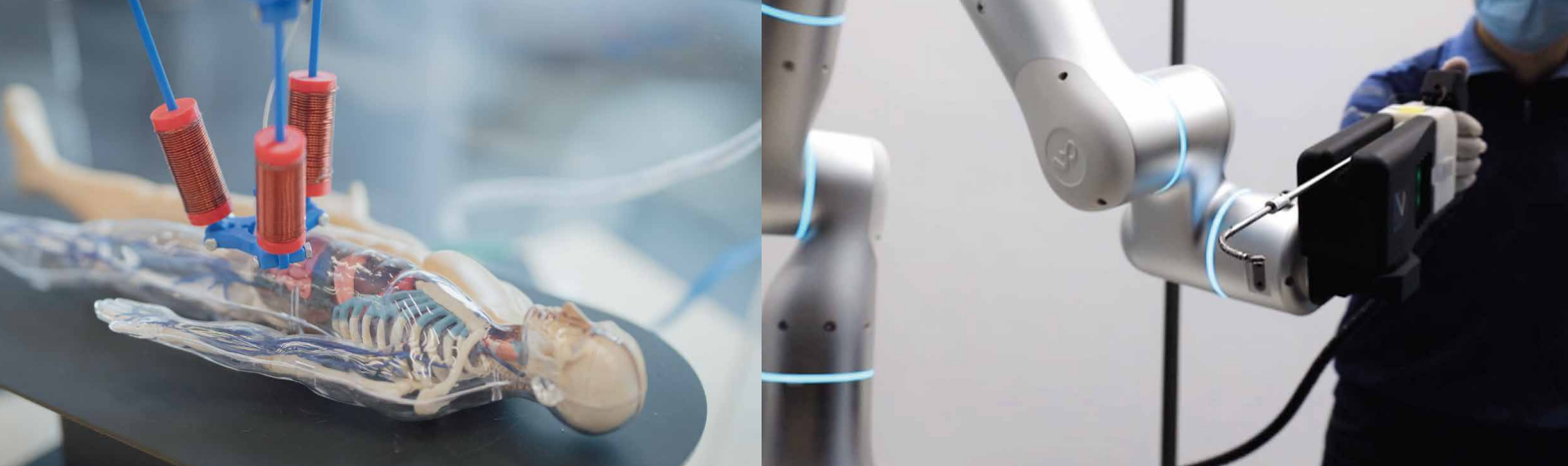




Research projects of MRC are broadly categorised under three research programmes:

- Endoluminal multi-scale robotic platforms for diagnostics and therapeutics
- Magnetic-guided endoluminal robotic platform
- Image-guided robotic interventions
- AI Solutions for Higher-level Robot Autonomy in Ultrasound and Laparoscopic Procedures
- Remote Robotic Surgery and Open-Source Development

醫療機械人創新技術中心支持多項研究項目，主要研究方向為：

- 用於診斷和治療的腔內多尺度機械人平台
- 磁引導腔內機械人平台
- 影像引導式機械人介入治療
- 超聲和腹腔鏡手術中提升機器人自主性的人工智能方案
- 遠程機器人手術及開源創新

Research Programmes 研究項目



ETH zürich

Imperial College
London

JOHNS HOPKINS
UNIVERSITY

Technical
University
of Munich
TUM



香港中文大學
The Chinese University of Hong Kong



香港中文大學醫學院
Faculty of Medicine
The Chinese University of Hong Kong



香港中文大學工程學院
Faculty of Engineering
The Chinese University of Hong Kong

MRC is well connected with the industry. We are open to collaborations and different modes of engagement with research institutes and industry stakeholders, both locally and globally. Modes of engagement with MRC include: 中心與業界聯繫緊密，我們期待與本地及全球的研究機構和業界進行各種模式的合作，合作模式包括：

- Technology Licensing
技術授權
- Joint Venture
合資經營
- Research Collaboration
研究合作
- Commissioned R&D
委託研發
- Pre-Clinical Evaluation Support Services
臨床前評估服務

Collaboration Models 合作模式

To explore collaboration opportunities with MRC, please contact us via the following channels: 請通過以下方式與我們聯繫，商討合作機會：

