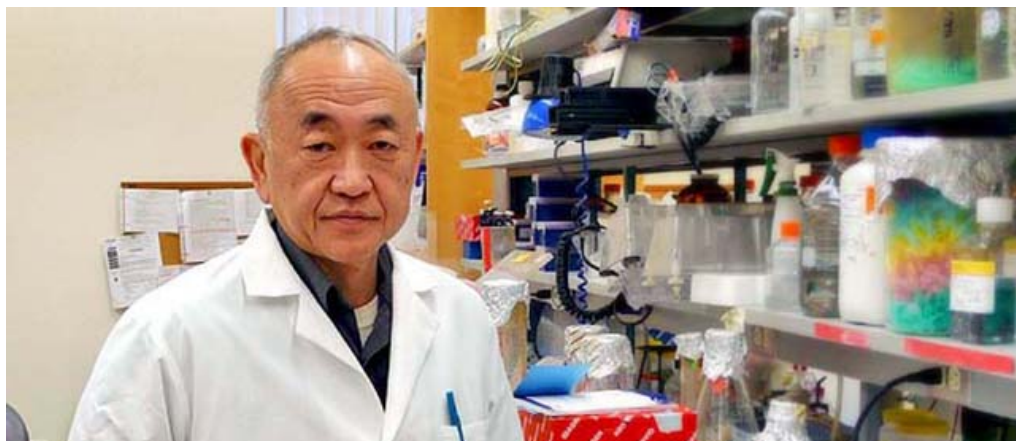


Tommy Cheng



Mining Ancient Chinese Remedies for Cutting-Edge Therapies

Put simply, Yung-chi Cheng's work in pharmacology has had a profoundly positive effect on human health.

He is one of Yale's more prolific inventors, with several drug-related patents and applications that have been the basis for groundbreaking therapies to treat diseases that afflict millions. Drugs he has invented are routinely used to treat cancer, HIV/AIDS and hepatitis B.

Yale and Cheng, together with Scheer and Co., founded Achillion Pharmaceuticals, a New Haven-based company that is working on improved antiviral compounds. The company is developing a drug invented by Cheng called elvicitabine, aimed at combating HIV/AIDS and hepatitis B. It is now in phase II clinical trials, on track for FDA approval.

He also invented a drug called clevudine, for treatment of hepatitis B, which each year causes hundreds of thousands of deaths worldwide. The drug is already being sold in Korea by Seoul-based Bukwang Pharmaceutical Company. Pharmasset Inc. is developing the drug for the U.S. market, and it is in phase III trials.

Cheng's research has long been on the cutting edge of pharmacology, but one of his latest pursuits is going back to the future — way back.

He's created a botanical drug, PHY906, based on traditional Chinese herbal medicine. It's a formulation of four herbs that has been used to alleviate common stomach ailments for nearly 2,000 years.

Along with Yale, Cheng co-founded Phytoceutica to develop such traditional Chinese medicines. Dr. Ed Chu, chief of medical oncology at Yale Cancer Center, his colleagues and other universities are studying the clinical potential of PHY906 and other Chinese herbal medicines.

Known to his friends and colleagues as Tommy, Cheng has developed this botanical prescription drug to reduce the toxic effects of chemotherapy cancer treatments and to enhance the therapeutic effects of a broad spectrum of anti-cancer treatments.

Together with the National Cancer Institute, Cheng's lab is exploring PHY906's mechanisms of action. The studies are essential not only for assessing PHY906 but are expected to establish a new paradigm for future drugs — what Cheng calls poly-chemical medicine with "systems biology" in mind.

Early in his Yale career, he developed 3TC for use against hepatitis B, and is responsible for a slew of Yale-developed compounds. Cheng says he chose to study at Yale, arriving from Brown in the early 1970s to start postdoctoral work, because pharmacologist [William Prusoff](#) was here.

Cheng says he considers Prusoff a giant in the field, and his role model.