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Cancer Center Announces Recipient of 2013 Weinman Innovator Award

The University of Hawai‘i Cancer Center is pleased to announce this year’s Weinman Innovator Award recipient Patricia Lorenzo, PhD, associate professor in the UH Cancer Center’s Cancer Biology Program and her team—co-investigators Marcus Tius, PhD, professor in the Cancer Biology Program, and Gideon Berger, PhD, assistant professor in the chemistry department of Hawai‘i Pacific University. The proposal titled, “Synthesis and preclinical evaluation of terpestacin and derivatives against hypoxia-inducible factor (HIF) pathways and tumor angiogenesis in cancer,” is the outcome of ongoing collaboration among their three laboratories.

Berger and Tius developed the method for synthesis of the compound terpestacin in 2007. Lorenzo’s laboratory analyzed most of the aspects of the biological use of terpestacin, such as solubility, stability issues, and effective concentrations. Terpestacin inhibits angiogenesis not only by destroying the assembly of blood vessels but also by acting on the cancer cells through a mechanism that impairs the ability of cancer cells to better tolerate low oxygen levels than normal cells. The applicants propose to analyze the anti-cancer effects of terpestacin with a focus on breast cancer, since the medical literature that suggests anti-angiogenesis therapy as a promising approach for breast cancer.

The Weinman Innovator Award, an annual grant of $50,000 will be used to develop accurate techniques for monitoring tumor status in patients who must receive non-surgical alternative therapies, to allow treatments to be assessed and, if necessary, adjusted on an individual patient basis. The award is funded through the $1.7 million Weinman Foundation Fund for Innovation endowment to the UH Cancer Center, provided by Virginia and Barry Weinman of Honolulu to support the development of cutting-edge cancer research.