

News Release

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UH CANCER CENTER RESEARCHER AWARDED \$3M TO RESEARCH CANCER TREATMENT POTENTIAL OF IRONWEED PLANT

HONOLULU – The National Cancer Institute (NCI) awarded a five-year \$3 million grant to a University of Hawai'i Cancer Center researcher to study how natural compounds in ironweed plant extract can be used to treat breast and brain cancers.



Ironweed grown on the Big Island

"It would be life changing for cancer patients if ironweed extract could help fight aggressive types of breast and brain cancers. Since the compounds are found in the plant, they are less toxic than traditional forms of treatment such as chemotherapy. This gives cancer patients a better quality of life when developed as drugs," said Dr. James Turkson, awardee and director of the UH Cancer Center's Cancer Biology Program. "Glioblastoma is an aggressive brain cancer that currently has no cure. In addition, the types of breast cancers we are targeting are some of the most life threatening breast cancers with few successful treatments."

Ironweed plant extract used in study from the Big Island and Thailand

"The vast natural resources of Hawai'i give our researchers a rare opportunity to make scientific discoveries of unique and significant proportions in treating cancer," said Dr. Randall Holcombe, UH Cancer Center's director. "This significant NCI award recognizes the breadth and depth of the natural product research focus of the UH Cancer Center, and highlights the national impact our research in Hawai'i has in the fight against cancer."

Turkson along with collaborators, Leng Chee Chang, Dianqing Sun, and Supakit Wongwiwatthanakit at the University of Hawai'i at Hilo Daniel K. Inouye College of Pharmacy published a study a year and half ago showing that the natural compounds from the ironweed plant were effective in killing breast cancer and brain tumor cells and blocked the development and growth of these cancers in the laboratory. In recognition of these preliminary findings, the funds were granted to

continue and expand the study.



Ironweed extract

"Our team of researchers at the UH Cancer Center and UH Hilo will now be able to probe deeper into the cancer treatment potential of Ironweed. The plant's extract is currently used in Southeast Asia for smoking cessation because of the affects the compounds have on the brain. Some of our initial findings suggest the plant's natural compounds interfere with key cancer-causing biological pathways in the cancer cell, thereby shutting down the ability of the cells to grow and multiply," said Turkson.

Breast and Brain cancer in Hawai'i

- Breast cancer is the most common cancer diagnosed in women in Hawai'i.
- An average of 125 women die from the disease each year in the state.
- On average 41 people in Hawai'i die each year from brain cancer.

*According to the Hawai'i Tumor Registry

NCI grant: 1R01CA208851

The University of Hawai'i Cancer Center through its various activities, cancer trial patients and their guests, and other visitors adds more than \$54 million to the O'ahu economy. This is equivalent to supporting 776 jobs. It is one of only 69 research institutions designated by the National Cancer Institute. Affiliated with the University of Hawai'i at Manoa, the center is dedicated to eliminating cancer through research, education, and improved patient care. Learn more at www.uhcancercenter.org. Like us on Facebook at www.facebook.com/UHCancerCenter. Follow us on Twitter [@UHCancerCenter](https://twitter.com/UHCancerCenter).