Email 電郵
enquiry@mrc-cuhk.com

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香港新界香港科學園
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MRC Website (EN)



中心網頁 (中)



MRC LinkedIn

Contact Us 聯絡我們

MULTI-SCALE
MEDICAL ROBOTICS CENTER
醫療機械人創新技術中心



With the advancement of AI, imaging and robotic technologies, novel robotic-assisted surgical procedures and therapeutic methods are transforming medical diagnosis and treatment solutions. Such technologies enhance the visualization, accessibility, and accuracy for the surgeons to carry out minimally invasive surgeries that are more accessible to patients worldwide.

The Multi-Scale Medical Robotics Center (MRC) brings the worlds of medicine and robotics together, focusing on technological innovation with a strong emphasis on clinical translation and direct patient benefits.

Our vision is to translate innovative biomedical engineering research into clinical practice, and to spin off start-ups of novel surgical robotic technologies.

隨著人工智能、醫學影像和機械人技術不斷進步，嶄新的機械人輔助手術程序和診治方法徹底改變醫療診斷及治療方案。機械人技術能改善內視影像質素和手術精確度，令醫生進行內窺鏡手術時更得心應手。這類微創手術的入侵性低，更可廣泛治療世界各地的病患。

醫療機械人創新技術中心結合醫療及機械人兩個科技領域，積極將創新技術轉化作臨床應用，讓病人直接受惠。

我們的願景是將創新的生物醫學工程研究轉化為實質的醫療應用，並成立新型手術機械人技術的初創企業。

Vision 願景



Top-notch Clinical and Engineering Teams

MRC serves as a synergistic platform for clinicians, engineers, and researchers from top-notch universities, including the Chinese University of Hong Kong, ETH Zürich, Imperial College London, Johns Hopkins University and Technical University of Munich, to contribute their efforts through transdisciplinary collaborations, to enable the acceleration of new IP generations, preclinical evaluations and the commercialisation of novel surgical robotics technology.

Asia-first Hybrid Operating Room Dedicated for Surgical Robotics R&D

The Hybrid Operating Room of the MRC Lab, equipped with MRI and Robotic-Assisted C-Arm X-ray Imaging System (Artis Zeego) machines, enables real-time, intra-operational medical imaging during surgical robotic interventions R&D. Our hybrid operating room is a one-of-its-kind facility in Asia that is fully dedicated to R&D and preclinical evaluations of new surgical robots and medical devices via live animal and cadaveric studies.

Platform for One-stop Surgical Robotics and MedTech Translation

With MRC, the Chinese University of Hong Kong, Prince of Wales Hospital and CUHK Medical Centre all within 15 minutes' drive, this synergistic cycle offers the very efficient one-stop surgical robotics and MedTech translational ecosystem from the supply of R&D talents, preclinical evaluations, clinical trials and clinical applications in hospital setting.

擁有頂尖臨床及工程團隊

醫療機械人創新技術中心為香港中文大學、蘇黎世聯邦理工學院、倫敦帝國學院、約翰·霍普金斯大學及慕尼黑工業大學等頂尖大學的臨床醫生、工程師和研究人員提供協同平台，進行跨學科合作，共同致力於創造新知識產權、促進臨床前評估和創新研究的發展，以及推動新型手術機械人技術的商業化。

設有亞洲首個專為手術機械人研發而設的混合手術室

中心的混合手術室配備了磁力共振掃描及機械人輔助C臂X射線成像系統（Artis Zeego）儀器，可在手術機械人介入治療研發期間提供實時的術中醫學成像。此設備專門為研發新型手術機械人及醫療設備而設，透過活體動物和屍體實驗作臨床前評估，全亞洲只此獨有。

提供一站式手術機械人及醫療技術轉化平台

中心距離香港中文大學、威爾斯親王醫院以及香港中文大學醫院僅15分鐘車程，這個協同循環推動研發人才培育、臨床前評估、醫院臨床試驗以至臨床應用，促成非常高效的一站式手術機械人及醫療技術轉化生態系統。

Unique Advantages 獨有優勢