

Nov. 27, 2026 (Fri)

Day 1

APSAO Annual Professional Society for Artificial Organs and Prosthetics 27-28 November 2024			Mechanical Session Room 1			Mechanical Session Room 2			Room 3		
13:00-14:30	#	Session M1-1: Renal support		#	Session M2-1: Auditory prostheses		#	Session B1-1: Stem cell therapy for organ failure			
	1	Innovations in intermittent hemodialysis and continuous renal replacement therapies: machines, filters, and monitoring	Seong Geun Kim	1	Signal Processing and Coding Strategies: Innovations in Speech and Music Perception	Fang-Gang Zeng	1	Commercial stem cell products for organ failure: manufacturing, quality control, and regulatory experience	Prof. Andrés Caicedo		
	2	Frailty and sarcopenia in patients under extracorporeal kidney support	趙家德Chia-Ter Chao	2	Middle Ear and Bone Anchored Implants: Mechanics, Indications, and Long-term Pediatric Outcomes	吳振吉Chen-Chi Wu	2	iPSC-Based Biohybrid Implants for Inner Ear Regeneration: Toward Next-Generation Artificial Auditory Organs	許益超Yi-Chao Hsu		
	3	Clinical perspectives on anticoagulation and membrane biocompatibility in extracorporeal renal support	Masaki Hara	3	Cochlear Implant as a Neuroprosthesis: From Hearing Restoration to Spatial Hearing Reconstruction	Tadao Yoshida	3	RegDerm as an organoid scaffold for regenerative medicine	黃玲惠Lynn L.H. Huang		
	4	Industry & engineering update: next generation CRRT/, smart devices, and connectivity	Mitchell Davies	4	Auditory Brainstem Implants(ABI): The Malaysian Experience	Ing-Ping Tang	4				
14:30-15:00	Coffee break			Coffee break			Coffee break				
15:00-16:30	#	Session M1-2: Respiratory support		#	Session M2-2: Visual prostheses		#	Session B1-2: Extracellular vesicles and xenotransplant			
	1	Mechanical respiratory support and artificial lung technologies: membrane oxygenators, pumpless devices, and ECCO2R	Simon Wai Ching Sin	1	Retinal prostheses: epiretinal and subretinal devices, electrodes, and surgical approaches	邱士華Shih-Hwa Chiou	1	TBD	陳怡文Yi-Wen Chen		
	2	New insights about different modalities of respiratory support with V-V ECMO	Roberto Lorusso	2	Retinal organoid transplantation- clinical application and approaches	陳達慶Ta-Ching Chen	2				
	3	Ventilation and gas exchange management on ECMO: strategies to protect lung and right ventricle	Ichiba Shingo	3	Recent Advances in Retinal Prostheses.	賴佐庭Tso-Ting Lai	3				
	4	Future engineering and industry innovations in respiratory and lung assist systems: new membrane materials, compact ECMO/oxygenator platforms, and digital monitoring solutions	Jae-Seoung Jung	4	Visual rehabilitation after treatment	蔡麗婷Li-Ting Tsai	4	Exosome 2.0, Next-Gen Drug Delivery Platform for Innovative Biotherapeutics	Ting-Hsiang Wu		
16:30-18:00	The MCS Summit: Integrating Driveline Best Practices and Interdisciplinary Team Development "Dress to Impress: The Art & Science of Driveline Wound Care"			the detail procedure of NRP							
	TBD		Yu (Janet) Wu	TBD		Kim De La Cruz					





