## International Symposium on Advanced Technology and 3D Printing in Orthopaedics

Date: 9 September 2023 (Saturday)

Venue: Shatin, Hong Kong

Organizing Committee		
Chairman	Prof. Patrick SH YUNG	
Committee Member	Prof. Louis CHEUNG, Prof. Elvis CS CHUI, Prof. Sheung Wai LAW, Prof. Ling QIN	

Invited Speakers Prof. Hong CAI	Associate Professor, Chief Physician, Department of Orthopaedics, Peking University Third Hospital, China
Prof. Igor DRSTVENSEK	Professor, Faculty of Mechanical Engineering, University of Maribor, Slovenia
Prof. Shaolong KUANG	Distinguished Professor, Shenzhen Technology University, China
Prof. Yuxiao LAI	Vice Director of Institute of Biomedical and Health Engineering, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China
Prof. Huashui LIU	Professor, Director of Orthopaedics, Central Hospital Affiliated to Shandong First Medical University, China
Prof. Max Qing-Hu MENG	Chair Professor & Department Chair, Department of Electronic and Engineering, Southern University of Science and Technology, China
Prof. Guoxing PEI	Dean, Southern University of Science and Technology Hospital, China
Prof. Hongxun SANG	Chairman, Department of Orthopaedics, Shenzhen Hospital of Southern Medical University, China
Prof. Jia YU	Associate Professor, Institute of Orthopaedics, Soochow University, China
Prof. Yu WANG	Associate Professor & Assistant Dean, School of Biological Science and Medical Engineering, Beihang University, China
Local Speakers Prof. Louis CHEUNG	Professor, Department of Orthopaedics and Traumatology, The Chinese University of Hong Kong
Prof. Kelvin CHONG	Clinical Associate Professor, Department of Ophthalmology and Visual Sciences, The Chinese University of Hong Kong
Prof. Elvis CHUI	Research Assistant Professor, Department of Orthopaedics and Traumatology, The Chinese University of Hong Kong
Prof. Kevin HO	Clinical Professional Consultant, Department of Orthopaedics and Traumatology, The Chinese University of Hong Kong
Mr. Ajax LAU	Advanced Practice Prosthetist-Orthotist, Prince of Wales Hospital
Prof. Sheung Wai LAW	Clinical Professional Consultant, Department of Orthopaedics and Traumatology, The Chinese University of Hong Kong
Prof. Wayne LEE	Assistant Professor, Department of Orthopaedics and Traumatology, The Chinese University of Hong Kong
Dr. Michael MAK	Associate Consultant, Department of Orthopaedics and Traumatology, Prince of Wales Hospital
Dr. Sibyl MAK	Adjunct Assistant Professor, Department of Mechanical Engineering, The University of Hong Kong
Prof. Michael ONG	Clinical Assistant Professor, Department of Orthopaedics and Traumatology, The Chinese University of Hong Kong
Prof. Ling QIN	Professor, Department of Orthopaedics and Traumatology, The Chinese University of Hong Kong
Dr. Haoran SUN	Chief Technology Officer, Koln 3D Technology (Medical) Limited

In alphabetical order of last name

This material/event is funded by the Professional Services Advancement Support Scheme of the Government of the Hong Kong Special Administrative Region.

Disclaimer: Any opinions, findings, conclusions or recommendations expressed in this material/any event organised under this project do not reflect the views of the Government of the Hong Kong Special Administrative Region or the Vetting Committee of the Professional Services Advancement Support Scheme

## International Symposium on Advanced Technology and 3D Printing in Orthopaedics

Day 1 - Symposium

Date: 9 September 2023 (Saturday)

Venue: 9/F Auditorium, CUHK Medical Centre, Shatin, Hong Kong

9 September 2023 (Saturday) 0830-1015				
The Hong Kong College Of Orthopaedic Surgeons Saturday Inter-hospital Meeting				
0830 – 0840	Opening Remarks	SW Law		
1. 3D Printing -	Orthopaedic Surgical Applications			
Moderators: L Cheung, M Ong				
0840 – 0855	Challenges and the Future of 3D Printing Application in Rehabilitation	SW Law		
0855 – 0910	When an Orthopedic Surgeon Meets 3D Printing	H Cai		
0910 – 0925	Metal 3D printing in medicine – a design and manufacturing perspective	S Mak		
0925 – 0940	Computer-assisted Upper Limb Deformity Correction	M Mak		
0940 – 0955	Computerized 3D Printing and Design in Prosthetic and Orthotic Devices	Ajax Lau		
0955 – 1015	Discussion	All		
1015 – 1025	Group Photo	All		
1025 – 1045	TEA BREAK	All		
2. Overview of 3D Printing Development				
Moderators: SW Law, L Qin				
1045 – 1100	3D Printing in China - Legislation and the Latest Development	H Cai		
1100 – 1115	Intelligent Orthopaedics – the Future is Coming	GX Pei		
1115 – 1130	Application of 3D Printing and Navigation in Spinal Surgery	HX Sang		
1130 – 1145	3D Printing - Opportunities and the Future in the Great Bay Area	L Qin		
1145 – 1200	New Development of Surgeon Oriented 3D Surgical Planning System	E Chui		
1200 – 1215	Metal-based 3D Medical Printing in HK and Belt & Road Region	HR Sun		
1215 – 1230	Metal in Biomedical Applications	I Drstvensek		
1230 – 1245	Discussion	All		
1245 – 1400	LUNCH			

## International Symposium on Advanced Technology and 3D Printing in Orthopaedics

Day 1 - Symposium

Date: 9 September 2023 (Saturday)

Venue: 9/F Auditorium, CUHK Medical Centre, Shatin, Hong Kong

3. Advanced A	3. Advanced Artificial and Imaging Applications					
Moderators: L	Cheung, E Chui					
1400 – 1415	Al Assisted Image Based Orthopaedic System	E Chui				
1415 – 1430	Characteristic Motion Patterns of the Knee Joint during a Weightbearing Flexion	J Yu				
1430 – 1445	Automatic System for Orbital Fracture Detection and 3D Printing	K Chong				
1445 – 1500	Osteogenic Magnesium Incorporated into PLGA/TCP Porous Scaffold by 3D Printing for Repairing Challenging Bone Defect	YX Lai				
1500 – 1515	Scoliosis in Hong Kong	W Lee				
1515 – 1530	Discussion	All				
1530 – 1545	TEA BREAK					
4. Robotics						
Moderators: E Chui, K Ho						
1545 – 1600	Surgical Robots in the GPT Era	Max Meng				
1600 – 1615	Advanced Surgical Robot Development in Trauma and Fracture Reduction	Y Wang				
1615 – 1630	Clinical Application of Robot-Assisted Minimally Invasive Treatment for Unstable Pelvic Ring Injury	HS Liu				
1630 – 1645	The Technology Evolution and Trends of Surgical Robot in Orthopaedics	S Kuang				
1645 – 1700	Application of Robotics in Adult Joint Replacement in Hong Kong	M Ong				
1700 – 1715	Discussion	All				
1715 – 1720	Closing Remarks	SW Law				