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CK Life Sciences and HKUST Join Forces to Fight Cancer \$6.5 m project co-funded by the Government

CK Life Sciences Int'l Holdings Inc. (CK Life Sciences) and the Hong Kong University of Science and Technology (HKUST) today (4 December 2003) announced a joint research initiative to study the efficacy of groundbreaking antitumor products for breast cancer and prostate cancer.

The collaborative study will also establish the first-ever pharmacogenomic and pharmacogenetic database for the Chinese population.

With the Innovation and Technology Commission and CK Life Sciences each providing half of the HK\$6.5 million funding, and HKUST providing its scientific expertise, the research program will be carried out in four phases over a 2.5 year period.

World Health Organization figures released in April 2003 show that breast cancer is the second most prevalent cancer in the world, with more than one million new cases reported worldwide annually. Prostate cancer is the most common cancer among US men, and there are 250,000 cases of prostate and testicular cancer cases diagnosed worldwide every year.



Mr H L Kam, President and CEO of CK Life Sciences (left) and President Paul Chu of HKUST

In Hong Kong, breast cancer is now the most common form of cancer among women, according to the Hospital Authority. Statistics also show that one in every 23 women will develop breast cancer at some point in their life. Prostate cancer is the 7th most commonly diagnosed cancer among men in Hong Kong, with a mortality rate that ranks among the top 10 of cancers.

The efficacy of CK Life Sciences' anti-tumor products and their immune-enhancing effects will be studied in the first part of the joint research. HKUST's experts will also help establish a pharmacogenetic database for the Chinese people to identify the panel of genes involved in drug metabolism responding to the testing products.

Patent application will be submitted for the database, and the data will be tabulated and analyzed to facilitate CK Life Sciences in the development of effective personalized anti-breast cancer and anti-prostate cancer products.

Mr H L Kam, President and Chief Executive Officer of CK Life Sciences said, "Cancer is the world's number one killer. It is not only a great cause of pain and suffering for many families and individuals, but it also represents a heavy financial burden for many nations in terms of providing medical care for their citizens. CK Life Sciences is committed to developing more effective anti-cancer products that can alleviate patients' suffering and improve their quality of life."

"The collaborative study will also greatly speed up the development of anti-tumor products for two of the most common types of cancer. HKUST's investigators are all renowned experts in pharmacology, pharmacokinetics, or genetics. Their expertise will complement CK Life Sciences' experience in dedicated scientific research. The establishment of a gene database for the Chinese population will expedite the development of effective personalized anti-cancer products. The

three-way collaboration between Government, CK Life Sciences and HKUST will set a new benchmark for local research efforts."

President Prof Paul Chu of HKUST said: "This collaboration represents the firm commitment of the private sector, the University, and the Government to contribute to research and the collective well-being of the people of Hong Kong. HKUST's mission is to advance learning and knowledge through teaching and research and to assist in the economic and social development of Hong Kong. To achieve this objective, we are focusing our efforts on several major research areas, and biotechnology is one such area. This collaboration is a fitting recognition of HKUST's achievements in biotechnology research."

About CK Life Sciences

CK Life Sciences Int'l., (Holdings) Inc. is a listed company on the Growth Enterprise Market of the Stock Exchange of Hong Kong (stock code: 8222). Bearing the mission to improve the quality of life by enhancing human health and the sustainability of the environment, the Group is engaged in the business of research and development, commercialization, marketing and sale of biotechnology products. Products developed by CK Life Sciences are categorized into five areas - eco-agriculture, bioremediation, pharmaceuticals, nutraceuticals, and dermatologicals.

Some of CK Life Sciences' products were granted patents by the US Patent and Trademark Office. Many others are at patent pending stage, including 1 anti-AIDS product and 18 anti-cancer products. The in-vitro and in-vivo pre-clinical studies for its anti-liver cancer product were completed by the Chinese University of Hong Kong earlier. The results are very encouraging.

About HKUST

Officially opened in 1991, the Hong Kong University of Science and Technology (HKUST) is a young and dynamic research university dedicated to the advancement of knowledge, and thus to the economic and social development of Hong Kong and its neighboring areas through teaching, research, and service. The only university in Hong Kong to offer an all-PhD faculty, HKUST has gained international recognition for its groundbreaking research achievements in science, engineering, business, humanities, and social science.

Joint Breast Cancer and Prostate Cancer Research by CK Life Sciences and HKUST Brief Introduction

Joint Research Scope:

1st Part - Product Efficacy Study

In-vitro and in-vivo pre-clinical studies will be conducted for the anti-tumor products developed by CK Life Sciences. The immune-enhancing effect of the product will be studied through monitoring the macrophage activity and cytokine secretion in immune-suppressed mice. In addition, nude mice will be used to investigate the anti-tumor effects in terms of tumor size, apoptosis, angiogenesis and gene expression differential.

2nd Part - Establishment of Gene Database

Scientists are to identify genes that are affected by the test therapeutics in mouse models and their corresponding human equivalents. Blood samples will be collected from both healthy controls and cancer patients to identify the panel of genes that is involved in drug metabolism responding to the testing products and to establish the pharmacogenetic database for the Chinese population. Patent application will be submitted for the database, and the data will be tabulated and analyzed to facilitate the stratifying of patients for future clinical trials and to facilitate CK Life Sciences to develop effective personalized anti-breast cancer and anti-prostate cancer products.

Scholars Participating in the Research:

<u>The Hong Kong University of Science & Technology</u> Prof Jeffrey Wong, Department of Biochemistry Dr Hong Xue, Department of Biochemistry Prof Madeline Wu, Department of Biology

CK Life Sciences

Prof S F Pang, Vice President and Chief Technology Officer Dr Yingjye Wu, Technology Development Director Dr Sharon Luk, Project Manager