



Florida Atlantic University licenses novel cancer therapy to CHS Resources LLC

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2006 JUL 25 - (NewsRx.com) -- Florida Atlantic University announced an exclusive license agreement with CHS Resources LLC for a novel cancer therapy which has emerged from its Center of Excellence in Biomedical and Marine Biotechnology.

CHS Resources will develop and ultimately commercialize patent pending technology for the treatment of skin cancer. The technology was discovered by Dr. Herbert Weissbach, director of the Center for Molecular Biology and Biotechnology and professor at FAU's Charles E. Schmidt College of Science, in conjunction with colleagues at the university. FAU researchers will continue to conduct scientific studies related to this research project, and CHS Resources will pursue business and commercialization opportunities.

"CHS Resources is extremely pleased to have licensed this exciting technology from Florida Atlantic University and is proud to align itself with their highly-experienced team of scientific researchers," said Stephen Chakoff, president of CHS Resources.

Initial experiments in Weissbach's laboratory were attempting to determine if cells could be protected from oxidative damage (damage to cells caused by oxidants or chemicals that capture electrons from other substances). What Weissbach and researchers at FAU serendipitously discovered was a novel combination of agents that work synergistically and selectively to target and kill cancer cells while preserving normal cells.

To examine whether this biological effect was a general phenomenon with cancer cells, Weissbach and his team conducted additional experiments with lung cancer cells, colon cancer cells, skin cancer cells and a melanoma cell line. Results of these experiments showed that all of the cancer cell lines that were used exhibited a similar response of enhanced killing of cancer cells, but normal cells were not affected.

"While cancer represents a collection of distinct diseases, oxidative damage stands out as one of the most likely culprits for cellular damage and therefore may be a major contributor to many cancers," said Weissbach. "Furthermore, recent scientific studies suggest that malignant cells have a different response to oxidative stress than normal cells. Our team has identified a lead compound that in combination with an oxidizing agent or agent that generates reactive oxygen species (ROS) preferentially targets and kills cancer cells."

Based on these findings, Weissbach and his team have formulated a topical skin preparation for CHS Resources which is being tested for actinic keratoses (pre-cancerous skin growth) in a proof-of-concept clinical trial underway at the renowned University of Alabama's Department of Dermatology. In addition to this clinical trial, Weissbach and his team are conducting ongoing research to determine the mechanisms of action of their unique formulation, and designing and synthesizing derivatives of the formulation as potential anti-cancer agents.

"A major focus of our next-generation therapy is to develop a selective, targeted therapy that only affects the cancer and does not damage healthy cells throughout the body," said Weissbach. "A key area of our current research is the discovery of new anti-cancer agents that exploit unique properties of tumors that induce or modulate apoptosis, which is the selective and premature death of cancer cells."

"This is just another example of the power of investing in centers of excellence to provide the commercial translation of research," said David Gury, executive committee and board member of BioFlorida and chair of FAU's Charles E. Schmidt College of Science advisory board. "The technology that is coming out of FAU's Center of Excellence will continue the process for developing high-wage and high-skill employment opportunities in the state and is the basis for the establishment of these centers."

Established in 2003, FAU's Center of Excellence in Biomedical and Marine Biotechnology was selected by Florida's Emerging Technology Commission as one of three centers in the state to receive \$10 million. Since receiving the initial funding for the center, FAU has secured an additional \$26 million from other sources including federal and private research grants. As a result, the center has emerged as an academic and industry partnership combining expertise in ocean engineering, marine biotechnology, functional genomics, proteomics and bioinformatics.

Researchers, scientists and students at the center are designing technologies to explore the sea, discovering new medicines from the sea and developing new therapeutics to combat agents of bioterrorism. The Center is also contributing to Florida's economic growth by creating spin-off companies and training a highly skilled biotechnology workforce.

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