

PROF. LEE SHIH-YUAN CONTINUES RESEARCH INTO BIOCHIPS

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Professor Lee Shih-yuan, Chair of the Department of Chemistry, is continuing his work with a National Taiwan University research team on the development of biochips for medical use, a project commissioned by the Ministry of Economic Affairs. The biochips are designed to be implanted in human bodies so that doctors will be able to monitor the patients' conditions anytime. The research and development of biochips is expected to bring significant benefits to the medical world.

Prof. Lee, who specializes in biochemistry, has just won the honor of mass producing "NTU Anti-Sars No. 1." And now he is working with the NTU Research and Development Center of Nano-Biomedical System, acting as leader of a sub-project of the "Wireless Health Advanced Monitoring Bio-Diagnosis System" (WHAM-BioS) development project in its second year. The other participants in the team include professors of medicine, information science, electrical engineering and mechanical engineering at NTU.

In this large-scale project, Prof. Lee is responsible for designing and synthesizing nano- "biolinker molecules" which would function as the chemical connection between the solid phase (biochip base) and the liquid phase (investigated molecules). When the biochips are implanted in human bodies, doctors will be able to gather figures of the patients' blood pressure, pulse, blood sugar, and so on. If anything unusual is detected in the patient's body, the chips will send wireless messages to the monitoring center and even warnings directly to the doctor's mobile phone. The biochips will facilitate the long-term monitoring of chronic illnesses or the diagnosis of sudden abnormal development of symptoms.

The project, the largest of all the development projects by academia in Taiwan at present, will continue for three years, receiving an average

annual grant of NT\$50,000,000 from the MoEA.