticoagulation in adult VA-ECMO: single center experience Yan Liu (China)

Wuhan Asia Heart Hospital

11. The comparison outcomes between Modified Del Nido and Standard Cardioplegia with Hemoconcentrator during Cardiopulmonary Bypass Surgery

Kanokwan Demeekul (Thailand)

Department of Cardio-Thoracic Technology, Faculty of Allied Health Sciences at Naresuan Univ.

12. Experimental Study on Heat Exchange Performance in Adult Membrane Oxygenators Fumio Chiba (Japan)

Department of Medical Informatics and Management, Hokkaido Information University

13. Use of a double lumen venous cannula in hybrid V-AV ECMO for circulatory failure in a pediatric lung transplant candidate

Hideo Kurosawa (Japan)

Department of Clinical Engineering, The University of Tokyo Hospital

14. ECMO-Assisted Multiorgan Maintenance in Brain-Dead Donor: A Case Report Enabling Successful Transplantation of Four Recipients

Qian Yan (China)

Extracorporeal Circulation Dept, Fuwai Hospital Chinese Academy of Medical Sciences, Shenzhen

15. Evaluation of cerebral blood flow distribution during selective cerebral perfusion using a tissue oxygen saturation monitor

Go Sato (Japan)

Juntendo University Hospital

16. The Effects on Organs Function of Different Oxygen Partial Pressure Management in Neonates peri-Cardiopulmonary Bypass Period

Ju Zhao (China)

Extracorporeal Circulation and Mechanical Circulation Support, Beijing AnZhen Hospital, Capital Medical University

17. The impact of intraoperative hemoperfusion on acute kidney injury prevention after type A aortic dissection surgery repair

Zi jian He (China)

Cardiovascular surgery, Guangdong Cardiovascular Institute, Guangdong Provincial People's Hospital

18. Case report: Inflow cannula stenosis requiring HM3 pump exchange -HM3 parameters changes-Jumpei Shimoda (Japan)

Department of Clinical Engineering, Nippon Medical School Hospital

19. The abdominal rSO<sub>2</sub> monitoring was useful during CPB in surgical repair of left isomerism with anomalous system venous connections

Yayoi Kikawada (Japan)

Department of Clinical Engineering, Nippon Medical School Hospital

20. Status and Safety of Fresh Frozen Plasma Administration During Cardiopulmonary Bypass in Japan

Yuki Anno (Japan)

The Japanese Society of Extra-Corporeal Technology in Medicine

21. Standalone Air Removal Performance of Oxygenators: A Comparative Study Under Closed-Loop Conditions

Toru Yasuda (Japan)

Dept. of Clinical Engineering, Jichi Med Univ. Saitama MC

22. Cardiopulmonary Bypass (CPB) Strategy for Infant Distal Arch Pseudoaneurysm Repair Using Deep Hypothermic Open Proximal Anastomosis

Shinya Wani (Japan)

National Cerebral and Cardiovascular Center

23. Effect of Different Heparin Administration Methods on Activated Clotting Time During Cardiopulmonary Bypass

Osamu Sagae (Japan)

Department of Clinical Engineering, Hanaoka Seishu Memorial Hospital

24. Factors Associated with Heparin Rebound After Cardiac Surgery Using Cardiopulmonary Bypass

Ryuki Kimura (Japan)

Department of Medical Engineering, Hamamatsu University School of Medicine

25. Clinical Outcomes of Femoral and Subclavian Cannulation in MICS: A Single-Center Experience Kohei Nagashima (Japan)

Department of Clinical Engineering, Toranomon Hospital

26. Bridging the Evidence Gap: A Clinical Study on Transmembrane Pressure Monitoring and Hemolysis Reduction in ECLS

Shyenlin Tsai (Taiwan)

Department of Cardiovascular Surgery, Taoyuan Armed Forces General Hospital