



MG MEDCARE
鎂力新生

Refresh the Life with Power of Magnesium



Cutting-edge research for better diagnosis and treatment

Discovers made by researchers at the Chinese University of Hong Kong (CUHK)'s Faculty of Medicine are leading to biomedical innovations improving people's lives.

Seeking biodegradable metals for clinical use

CUHK professor Ling Qin leads a research laboratory in the Department of Orthopaedics & Traumatology, focusing on research and development (R&D) of innovative bioactive materials and drugs for orthopaedic use. The lab targets major orthopaedic problems with huge global socioeconomic and healthcare burdens, such as osteoporosis and osteonecrosis. For example, biodegradable materials, especially those that do not require removal as conventional rigid metal orthopaedic implants do, are highly desirable for fracture fixation. Based on skeletal physiology and pathophysiology, Qin and his group think that magnesium, an essential mineral element of our bone matrix, is an ideal candidate. Collaborating with local and international colleagues, they have developed pure magnesium implants, as well as alloy and hybrid systems for safe application in bone fracture fixation and bone defect repair enhancement.

Qin's multidisciplinary team also looks at the potential healing mechanisms of magnesium ions after implant degradation. In an animal model, they showed, for the first time, that magnesium-induced osteogenesis or bone formation is mediated by local neuronal production of calcitonin gene-related peptide 1 (CGRP), a calcium-lowering peptide. Joint research with orthopaedic surgeons has led to the very first clinical trial to use magnesium screws for fixation in reconstructive hip surgeries. These findings have been published in Nature Medicine, Biomaterials and other leading journals, and have led to numerous

● **About Us**

MG MedCare® is derived from the **Department of Orthopaedics and Traumatology of the Chinese University of Hong Kong (CUHK)**, mainly focuses on the research and development of application of **Magnesium (Mg) on the tissue regeneration**. The core team of MG MedCare® is committed to translate the research outcomes of Mg to application and products.

● **Our Group**

Our core team recruits basic medical R&D, clinical medicine and biomaterials engineering professionals. Our translational outcomes are received high attention and prized with several international and domestic invention patents and awards.

● **Our Products**

- 鎂舒寶®含鎂多效修復霜 Magnesium Vitalizing Cream

Effective in pain release caused by strains, sprains, and deteriorations with penetration of concentrated Mg ions.

- 鎂康寧 含鎂修復凝膠噴霧 (圖) Magnesium Hydrogel Wound Dressing

The hydrogel spray for wound healing promotion by integrating Mg ions with the blood vessel and nerve regeneration effect.

