

International Symposium on the Applications of 3D Printing in Orthopaedics

Date: March 28 – 29, 2020 (Saturday & Sunday)

Venue: Prince of Wales Hospital

Organizing Committee

Chairman	Prof. Patrick SH YUNG		
Committee Member	Prof. Ling QIN Dr. Sheung Wai LAW Dr. Kwok Chuen WONG Prof. Christian FANG Dr. Yuk Wah HUNG Dr. Elvis CS CHUI	Secretarial and Technical Team Member	Ms. Cassia TANG Ms. Natalie CHIN Ms. Charis LAU Ms. Mandy TSE Ms. Roseanne HUANG Mr. Clemens CHEN

Invited Speakers

Prof. Hong CAI	Associate Professor, Chief Physician, Department of Orthopaedics, Peking University Third Hospital
Prof. Yuxiao LAI	Associate Professor, University of Chinese Academy of Sciences
Prof. Huashui LIU	Professor, Department of Traumatic Orthopaedics, Jinan Third People's Hospital
Dr. Tanawat VASEENON	Associate Professor, Department of Orthopaedics, Faculty of Medicine, Chiang Mai University
Prof. Jia YU	Associate Professor, Orthopaedic Institute, Soochow University

Local Speakers

Prof. Kelvin CHONG	Associate Professor, Department of Ophthalmology and Visual Sciences, The Chinese University of Hong Kong
Dr. Elvis CS CHUI	Manager, Computer Aided Surgical Modelling Laboratory, The Chinese University of Hong Kong
Prof. Christian FANG	Assistant Professor, Department of Orthopaedics and Traumatology, The University of Hong Kong
Dr. Yuk Wah HUNG	Associate Consultant, Department of Orthopaedics and Traumatology, Alice Ho Miu Ling Nethersole Hospital
Dr. Chun Man LAU	Resident, Department of Orthopaedics and Traumatology, Prince of Wales Hospital
Mr. Stanley LAU	Prosthetist-Orthotist, Queen Elizabeth Hospital
Dr. Sheung Wai LAW	Consultant, Department of Orthopaedics and Traumatology, Prince of Wales Hospital
Dr. Michael CK MAK	Associate Consultant, Department of Orthopaedics and Traumatology, Prince of Wales Hospital
Dr. Sibyl MAK	Chief Technology Officer, Koln 3D Medical
Prof. Ling QIN	Professor, Department of Orthopaedics and Traumatology, The Chinese University of Hong Kong
Dr. Kwok Chuen WONG	Consultant, Department of Orthopaedics and Traumatology, Prince of Wales Hospital

International Symposium on the Applications of 3D Printing in Orthopaedics

Day 1 - Preliminary program¹ - Symposium

Date: March 28, 2020 (Saturday)

Venue: Kai Chong Tong, Postgraduate Education Centre, Prince of Wales Hospital

March 28, 2020. Saturday

0900 – 0910	Opening remarks	P Yung
1. 3D printing applications - General clinical applications		
0910 – 0925	Challenges and the future of 3D printing application in rehabilitation	SW Law
0925 – 0940	Metal printing development and applications	S Mak
0940 – 0955	Application of 3D printing in Orthotics & Prosthetics	S Lau
0955 – 1010	Automatic system for orbital fracture detection and 3D printing	K Chong
1010 – 1025	Computerized software platform for osteotomy planning	E Chui
1025 – 1040	Discussion	All
1040 – 1055	BREAK	
2. Keynote Lectures		
1055 – 1110	3D Printing - Opportunities and the future in the Great Bay Area	L Qin
1110 – 1125	3D Printing in China - Legislation and the Latest development	H Cai
1125 – 1140	Use of 3D printing in Orthopaedic tumor surgery	KC Wong
1140 – 1155	3D printing application in orthosis	J Yu
1155 – 1210	Introduction of OLC and 3D printing services	SH Yung
1210 – 1230	The 20 th Anniversary Ceremony of Orthopaedic Learning Centre	All
1230 – 1330	LUNCH	
3. 3D printing applications - Joint surgeries and osteotomies		
1330 – 1345	Application of semi-personalised prosthesis in joint surgery	H Cai
1345 – 1400	Surgeon as a designer in complex surgery planning	C Fang
1400 – 1415	Application of metal printing in high tibial osteotomy	YW Hung
1415 – 1430	Application of 3D printing in ankle surgery Thailand	T Vaseenon
1430 – 1445	3D printing assisted upper limb osteotomy	M Mak
1445 – 1500	Discussion	All
1500 – 1515	BREAK	
4. Engineering and development		
1515 – 1530	Osteogenic magnesium incorporated into PLGA/TCP porous scaffold by 3D printing for repairing challenging bone defect	YX Lai
1530 – 1545	Biomechanics of the foot and ankle based on FEA and animal model	J Yu
1545 – 1600	The application of robot-assisted combined with 3D printing for minimally-invasive internal fixation treatment of pelvic ring injuries	HS Liu
1600 – 1615	Population based knee prosthesis design	E Chui
1615 – 1630	Novel application of 3D printing to development of a homemade posterior-stabilized knee cement spacer	L Lau
1630 – 1645	Discussion	All
1645 – 1700	Closing remarks	P Yung
1700 – 2030	FACULTY DINNER	

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Day 2 - Preliminary program² - Workshop

Date: March 29, 2020 (Sunday)

Venue: Orthopaedic Learning Centre, 1/F, Li Ka Shing Specialist Clinics North Wing, Prince of Wales Hospital

March 29, 2020. Sunday

0830 – 0900	Workstation installation	All
1. Materialise Workshop – Mimics & 3matic		
0900 – 1030	Segmentation and 3D manipulation <ul style="list-style-type: none"> - Segmentation - 3D model generation - Surgery simulation - Case demonstration 	C Fang / E Chui
1030 – 1040	Discussion	All
1040 – 1055	BREAK	
2. 3D Freeware workshop – 3D slicer & Mesh Mixer		
1055 – 1225	Segmentation and 3D manipulation <ul style="list-style-type: none"> - Segmentation - Surgery simulation - Realignment planning - Case demonstration 	C Fang
1225 – 1235	Discussion	All
1235 – 1335	LUNCH	
3. Osteotomy planning Workshop – Web platform		
1335 – 1505	High tibial osteotomy planning demonstration <ul style="list-style-type: none"> - Coordinate system setup - Cutting planning - Screw planning - Realignment planning - Jig design 	E Chui
1505 – 1515	Discussion	All
1515	END OF PROGRAM	