

HKU International Musculoskeletal Tumour Course

1/F, Boardroom,
 Daniel & Mayce Yu Administration Wing,
 Faculty of Medicine Building,
 21 Sassoon Road, Pokfulam, Hong Kong

 $8 \, {}^-_{\text{Fri}} \, 9_{\text{Sat}} \, \text{DEC} \, 2023$



PROGRAM BOOK









CONTENTS

Welcome Message	3
Organizing Committee	6
Overseas and Regional Speakers	7
Local Speakers	3
Moderators	Ç
Program	10
Accreditations	20
Acknowledgements	21

WELCOME MESSAGE

DEPARTMENT CHAIRPERSON



Prof. Jason CHEUNG
Department Chairperson
Department of Orthopaedics and Traumatology
School of Clinical Medicine
The University of Hong Kong

It gives me immense pleasure to welcome you to the 5th HKU International Musculoskeletal Tumour Course. After two years of coronavirus-induced suspension in 2019 and 2020, we were finally able to host the course at the Combined 60th Anniversary Scientific Meeting and the 17th Hong Kong International Orthopaedic Forum in 2021 with great success.

This year, we are hosting the first face-to-face Musculoskeletal Tumour Course since the pandemic. We continue our mission to promote musculoskeletal oncology knowledge across the region. This two-day course will provide you with a comprehensive review of various conditions within Orthopaedic Oncology and an introduction to the principles of management in Musculoskeletal Tumours. I would like to extend a special thanks to our local and international faculties for sharing their wealth of expertise, and to our sponsors for their generous support in making this course a reality.

Enjoy the course and I look forward to seeing you in person!

WELCOME MESSAGE

COURSE DIRECTOR



Dr. Kenneth HO
Honorary Clinical Assistant Professor
Department of Orthopaedics and Traumatology
School of Clinical Medicine
The University of Hong Kong

On behalf of the organizing committee, I am delighted to welcome you to the "The 5th HKU International Musculoskeletal Tumour Course".

Musculoskeletal Tumours are uncommon malignancies, hence it is often overlooked. However, due to the hard work of our pioneers, there have been quite a lot of developments and advances in this field in recent years. Some of them have revolutionized our current management strategies. This unique course aims to provide a platform for medical professionals, who have an interest in this area, to learn the basics of musculoskeletal tumour surgery, as well as the latest advances in this sub-specialty. We have invited both local and overseas professors and experts to share their views and experiences on musculoskeletal tumours.

In the past few years, the world has been overshadowed by the Covid pandemic with lockdowns, travel disruptions and restrictions. Academic meetings were forced to be held online. This year is the first face-to-face meeting after the pandemic, and we are eagerly looking forward to having more personal interactions as we have before. Finally, welcome you onto the course and we very much look forward to your enthusiastic participation.

WELCOME MESSAGE

COURSE DIRECTOR



Prof. Pietro RUGGIERI
Professor
Department of Orthopedics and Orthopedic Oncology
University of Padova, Italy

Six years after the foundation of the International Musculoskeletal Tumour Course of University of Hong Kong in 2017, I am very excited to welcome you to the 5th edition of this valuable event, organised in cooperation with the University of Padova.

The University of Hong Kong is an excellent Institution and I am honoured to be part of the prestigious Faculty of this Course, addressed to those (orthopaedic surgeons, radiologists, pathologists, clinical oncologists and medical oncologists) who wish to review and update their knowledge in the field of musculoskeletal oncology.

I would like to express my deep appreciation to the Organizing Committee and especially the Co-Chairman Dr. Kenneth Wai Yip HO, presenters and participants for their laudable effort and commitment.

With the end of pandemic, we all can be totally face-to-face and this allows a better exchange of information and favours friendship, which adds important value to our meetings and courses.

Let me conclude saying that I am sure that the 5th HKU Meeting International Musculoskeletal Tumour Course will be fruitful and successful for all participants, and I wish all of you a good time in Hong Kong.

