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[\[Medicine\]\[Biotechnology\] NCKU Developed Taiwan's First Proactive Cancer Treatment System First-Generation Prototype](#)

[Medicine][Biotechnology] NCKU Developed Taiwan's First Proactive Cancer Treatment System First-Generation Prototype ([Chinese Version](#))

NCKU News (2011/01/25) A Taiwanese research team, led by Prof. Ming-Shing YOUNG of Department of Electrical Engineering at National Cheng Kung University (NCKU), has successfully developed a large-scale proactive cancer treatment system first-generation prototype which includes Frequency-Adjustable High Frequency Induction Heating Machine (HFIHM) and 3D Magnetically Guiding Endoscope System (3DMGES).

"Biotechnology is one of the emerging industries in Taiwan that emphasizes on the research and development of new medicine and medical equipments. From the economic perspective, the possibility of Taiwan successfully developing medical equipments is greater than the possibility of Taiwan developing new medicine, because the average development time of new medicine is thirteen years and the development time of medical equipments is about seven years," said President Michael Ming-Chiao LAI in his opening address.

"Taiwan has excellent development conditions of medical equipments because we have outstanding medical industry and electronic industry, and if we can integrate the basics of electronic industry with medical treatment, high-quality medical equipments will be produced."

Prof. Ming-Shing YOUNG of NCKU Department of Electrical Engineering, the project director, revealed, "Initiated and supported by President LAI, the 3D Controllable Electromagnetic Biomedical Technology Platform - Imaging, Targeting, Drug Delivery and Thermoablation for Cancers project is carried out one and a half years ago and has received sponsorship funds and technological manpower from Delta Electronics, successfully completing the first-phase core technology."

Prof. Ming-Shing YOUNG has successfully integrated College of Electrical Engineering and Computer Science, College of Engineering, College of Planning and Design, College of Bioscience and Biotechnology and College of Medicine to form an interdisciplinary team and has completed first phase core technology.

The first-generation prototypes of Frequency-Adjustable High Frequency Induction Heating Machine (HFIHM) and 3D Magnetically Guiding Endoscope System (3DMGES) are recognized by Brookhaven National Laboratory and Aurora Imaging Technology, Inc., United States, and they have invited the team to participate in the integrated research of Magnetic Resonance Imaging and Positron Emission Tomography.

In addition, the team has begun cooperating with Delta Electronics, Inc. and Supertech Optoelectronics Co., Ltd. and is expecting to complete a system of small and medium animal experiments for commercial enterprises and to create a business opportunity greater than that of human clinical utility system.

Further Information:

[NCKU News 2011/01/25](#)

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[National Science Council International Cooperation Sci-Tech Newsbrief](#)

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