Non-Toxic Cancer Treatment: Proprietary Plant-based Compound Can Improve and Extend Life of Off Patent Drugs

CLINICAL ISSUE / UNMET NEED

There are many problems with current cancer drugs
- Toxic: Most anti-cancer drugs are toxic; often not selective for tumor cells.
- High doses: The drugs require high doses for efficacy and often result in unwanted side-effects.
- Drug resistance: Repeated treatments produce tumors that are resistant, leaving few therapeutic options.

PRODUCT / SOLUTION

We have developed a non-toxic cancer treatment. Black cohosh is a US native plant used for hundreds of years to treat inflammatory conditions. For the first time, we have identified Actein as an active, non-toxic, anti-cancer ingredient from Black Cohosh. Our solution showed great anti-cancer properties, demonstrated in cell, animal and human studies. Moreover, actein can serve as a platform to synthesize even more active anti-cancer drugs.

ADVANTAGE

- Effective: Actein induces cancer cell death
  - Reduce Risk: Reduced the risk of primary breast cancer.
  - Recurrence: Prevented its recurrence (one of fears in cancer treatment)
- Non-toxic: At the same dose, Actein does not affect normal cells

MARKET

Market Opportunities - $100 Billion

Breast Cancer
- Leading cause of death
  - Second most common type of cancer worldwide
  - In 2009, 191,410 women diagnosed with breast cancer (US)
  - 40,820 women will die from breast cancer (US)
- Rising Revenues
  - Pharma companies in 2009 made over $11 billion, worldwide, in breast cancer treatments. But patents for their leading drugs will expire soon

Other Cancers/Other Diseases
- Add other cancers (prostate, colon, skin, and oral cancers) and other diseases (HIV, lipid disorders), the market potentially exceeds $50-100 billion, worldwide.

TEAM

Lehman College:
- Professor Edward J. Kennelly, natural product isolation studies
- Dr. Linda Einbond, genetic and dietary factors in human cancer causation

Columbia University Medical Center:
- Professor David Figurski, characterization of cancer genes
- Dr. Rong Cheng, statistics and bioinformatics
- Professor Nancy Reame, clinical trials

European Foundation for Oncology and Environmental Sciences “B. Ramazzini,” Bologna, Italy:
- Dr. Morando Soffritti, M.D., Scientific Director, animal models of cancer

Chromadex:
- Frank Jaksch, CEO, natural products chemist

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