ORGANIZING COMMITTEE

Course Directors

Dr. Kenneth HO

Department of Orthopaedics and Traumatology, School of Clinical Medicine,

The University of Hong Kong

Prof. Pietro RUGGIERI

Department of Orthopedics and Orthopedic Oncology,

University of Padova, Italy

Members

Dr. Albert LAM

Department of Orthopaedics and Traumatology, School of Clinical Medicine,

The University of Hong Kong

Dr. Anderson LEUNG

Department of Orthopaedics and Traumatology, School of Clinical Medicine,

The University of Hong Kong

Dr. Raymond YAU

Department of Orthopaedics and Traumatology, School of Clinical Medicine,

The University of Hong Kong

Secretarial Support

Ms. Cherlyne CHUNG

Department of Orthopaedics and Traumatology, School of Clinical Medicine,

The University of Hong Kong

Ms. Cherry CHUNG

Department of Orthopaedics and Traumatology, School of Clinical Medicine,

The University of Hong Kong

Ms. Carmen LIU

Department of Orthopaedics and Traumatology, School of Clinical Medicine,

The University of Hong Kong

OVERSEAS AND REGIONAL SPEAKERS

Prof. Andreas LEITHNER

Head and Professor
Department of Orthopaedic Surgery
Medical University of Graz

Prof. Doug LETSON

Physician in Chief / Ortho Oncologist Sarcoma and Hospital Administration H. Lee Moffitt Cancer Center and Research Institute

Prof. Xiao Hui NIU

Chair and Professor
Department of Orthopaedic Oncology
Beijing Ji Shui Tan Hospital
Peking University

Prof. Pietro RUGGIERI

Professor
Department of Orthopedics and Orthopedic Oncology
University of Padova

Dr. John SHIN

Associate Professor
Department of Neurosurgery
Massachusetts General Hospital
Harvard Medical School

Prof. Jin WANG

Professor and Chair Musculoskeletal Oncology Department Sun Yat-sen University Cancer Center

Prof. PQ WU

Chief, Professor
Orthopaedics
National Yang Ming Chiao Tung University

LOCAL SPEAKERS

Dr. Florence CHEUNG

Pathology Specialist Clinical Laboratory Gleneagles Hospital Hong Kong

Dr. Gerry KWOK

Honorary Clinical Tutor
Department of Medicine
The University of Hong Kong

Dr. Vince LAU

Consultant Radiologist
Department of Radiology
Gleneagles Hospital Hong Kong

Dr. Dennis LEUNG

Consultant
Department of Clinical Oncology
Queen Mary Hospital

Dr. Ka Lok MAK

Consultant
Department of Orthopaedics and Traumatology
Queen Elizabeth Hospital / Hong Kong Children's Hospital

Dr. Raymond YAU

Honorary Clinical Assistant Professor Department of Orthopaedics and Traumatology School of Clinical Medicine The University of Hong Kong

Dr. Maximus YEUNG

Clinical Assistant Professor Department of Pathology School of Clinical Medicine The University of Hong Kong

MODERATORS

Dr. Edelyn S AZURIN

Clinical Associate
Department of Orthopaedics and
Traumatology
School of Clinical Medicine
The University of Hong Kong

Dr. Calvin CHIU

Associate Consultant
Department of Orthopaedics and
Traumatology
Prince of Wales Hospital

Dr. Kenneth HO

Honorary Clinical Assistant Professor Department of Orthopaedics and Traumatology School of Clinical Medicine The University of Hong Kong

Dr. Gerry KWOK

Honorary Clinical Tutor
Department of Medicine
The University of Hong Kong

Dr. Albert LAM

Honorary Associate Professor Department of Orthopaedics and Traumatology School of Clinical Medicine The University of Hong Kong

Dr. Anderson LEUNG

Honorary Tutor
Department of Orthopaedics and
Traumatology
School of Clinical Medicine
The University of Hong Kong

Dr. Gabriel LEUNG

Honorary Clinical Tutor
Department of Orthopaedics and
Traumatology
School of Clinical Medicine
The University of Hong Kong

Dr. Tony SHEK

Honorary Clinical Associate Professor Department of Pathology School of Clinical Medicine The University of Hong Kong

Dr. Douglas WONG

Honorary Clinical Tutor
Department of Orthopaedics and
Traumatology
School of Clinical Medicine
The University of Hong Kong

Dr. Raymond YAU

Honorary Clinical Assistant Professor Department of Orthopaedics and Traumatology School of Clinical Medicine The University of Hong Kong

Dr. Maximus YEUNG

Clinical Assistant Professor Department of Pathology School of Clinical Medicine The University of Hong Kong

