



# Breakthroughs in the Fight Against Cancer 理大抗癌新法

### **Current challenges**

Cancer is a word dreaded by many. Many cancers are deadly and difficult to treat while conventional remedies like chemotherapy and radiotherapy often cause physical and emotional side effects such as abdominal pain, diarrhea and depression, giving struggling patients more harm just as the cancer. Besides, resistance to chemotherapy continues to be a major obstacle to the effective treatment of many tumor types, making cancer



remain as one of the world's top killer diseases.

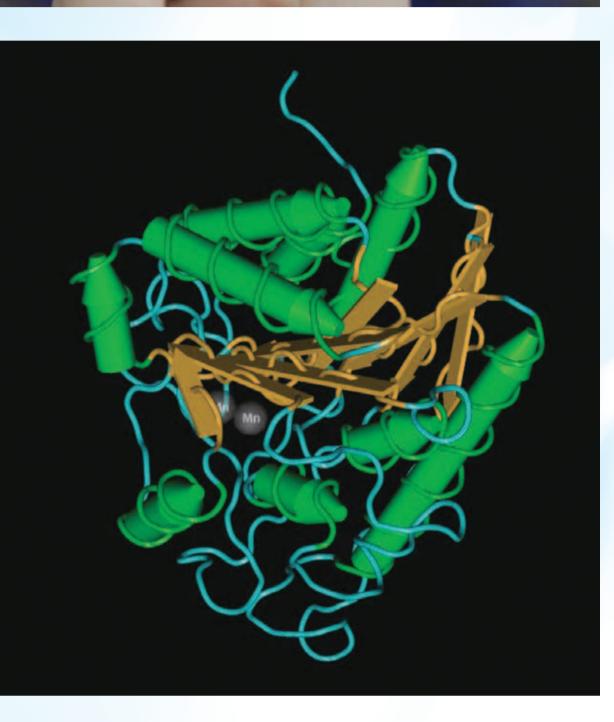
## Our solutions

Tapping into the power of natural ingredients for safer treatment is the next frontier in the battle against cancer. Many researches are going on at PolyU to make cancer preventative functional food and health products by using tiger milk mushroom to prepare anti-tumor nanoparticles as well as synthesizing a series of food component compounds to reverse drug resistance in cancer patients.

Besides, PolyU has also developed a groundbreaking anti-cancer drug by depleting a vital nutrient for cancer cells which then starve to death. This novel drug has proven to be effective and non-toxic as it kills cancer cells but leaves normal tissues unharmed, offering a safer and more comfortable remedy without increased risk of side effects.

#### Impact to the world

All these exciting breakthroughs open up new possibilities for effective and affordable cancer therapy with minimal side effects. They are definitely a safer alternative to the conventional remedy such as chemotherapy and radiotherapy, offering new ray of hope for many cancer-sufferers.







## 目前之挑戰

「癌症」兩個字怕煞了不少人!只因不少癌症是難以治療,更可隨時奪命,某些治癌藥物藥性極為猛烈,甚至是「以毒攻毒」, 患者身心所受的創傷如腹痛、腹瀉、抑鬱症,並不比癌細胞本身帶來的傷害少!癌症所涉及的範疇相當多,雖然某幾種癌症已經 找到療法如化療或電療,但因為抗藥性的問題,直到現在還未能完全徹底消滅癌細胞,所以癌症仍然是世界上的頭號殺手之一。

# 理大之解決方案

理大的科學家為了對抗癌症,進行了一系列的研究。從食物的天然成分着手,成功利用非洲品種的虎奶菇製備抗癌活性強的納 米粒子,將用於開發預防腫瘤生長的功能食品或健康產品。此外,科學家亦研發由食物成份組成的化合物合成克服人類癌細胞 的抗藥性,提升化療的成效。

理大還研製新一代抗癌藥,透過消耗病人體內癌細胞生長所必需的養料,令其失去營養補充而死亡,從而達到治療效果。這新 藥能應用於治療多類癌症,既安全又有效,而且只會殺滅癌細胞而不會對正常細胞造成損害,副作用遠比化療及電療少,減少 病人在治療過程中的痛苦。



# 對世界之影響

這一系列抗癌藥物既安全又有效,可以取代傳統的治療方法如化療及電療,給每年成千上萬癌病患者帶來希望的曙光。



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