

# A Scientist in Our Midst: St. Petersburg's Best Kept Secret

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**Dr. Akiko Tanaka with kids**

**W**ith laughing eyes, Dr. Akiko Tanaka will tell you it was ice cream that brought her to America but it was in fact, a much higher purpose.

As a young child, Akiko was deeply affected when a classmate died during a flu epidemic that swept through their province in post war Japan. When questioned, her mother explained that their family had been able to survive because they were fortunate enough to have good food. The incident fueled Akiko's curiosity and the passion that led to her life long interest in bio-medical research, especially the understanding and prevention of diseases most likely to affect each of us.

After receiving a BS in Pharmaceutical Science at Showa University in Tokyo, she began her dissertation work by use of an electron microscope in the Physics Department at the Institute for Virus Research at Kyoto University. When her studies progressed to biochemical analysis, she became a special student abroad to continue her research on Chlamydia in the Bacteriology and Immunology Department of North Carolina at Chapel Hill. After receiving her Ph.D. in medical science in Japan, Dr., Dr. Tanaka went on to serve as a research assistant at both St. Luke's Medical Center and the University of Illinois.

In 1981, Dr. Tanaka and a colleague established Tampa Bay Research Institute as a 501 C-3, not for profit organization. It was the first independent biomedical research facility in the state of Florida. The 33,000 square foot building is located at 10900 Roosevelt Road.

The Institute, commonly referred to as TBRI, is dedicated to the study, cure, and prevention

of cancer and chronic diseases. Dr. Tanaka's work, especially in the areas of Herpes viruses including the Marek's disease virus and the Epstein-Barr virus has been widely recognized. Thus, the Institute pioneered the discovery of the relationship between viral infections and cancer.

Dr. Tanaka has been credited with extensive scientific journal citations and she has collaborated with scientists throughout the world. TBRI has trained numerous doctoral and post doctoral scientists. They have also hosted eight international conferences addressing infectious diseases and advances in the field of biotechnology.

Throughout her career, Dr. Tanaka has been fascinated with the immune system and how it prevents or cures disease. She knew that in Japan, when one had the onset of a cold or other disorders that a tea brewed from pine cones had an efficacious effect. The long established folk remedy is in fact documented in the annals of medical history. The Greek physician, Dioscorides, traveling with the Roman Army in the 5th Century AD, is reported to have prescribed pine cone tea for his patients. Herbal medicine is the oldest form of healthcare in the world and it is estimated that 4 billion people, roughly 80 percent of the world's population, use herbal medicines today.

However, the scientific community requires much more than testimonials. The active molecules have to be identified and their interaction with infectious agents, cancer cells, and immune cells investigated. While the work is complex and the investigation on going, solid progress has been made.

In the early stages of the HIV/AIDS epidemic in the 1980's, Dr. Tanaka received a grant from the NIH under the "New Drug Development for HIV/AIDS program. This inaugural work led to a comprehensive study of a plant extract derived from the pine cone. Dr. Tanaka and her colleagues have secured a number of patents for their discoveries.

Our scientists now know with some certainty that the dendritic cells, essentially the generals of our immune systems, can be increased through the use of the proprietary compound they have produced. When the body is weakened through the onset of disease or the use of chemotherapies, optimizing our own immune systems leads to a faster recovery.

Allera, a for-profit, drug development company, has secured a licensing agreement with Tampa Bay Research, and in September of 2006 publicly announced the availability of the product, ImmunExtra ([www.immunextra.com](http://www.immunextra.com)).

It is exciting that like other botanicals such as aspirin from the bark of a willow tree and the cancer drug, Taxol, from a yew tree, ImmunExtra is now available. For Dr. Tanaka, it scientifically blends conventional western medicine with the natural remedies of eastern medicine. Together they treat the whole body and mind.

In the coming months and years, it is hoped that advances will continue to be forthcoming in the fight against the debilitating diseases which invade our lives. Dr. Tanaka and her scientists are an important part of that effort. We are blessed to have them among us.