University of Hawaii Cancer Center Receives National Institutes of Health Research Project Grant
$2.44 million R01 grant will fund further development of novel anticancer drug

HONOLULU, HI – University of Hawaii Cancer Center researcher and professor of cancer biology James Turkson, PhD has been awarded a five-year, $2.44 million Research Project Grant (R01) from the National Institutes of Health. The funding will assist in the development of effective anticancer therapies against the Stat3 protein which has been identified as the main trigger in several different types of cancer including lung, breast, and pancreas.

Dr. Turkson previously received an R01 grant for research that led to the development of BP-1-102, a novel anticancer drug which essentially pulls apart the Stat3 protein rendering it ineffective in promoting the growth of tumors.

“The development of BP-1-102 was groundbreaking but we are looking to further increase its potency and solubility, decrease its rate of metabolism, and improve its stability in the body,” said Turkson. “This will require a team effort and the collaboration of several experts so that we can create a more efficient and effective treatment of tumors caused by the Stat3 protein.”

Working with Ho Leung Ng, PhD, an assistant professor in the University of Hawaii’s Chemistry Department, the research utilizes an imaging approach called x-ray crystallography to provide a detailed look at how the Stat3 inhibitor latches onto proteins. Other researchers collaborating in this study include Yuan Chen, PhD, director of Nuclear Magnet Resonance and a professor of molecular medicine at the City of Hope, in Duarte, California, and Patrick Gunning, PhD, associate professor of chemistry at the University of Toronto, Mississauga in Ontario, Canada.

Dr. Turkson’s previous research can be found in the May 22, 2012 edition of the journal, “Proceedings of the National Academy of Sciences.” http://www.pnas.org/

The National Institutes of Health (NIH), a part of the U.S. Department of Health and Human Services, is the nation’s leading medical research agency - making important discoveries that improve health and save lives. The Research Project Grant (R01) is the original and historically oldest grant mechanism used by the NIH. It is an award made to support a discrete, specified, circumscribed project to be performed by the named investigator in an area representing the investigator’s specific interest and competencies, based on the mission of the NIH.

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The University of Hawai’i Cancer Center is one of 66 research institutions designated by the National Cancer Institute. A unit of the University of Hawai’i at Mānoa, the Center is dedicated to eliminating cancer through research, education, and improved patient care. Construction is under way on a new state-of-the-art research center, opening in 2013 to better serve the people of Hawai’i and the Pacific. Learn more about the Center’s work at www.uhcancercenter.org.