PROGRAM

8 DECEMBER 2023 (DAY 1)

Time	Topic	Speaker
09:00-09:05	Opening remarks	Prof. Pietro RUGGIERI
	Session 1: Basic assessments (1)	
	Moderators: Dr. Kenneth HO, Dr. Douglas WONG	
09:05-09:35	Principles of bone imaging: when should we be alert?	Prof. Andreas LEITHNER
09:35:10:05	Principles of soft tissue imaging	Prof. Doug LETSON
10:05-10:35	No-touch lesions	Prof. Pietro RUGGIERI
10:35-10:50	Q&A	
10:50-11:05	Break	
10.00 11.00	Session 2: Basic assessments (2)	
	Moderators: Dr. Albert LAM, Dr. Tony SHEK	
11:05-11:35	Biopsy principles	Prof. PQ WU
11:35-12:05	Principles of bone pathology	Dr. Florence CHEUNG
12:05-12:25	Principles of soft tissue pathology	Dr. Maximus YEUNG
12:25-12:40	Molecular and genetic study in MSK tumour	Dr. Maximus YEUNG
12:40-12:50	Q&A	
12:50-13:50	Lunch break	
	Session 3: Malignant bone tumour	
	Moderators:	
13:50-14:20	Dr. Edelyn S AZURIN, Dr. Raymond YAU Osteosarcoma and principles of management	Prof. Xiao Hui NIU
14:20-14:50	Chondrosarcoma and principles of management	Prof. Pietro RUGGIERI
14:50-15:20	Sacral tumour	Dr. John SHIN
15:20-15:30	Q&A	Dr. John Grinv
15:30-15:45	Break	
15:45-17:00	Session 4: Case discussion (3-4 cases)	
13.43-17.00	Moderators:	
	Dr. Anderson LEUNG, Dr. Gabriel LEUNG	
	Panel:	
	Prof. Andreas LEITHNER, Prof. Doug LETSON,	
	Prof. Xiao Hui NIU, Prof. Pietro RUGGIERI,	
17:00-17:05	Dr. John SHIN, Prof. Jin WANG, Dr. Feng WEI Closing remarks and announcement	
17.00-17.03	Closing remarks and announcement	1
		_

PROGRAM

9 DECEMBER 2023 (DAY 2)

Time	Topic	Speaker	
09:00-09:05	00-09:05 Opening remarks Dr. Kenneth		
	Session 5: Management principles		
	Moderators: Dr. Calvin CHIU, Dr. Anderson LEUNG	5 () () () ()	
09:05-09:35	Resection of bone tumour and new advances	Prof. Xiao Hui NIU	
09:35-10:05	Systemic treatment in MSK tumour: Oncologist's	Dr. Gerry KWOK	
10:05-10:35	perspective Radiotherapy in MSK tumour	Dr. Dennis LEUNG	
10:35-10:45	Q&A		
10:45-11:00	Break		
	Session 6: Bone and soft tissue reconstruction		
	Moderators: Dr. Gerry KWOK, Dr. Douglas WONG		
11:00-11:30	Prosthetic bone reconstruction	Prof. Doug LETSON	
11:30-12:00	Biological bone reconstruction	Prof. PQ WU	
12:00-12:20	Soft tissue reconstruction	Dr. Raymond YAU	
12:20-12:30	Q&A		
12:30-13:30	Lunch break		
	Session 7: Other tumours		
13:30-14:00	Moderators: Dr. Kenneth HO, Dr. Gabriel Leung Giant cell tumour	Prof. Jin WANG	
14:00-14:30	Bone metastasis: should we treat patients with oligometastases differently?	Prof. Andreas LEITHNER	
14:30-14:50	Soft tissue sarcoma and surgical planning	Prof. Doug LETSON	
14:50-15:10	Interventional radiology	Dr. Vince LAU	
15:10-15:20	Q&A		
15:20-15:35	Break		
15:35-16:55	Session 8: Case discussion (3-4 cases)		
	Moderators:		
	Dr. Edelyn S AZURIN, Dr. Raymond YAU		
	Panel: Prof. Andreas LEITHNER, Prof. Doug LETSON,		
	Dr. Ka Lok MAK, Prof. Xiao Hui NIU,		
	Prof. Pietro RUGGIERI, Prof. Jin WANG,		
10 55 17 05	Prof. PQ WU	5 5 11/11/	
16:55-17:00	Closing remarks and announcements	Dr. Raymond YAU	

CUSTOMIZED ONE-STOP MEDICAL SOLUTIONS



TUMOR & TRAUMA AND REALIGNMENT

ABOUT US

IMPLANTS I PSIs I REHABILITATIVE SOLUTIONS

Koln 3D is a pioneering metal 3D-printing medical supplier, specialized in providing one-stop healthcare solutions.

