

Hong Kong's first anti-cancer drug granted with US FDA IND

June 29 2012, By Regina Yu

(Medical Xpress) -- The discovery of a new drug for liver cancer by researchers of The Hong Kong Polytechnic University (PolyU) and local medical practitioner has born fruit. After completing clinical trials locally, the new drug known as "BCT-100" has become Hong Kong's first "Investigational New Drug" (IND) granted by the US Food and Drug Administration (FDA).

Developed by Professor Thomas Leung Yun-chung and Associate Professor Dr. Thomas Lo Wai-hung of PolyU's Department of Applied Biology and Chemical Technology and Dr. Paul Cheng Ning-man, the new drug works on the mechanism of arginine depletion for the treatment of liver [cancer](#). This achievement is hailed as an important milestone in the development of bio-technology and pharmaceutical industry in Hong Kong.

The main constituent of this new drug is human arginase, an enzyme that degrades arginine, with urea as an end-product. However, naturally occurring human arginase has a very short half-life and thus cannot be used for therapeutic purpose. Using state-of-the-art [DNA technology](#), PolyU researchers have produced a recombinant human arginase that has significantly prolonged half-life for therapeutic use.

With support from Innovation and Technology Commission (ITC), the human arginase project was a successful University-Industry Collaboration Program (UICP) project and Bio-Cancer Treatment International Limited subsequently commercialize the new drug and put

it to further testing. The new drug has gone through a series of clinical trials at Queen Mary Hospital and the result was presented by Professor Ronnie Poon of HKU's Department of Surgery at a press briefing today (26 June).

Meanwhile, PolyU researchers have beefed up their efforts in developing the second generation of [cancer drugs](#). They have further invented a novel drug based on naturally occurring thermostable Bacillus caldovelox arginase (BCA) for treating other kinds of cancer. A patent application has been filed for this [novel drug](#).

The [cancer drug development](#) project was kicked off in 2001 with seed money provided by the Government's Innovation and Technology Fund (ITF). This breakthrough also won a Special Gold Award in the 33rd International Exhibition of Inventions, New Techniques and Products of Geneva.

Provided by ResearchSEA

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