

Alternative Medicine: Researching a Herbal Cure for Cancer

Grantor: The Lotte and John Hecht Memorial Foundation

Grantee: BC Cancer Agency

Summary: Funding research on non-traditional herbal medications for the preventative treatment of lung cancer

Six obscure herbs used for hundreds of years in China could serve as the next major breakthrough in the preventative treatment of lung cancer, thanks to a bold funding initiative by the Hecht Foundation, a small Vancouver-based foundation, that kick-started this landmark research.

Lung cancer is the leading cause of cancer deaths for men and women. Even though the disease is viewed as largely preventable – given that 90 per cent of those who get the disease are smokers or former smokers – until now most drugs used to treat lung cancer have proven to be too toxic or ineffective.

The impetus for finding a new treatment becomes all the more imperative in light of recent statistics released by the Canadian Cancer Society indicating lung cancer rates for women rose by an alarming 46% over the past 15 years.

The journey of an obscure Chinese herbal treatment to the West began in 1996 when Dr. Wah Jun Tze, a Harvard educated and internationally renowned pediatric endocrinologist living in Vancouver, learned about the herbs (nicknamed ZSP) at a Beijing medical conference on one of his frequent trips back to China.

Although the herbal cocktail, a combination of six herbs, had been used by the Chinese for several centuries in disease prevention, it has only been used as a cancer therapy for the past 26 years after research at the Chinese Academy of Medical Sciences proved highly successful for the treatment of esophageal cancers.

Intrigued by this new information, Dr. Tze hypothesized the herbal treatment might also be effective for treating pre-cancerous lesions in lung cancer. The possibility of discovering such a vital remedy prompted Tze to form a company, Global Cancer Strategies and patent the herbal treatment under the

name of ACAPHA (an acronym for Anti-Cancer Preventative Health Agent). But first a pilot study would be necessary to ensure the accuracy of the Chinese data and to determine if the herbs would also work effectively in the lungs.

Meanwhile Dr. Stephen Lam, chairman of lung tumours for the BC Cancer Agency and a professor of Medicine at UBC, started working with a bronchoscope using fluorescent light instead of white light to improve detection of pre-cancerous tissue in the lungs. This resulted in a 171% increase in detection rates. These impressive findings drew the attention of Dr. Tze who approached Lam to conduct the pilot study on ACAPHA, under the auspices of the B.C. Cancer Agency.

Obtaining funding for this initial study would not be easy. Lam explains, “clinical trials on herbal medications are rarely funded by government or public agencies because in the West we’re used to pharmaceutical drugs that are usually composed of a single compound that allow for a clear pharmacokinetic study of how the compound is absorbed and eliminated by the body. Herbal medications however have multiple ingredients. This makes determining the actual active ingredient very difficult. In traditional Chinese medicine, we tend not to care about isolating the active ingredient. We realize that it may be more of a synergistic action of many ingredients working in concert, rather than the effect of a single compound.”

Funding of research on non-traditional herbal medica-

tions also faces serious obstacles through the process of “peer review” required by most conventional granting agencies. It’s often hard, says Lam, to find practitioners who are familiar with herbal medications and therefore qualified to serve as “peers”. As a result, most non-traditional research proposals have difficulty with funding agencies choosing to support only projects that they know.

Fortunately, several years earlier, Dr. Tze had met Angela Webster, executive director of the Lotte & John Hecht Memorial Foundation. He knew the Hecht Foundation was committed to supporting this kind of research, particularly as it related to alternative cancer treatments. It appeared to be an ideal fit.

Lotte and John Hecht came to Canada from Germany and Austria prior to WWII and made their fortune first through a sawmill and later through their real estate investments. In 1962 the Hechts established the 1945 Foundation, with proceeds from the sale of shares from one of their companies, to focus on economic education and assisting those in need.

The foundation shifted to supporting complementary and alternative medicine research, specifically for the treatment of cancer, when Lotte was diagnosed with the disease herself in the 1970’s.



Initially, she was treated with conventional therapies, but when she was told there was nothing else that could be done, the Hechts started to explore alternative treatments.

They soon realized however there was little or no professional assistance to help them evaluate the plethora of alternative therapies being touted as panaceas – often, with little or no documented research to substantiate their claims. Together the Hechts decided this was an area desperately in need of funding.

By the mid nineties, after they had both passed away, the 1945 foundation was renamed the Lotte & John Hecht Memorial Foundation. The Hecht Foundation prefers to fund research projects in British Columbia, although if the project is deemed interesting enough, it will also fund in other parts of Canada and the United States. Grant recipients are selected based on how alternative or complementary they are. More specifically, says Webster, “we tend to look for projects that would not likely receive funding from the Canadian Institute for Health Research or other conventional funding bodies, because it’s beyond their mandate, or simply too risky.”

The dollar amount of the Foundation’s grants remains flexible with no fixed ceiling. It is the applicant’s credibility that plays the most crucial role in the board’s decisions. In the case of ACAPHA, Webster says it was Dr. Tze’s reputation both in Canada and China, along with his approach to medicine that induced the Foundation’s review board to take this unprecedented leap of faith.

Webster says, “I don’t think there would have been anyone else who would have funded this project if we hadn’t. We took a real risk without all the basic science research being done and without volumes of information available about ACAPHA, but we balanced that risk against working with a very credible team. That’s the great part about being a private foundation, we can be a lot more flexible.”

Lam agrees adding, “having access to grants from private or philanthropic organizations is essential for funding medical research, because it’s extremely hard to find research money to conduct clinical trials on a herbal medication from conventional agencies. This kind of grant helps bridge the gap for what I consider to be cutting edge kind of research where traditional agencies may not understand the significance of this kind of investigation.”

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Conventional funding agencies, he says, also require far longer timeframes to process applications, have more rigid reporting requirements and far more strings attached to the intellectual property rights of such discoveries.



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By March 1997, a mere six weeks after Dr. Tze submitted his application, the Hecht Foundation board approved about \$90,000 in funding to import ACAPHA from China and launch the pilot study. In 1998 the pilot study was ready to begin. Twenty former and current heavy smokers with dysplasia, or pre-cancerous lesions, in their bronchial tubes, were given the ACAPHA tablets twice a day for six months. Upon completion of the clinical trials, fluorescent bronchial imaging was used to test the participants. The dysplasia in 80% of the recipients actually vanished.

These stunning results served as a springboard to attract the interest of the U.S. National Cancer Institute, which had been searching unsuccessfully for a lung cancer prevention agent for more than 3 decades. In the fall of 2002, it offered the Canadian researchers a \$4 million US grant to conduct a five-year clinical trial of 3500 volunteers using ACAPHA.

It's a landmark event," says Lam. "It's the first scientific study in North America ever to test a complex herbal remedy for cancer prevention. If it works out the way we anticipate, it has the potential to be a major contribution to lung cancer prevention and

to how we can standardize herbal compounds for clinical trials in the future."

Encouraged by the ACAPHA pilot study success, the Hecht Foundation is now examining the possibility of joint venture funding for further research by Lam to explore additional applications of ACAPHA on cervical, gastrointestinal, mouth, esophagus, breast and prostate cancers.

What the Hecht Foundation board has found most gratifying about this grant project," Webster explains, "is that we took a risk and that risk has paid off beyond what we ever hoped for. As a result we've had the rare opportunity to serve as a catalyst to attract further research funding for ACAPHA and to help improve the survival rates of a very deadly cancer."

For more information visit the Foundation Web Site: www.hecht.org