Bridging the expertise of doctors and bioengineers, Koln 3D employs the latest AI and robotic technologies to produce case-specific medical devices, including implants, surgical jigs and instruments. Koln 3D products improve surgical outcomes with patient-matched and case-specific designs. Since 2016, over 80 cases have been successfully conducted with our personalized solutions.

ONE-STOP **INNOFACTURE**

DOCTOR-BIOENGINEER COLLABORATION



1. CT Scanning & Diagnosing



2.DICOM Segmentation



3. Surgical Planning





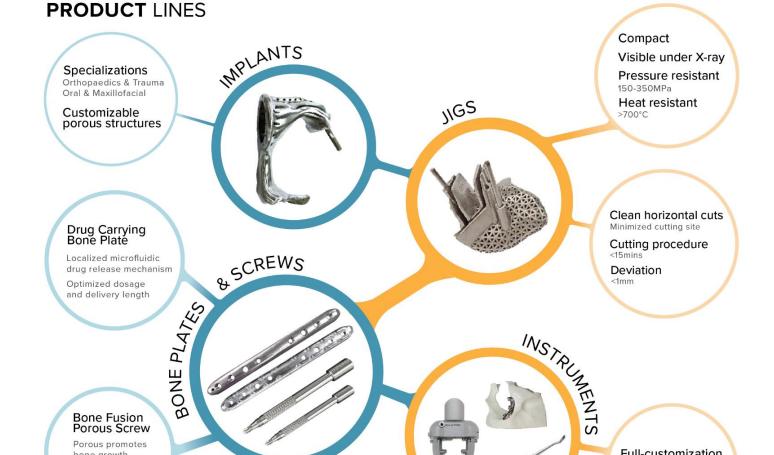
4. Product Design



5.3D-Printing & Finishing



6. Packaging & Delivery



OUR METAL 3D-PRINTING POWDERS

Provided exclusively by Sandvik Osprey Ltd.

Porous Screw Porous promotes

bone growth

Optimized bone-implant

intergration

- KOLN3DCobaltChrome (ASTM F75)
- KOLN3DTi6Al4VGrade23 (ASTM F136)
- KOLN3D316ML (ASTM F138)

- Biocompatible ASTM standard materials
- Manufacturing site compliant to ISO 13485:2016
- ISO 10993-4,5,6 compliant

Haemocompatibility, Cytocompatibility, Implantation Safe



: Find us: 🚟 medical.koln3d-tech.com

Koln 3D Technology (Medical) Limited Room 322, 3/F Core Biulding 2, Hong Kong Science Park, Shatin, Hong Kong

Koln 3D Medical Manufacture Limited Unit 402, 4/F, MARS Centre, 2 Dai Wang Street, Tai Po, N.T., Hong Kong

EU BRANCH:

Koln 3D Technology SA Rue de la Pierre-à-Mazel 39, 2000 Neuchâtel, Switzerland

EU WORKSHOP:

Koln 3D Technology SA Boulevard des Eplatures 64, 2400 La Chaux-de-Fonds, Switzerland

Full-customization

Size, Weight & Materials

Engraving Service

IMPLANTS & PSIs

CASE OVERVIEW: TUMOR & TRAUMA AND REALIGNMENT



SACRUM IMPLANT

Sacral reconstruction

Osteoinductive porous structure Optimzed implant integration Intramedullary rods Fixed on the implant