	2026 APSAO Asia-Pacific Society for Artificial Organs Congress 2026 27-29 November, 2026		Nov. 28, 2026 (Sat)			
			Day 2			
08:30-09:00			Opening Ceremony			
09:00-09:30			Keynote 1 Roberto Lorusso			
09:30-10:00			Keynote 2 Fang-Gang Zeng			
10:00-10:30			Keynote 3 Pascal Leprince			
10:30-11:00			Keynote 4 James McCully			
11:00-11:15	Coffee break					
	Mechanical Session		Mechanical Session		Biological Session	
	Room 1		Room 2		Room 3	
	# Session M1-3: Circulatory support		# Session M1-6: Training, teamwork, and future workforce		# Session B1-3: Mitochondrial transplantation and novel mitochondrial applications	
11:15-12:45	1 ECMO and short term mechanical circulatory support in cardiogenic shock/CPR: indications, cannulation strategies, and troubleshooting	Pranya Sakiyalak	1 Defining core competencies for MCS teams: surgeons, cardiologists, intensivists, perfusionists, nurses, and coordinators	蔡宜廷Yi-Ting Tsai	1 Topic Clinical Applications of Mesenchymal Stem Cells in Severe Lung Disease: From Mechanisms to Case Experience	王景甲Ching-Chia Wang
	2 Real world outcomes of temporary versus durable LVAD support: registry data, comparative effectiveness, and patient selection	Yang Hyun Cho	2 Empowering the Next Generation of ECMO Providers	Kenji Minatoya	2 Mitochondrial Transplantation in Acute Kidney Injury: Potential Application in Reperfusion Injury	林真福 Chen-Fuh Lam
	3 Mechanical circulatory support for HFpEF	Prof.Fukamachi Kiyotaka	3 Multidisciplinary communication and handover in complex MCS patients (from OR to ICU to ward to home)	Kim De La Cruz	3 MA-5: A Homing Strategy for Mitochondrial Energy Restoration in Renal Failure	游偉綸Wei-Hsuan Yu
	4 TBD	陳鑫Xin Chen	4 Short perspectives: what nurses, allied health, and industry partners need from each other to improve safety and patient experience	紀乃新Nai-Hsin Chi	4 The Path to Clinical Translation for Autologous Mitochondrial Transplantation	James D. McCully
12:45-13:45	Luncheon Symposium: Engineering and commercial innovations in mechanical circulatory support: next generation LVAD/TAH platforms, smart monitoring, and connectivity	Po-Lin Hsu	Luncheon Symposium		Luncheon Symposium	
	Mechanical Session		Mechanical Session		Biological Session	
	Room 1		Room 2		Room 3	
	# Session M1-4: Hemodynamics – principles and clinical impact		# Session M2-3: Liver and heart Resuscitation		# Session B1-4: 3D constructs and hybrid artificial–biological organs	
13:45-15:15	1 Hemodynamic foundations of mechanical circulatory support: preload, afterload, and ventricular–arterial coupling under device support	Sivathasan Cumaraswamy	1 Mechanical and bioartificial liver support systems: device types and mechanisms of action	Pascal Leprince	1 Study of osteogenesis and angiogenesis coupling mechanism for treatment of bone disease by using an innovative system of dynamic culture 3D printing vascularized bone organoid under mechanical stimulation	徐佳福Jia-Fwu Shyu
	2 Device–patient interaction: right ventricular function, pulmonary pressures, and systemic perfusion with LVAD/ECMO	Yasser Nassef	2 New Progress and Design in Artificial Liver		2 Hybrid Artificial–Biological Cartilage Constructs for Knee Osteoarthritis: Integrating Mechanobiology, Stem Cells and Platelet-Derived Extracellular Vesicles	Pan Pan Chong
	3 Hemodynamic optimization at the bedside: ramp tests, echo/pressure-guided speed setting, and weaning strategies	Satsuki Fukushima	3		3 TBD	楊憶暉 Yi-Huei Yang
	4 Unveiling the interplay between cardio-circulatory hemodynamics and veno-arterial ECMO approaches: from computational to clinical data.	Roberto	4		4 3D Bioprinting and Bioelectronics for Tissue Engineering	Wai Yee Yeong
15:15-15:45	Coffee break		Coffee break		Coffee break	
	# Session M1-5: Modeling and engineering		# Session M2-5: AI and decision support in mechanical support. “Digital twin”		# Session B1-5: Precision and systems biology for advanced therapies	
15:45-17:15	1 New Development in Cell Remodeling and Engineering	Shinozaki Koichiro	1 AI and Decision: ICU Design in the Future	John Fraser	1 Establishing a research program from bench to clinical for extracorporeal life support	Pauline Y Ng
	2 Cell Remodeling Related Topic (請講者自選)	Hwa Jin Cho	2 AI-Assisted Decision Support: From Development and Validation to Clinical Deployment	葉育彰Yu-Chang Yeh	2 Multi-Omics Analysis of Organoids Digital Microfluidic Technology in Precision Medicine	蔡孝恩Hsiao-En Tsai
	3 Mitochondrial Dysfunction in Advanced Heart Failure, Transplant Injury, and Multi-Organ Failure: From Toxicity to Targeted Therapy and Precision Medicine	Ryan Andal	3 Machine-learning models for risk prediction and complication detection in LVAD/ECMO patients	王植賢Chih-Hsien Wang	3 Data integration and modeling of biological responses to artificial organs and advanced therapies (basic/engineering). (Clinical decision making: when to choose stem cells, gene therapy, or exosomes for an individual patient)	YU-Ting Cheng
	4 Industry & engineering innovations: using modeling and digital twins to accelerate development and optimization of MCS devices (company–academic joint talk)	Tomohiro Nishinaka	4 Translating AI into products: regulatory, validation, and implementation challenges for commercial decision-support tools in MCS (company–academic joint presentation)	Hyunwook Kwon	4 Beyond the Cell: Translating the Therapeutic Potency of MSC-Derived Exosomes into Scalable Biomedical Applications	曾榮正Rong-Jeng Tseng