Customized special design

Smooth design on the back & T5 fixture

CRANIAL IMPLANT

Cranioplastry

KOLN3DTi6AI4V Titanium alloy

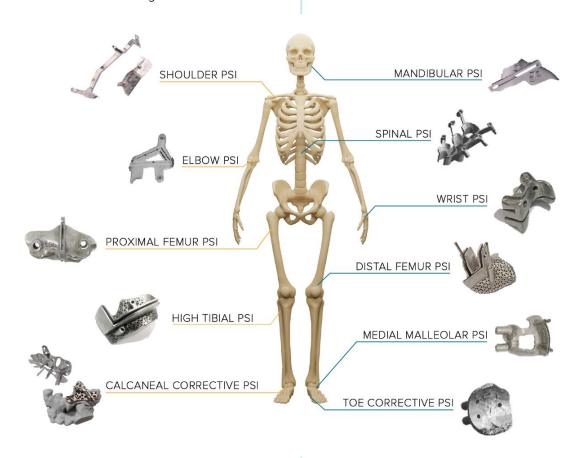
Sturdy and lightweight

Precision additive manufacture

0.8mm thickness & 0.5mm edges

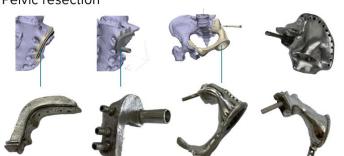
Customized special design

Porous size < 1mm2 holes & extra screw holes



PELVIC IMPLANT & PSI SET

Pelvic resection



STERNUM IMPLANT

Sternum replacement

KOLN3DTi6AI4V Titanium alloy

Sturdy and lightweight

Osteoinductive porous structure

Allow flow of body fluids

Customized special design

Allow ribs to move & extra screw holes



medical.koln3d-tech.com

Koln 3D Technology (Medical) Limited Room 322, 3/F Core Biulding 2, Hong Kong Science Park, Shatin, Hong Kong

WORKSHOP:

Koln 3D Medical Manufacture Limited Unit 402, 4/F, MARS Centre, 2 Dai Wang Street, Tai Po, N.T., Hong Kong

EU BRANCH:

Koln 3D Technology SA Rue de la Pierre-à-Mazel 39, 2000 Neuchâtel, Switzerland

EU WORKSHOP: Koln 3D Technology SA Boulevard des Eplatures 64, 2400 La Chaux-de-Fonds, Switzerland







One platform. Better surgery.

Optimized by Siemens Cios Spin, the Pulse platform integrates multiple enabling technologies to improve workflow, reduce variability and increase the reproducibility of surgical outcomes.



Minimally disruptive surgery. Reproducible technique.

MASTLIF is an efficient and reproducible technique that offers the same advantages as traditional TLIF, but with the added benefit of less tissue disruption and therefore potentially less postoperative pain and quicker recovery. The pedicle-based retractor facilitates maximum visualization and access to anatomy via modular screw construct.



One position. One comprehensive system.

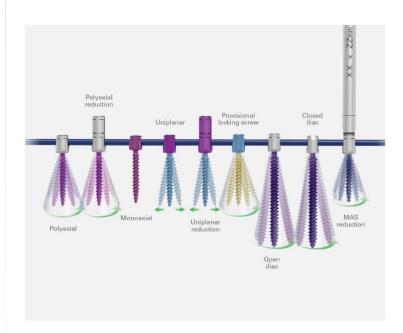
X360 is a comprehensive lateral approach to single-position surgery that leverages advanced techniques and technologies to deliver patient-specific care while enhancing OR workflow and efficiency.



Preclinical data on file. Data may not be representative of clinical results. TR 9604787

Dependable strength. Procedural versatility. Enhanced simplicity.

The Reline portfolio is an innovative posterior fixation technology designed to preserve and restore spinal alignment. The seamless and versatile design of Reline provides one system to address even the most difficult pathologies.







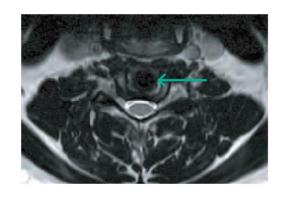
The most clinically effective cervical total disc replacement (cTDR)

The cTDR with the highest overall success rate at 1- and 2-levels1

Radiologic design

Enhanced visualization through magnetic resonance imaging (MRI)

- Uniquely composed of PEEK on ceramic materials allowing for enhanced visualization through MRI postoperatively as compared to competitive devices
- MRI spares radiation

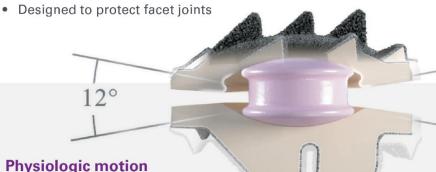




Anatomic disc heights

Disc height sizes correlate with patient anatomy

- Includes 4, 5 and 6 mm to prevent over stuffing
- · 4 mm is the lowest disc height in the market1

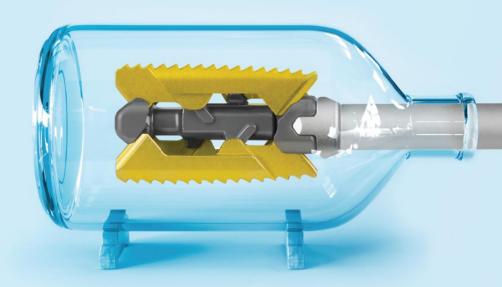


Variable center of rotation

· Designed to match the natural motion of the spine. The unique biconvex, dual articulation allows for pure translation, coupled motion patterns, and a variable center of rotation at each treated level.

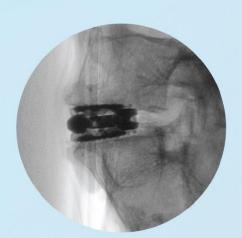


Start Small. Think Big.









RISE®

POSTERIOR LUMBAR FUSION DEVICE

7mm starting height. Up to 7mm expansion.

Expanding surgical solutions to advance patient care.

GlobusMedical.com/ExpandableTechnology





Medtronic

OsteoCool™ RF Ablation System

Swift, significant, sustained pain relief and improved quality of life

Disease state awareness

Bone is invaded in 60-80% of patients with metastatic disease,¹ most frequently among patients with primary malignancies of the breast, prostate, and lung.² Bone is the third most common location to where cancerous cells metastasize.³

The most frequent complaint of patients with skeletal metastases is the pain associated with the disease – occurring in 79% of patients.⁴ The pain is usually refractory and affects quality of life.⁵ Metastatic lesions in the spine may become painful due to neural compression, pathologic fracture, or other biochemical mechanisms.⁶

Image-guided percutaneous ablation of bone metastases has been shown to provide palliative treatment for patients with metastatic bone cancer.^{2,3,7}

References

I. Schulman KL, Kohles J. Economic burden of metastatic bone disease in the U.S. Cancer. 2007;109(11):2334-2342. 2. Kurup AN, Callstrom MR, Ablation of skeletal metastases: current status. J Vasc Interv Radiol. 2010;21(8 Suppl):S242-S250. 3. Guenette JP, Lopez MJ, Kim E, Dupuy DE. Solitary painful osseous metastases: correlation of imaging features with pain palliation after radiofrequency ablation — a multicenter american college of radiology imaging network study. Radiol. 2013;268(3):907-915. 4. Janjan N, Lutz ST, Bedwinek JM, et al. Therapeutic guidelines for the treatment of bone metastasis: a report from the American College of Radiology Appropriateness Criteria Expert Panel on Radiation Oncology. J Palliat Med. 2009;12(5):417-426. 5. Nakatsuka A, Yamakado K, Maeda M, et al. Radiofrequency ablation combined with bone cement injection for the treatment of bone malignancies. J Vasc Interv Radiol. 2004;15(7):707-712. 6. Wallace AN, Greenwood TJ, Jennings JW. Radiofrequency ablation and vertebral augmentation for palliation of painful spinal metastases. J Neurooncol. 2015;124(1):111-118. 7. Goetz MP, Callstrom MR, Charboneau JW. Percutaneous image-guided radiofrequency ablation of painful metastases involving bone: a multicenter study. J Clin Oncol. 2004;22(2):300-306.

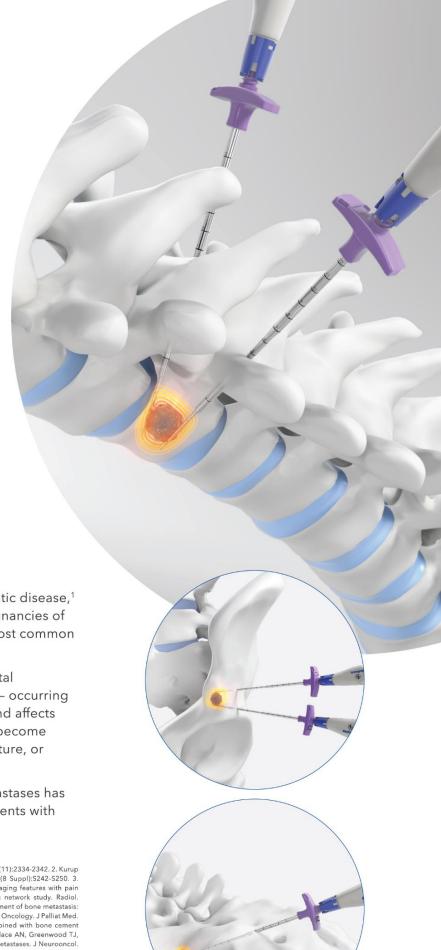
For healthcare professionals only.