Nov. 29, 2026 (Sun.)

Day 3

07:30 – 08:30				Step-by-Step Mitochondrial Preparation and Further Applications	James MaCully
08:30–10:00		Mechanical Session		Biological Session	
		Room 1		Room 2	
	#	M2-4: Neural regeneration and nerve conduit		# Session B1-6: Translating biological therapies to the clinic	
	1	Engineering Cell Spheroids and Their Derived Matrix for Peripheral Nerve Regeneration	黃玠誠Chieh-Cheng Huang	1 Real-World Evidence: Generating Post-Market Insights for Advanced Therapies	Ichiba Shingo
	2	Artificial nerve wraps to enhance peripheral nerve recovery after trauma	陳思恒 Shihheng Chen	2 Digital Microfluidic Technology to Next Generation	吳東祐Tung-Yu Wu
	3	Bypass Allogeneic Acellular Nerve Graft Using Supercritical Extractor Technique in Rat Sciatic Nerve Neuroma-in-Continuity Model	Jinil Choi	3 Real world barriers: manufacturing, logistics, and cost in APSAO centers. Clinical application: how APSAO centers practically deliver stem cell or exosome therapy alongside ECMO, LVAD, or dialysis	Daniel Timms
	4	Peripheral nerve regeneration by Bio 3D nerve conduit using a bio-3D printer	Ryosuke Ikeguchi	4	
10:00–10:30		Coffee break		Coffee break	
10:30–11:30	#	Joint plenary: “Where do we go next?”			
	1	Short keynote 1: “Hybrid artificial organs: integrating mechanical devices with cells and tissues.”			Goro Matsumiya
	2	Short keynote 1: “Hybrid artificial organs: integrating mechanical devices with cells and tissues.”			John Fraser
	3	Panel discussion with surgeons, engineers, basic scientists, nurses, and industry on future APSAO priorities.			Akira Shiose
11:30–12:30		Closing & awards Best oral and poster awards (Mechanical & Biological tracks) Brief summaries from each track chair (M1, M2, B1, B2): “3 key messages” format Announcement of next APSAO host, handover ceremony, and final thanks			