FOR MORE INFORMATION:

MEDTRONIC HONG KONG MEDICAL LIMITED

1104-11, 11/F, Tower 1, The Gateway, Tsim Sha Tsui, Kowloon TEL: (852) 2919 1300 FAX: (852) 2838 0749

www.medtronic.com





Mixer and delivery systems

AutoPlex® mixer and delivery system

The AutoPlex system is the only automated mixer on the market and is fast and easy to use. With the press of a single button, it mixes, transfers and primes (ready to inject) highly viscous bone cement for delivery in less than 60 seconds.



Implants

VertaPlex® HV

bone cement

VertaPlex HV bone cement contributes to a controlled interdigitation and fill. VertaPlex HV cement reaches a thick viscosity as soon as it's mixed and maintains viscosity for an average of 18 minutes, giving physicians more working time.



Bone biopsy and needles

Bone biopsy kits and needles

Our coaxial bone biopsy kits allow a core sample collection within the vertebral body. This streamlined technique can be used in conjunction with vertebral augmentation procedures or independent biopsies.



This document is intended solely for the use of healthcare professionals. A surgeon must always rely on his or her own professional clinical judgment when deciding whether to use a particular product when treating a particular patient. We do not dispense medical advice and recommend that surgeons be trained in the use of any particular product before using it in surgery. Please contact your representative if you have questions about the availability of Stryker's products in your area.

Stryker Hong Kong

9th Floor, 12 Taikoo Wan Road, Taikoo Shing, Hong Kong T: 3969 1330 F: 2856 2600

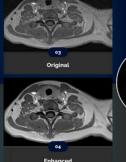
SYNGOULAR MIXED REALITY PLATFORM



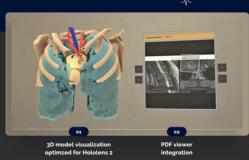
Prototypes: Advance visualization and immersive interaction













Company Profile

Syngular Technology focuses on developing AR-based surgical assistance software solutions. We have a strong technical team with extensive industry experience, including experts in AI medical image processing, 3D gaming visualisation and software engineering. With our gaming and engineering background, we can translate cutting-edge 3D visualisation. automated medical image modelling and gaming performance into medical AR software.

Contact Information

Syngular Technology Limited Telephone: +852 67686488 Website: syngular.com.hk

Address: Unit 629, 6/F, Building 17W,

17 Science Park West Avenue,

Hong Kong Science Park, Pak Shek Kok,

New Territories, Hong Kong

Awards

International **Exhibition Inventions** Geneva 2023

 Gold Award with the Congratulations of the Jury

HKTDC Start-up Express 2023

Top 10 Start-ups





ACCREDITATIONS

	Credit Points Awarded		
College / Association	Day 1 (8 Dec)	Day 2 (9 Dec)	
The Hong Kong College of Orthopaedics Surgeons (HKCOS)	4 (Cat. A/ Training Points)	4 (Cat. A/ Training Points)	
Hong Kong College of Radiologists (HKCR)	6.5 CME/CPD (Cat. A)	6.5 CME/CPD (Cat. A)	
The Hong Kong College of Pathologists (HKCPATH)	6.5 Point (Cat. PP)	6.5 Point (Cat. PP)	
The Hong Kong College of Family Physicians (HKCFP)	5 CME (Cat 5.2)	5 CME (Cat 5.2)	
The College of Surgeons of Hong Kong (CSHK)	6 CME	6 CME	
CNE/ PEM Accreditation Panel	6 CNE	6 CNE	
Hong Kong Physiotherapy Association Ltd. (HKPA)	10 CPD (Whole Function)		
Occupational Therapists Board	Pending	Pending	
Hong Kong Society of Certified Prosthetist- Orthotists (HKSCPO)	5 CPD (Cat A.1)	5 CPD (Cat A.1)	
The Hong Kong College of Medicine	2 CME (Active) 1 CME (Passive)		

ACKNOWLEDGEMENTS

DIAMOND



科能三維技術(醫療)有限公司 KOLN 3D TECHNOLOGY (MEDICAL) LIMITED



GOLD



Medtronic





(By alphabetical order)

