

Medical News

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OHIO STATE CANCER DRUG BEGINS CLINICAL TRIALS TESTING

COLUMBUS, Ohio – Ohio State University cancer researchers are recruiting patients to a phase I clinical trial for a new drug designed to inhibit the growth of solid tumors.

The phase I clinical trial will assess the safety and early evidence of activity of AR-12, an oral drug that has shown in animal studies to inhibit the growth of solid tumors and lymphoma. Patients with advanced or recurrent breast, colon, lung or prostate cancers or lymphoma who have failed previous chemotherapy treatments will be eligible for the clinical trial, said principal investigator Dr. James P. Thomas, director of clinical trials at – The Ohio State University Comprehensive Cancer Center – James Cancer Hospital and Solove Research Institute.

Ohio State is one of three sites worldwide that will accept patients to the clinical trial, said Thomas.

Dr. Michael Caligiuri, director of Ohio State’s Comprehensive Cancer Center and chief executive officer of the James Cancer Hospital, credited the discovery to the collaborative efforts of Ohio State researchers who worked almost a decade to refine this novel mechanism for treating cancer.

“This is a ground-breaking achievement for cancer research at Ohio State, because it marks the first time that a therapeutic drug developed by our scientists will be tested in cancer patients,” said Caligiuri.

Cancer researcher Ching-Shih Chen worked with cancer and pharmacy colleagues at Ohio State to develop the small-molecule agent, originally called OSU-03012, which began clinical trial testing this month. The agent is being developed as AR-12 by Arno Therapeutics, Inc., a clinical-stage biopharmaceutical company focused on oncology therapeutics.

“The new agent works by inhibiting PDK-1 and PI3k/Akt pathways, a fundamental signaling point in cancer cells, making AR-12 potentially effective in a wide range of cancer types,” said Chen, a professor of pharmacy and internal medicine who holds the Lucius A. Wing chair of cancer research. “We are very excited. As bench scientists, our goal is to see our research translated into the clinic.”

Chen and his colleagues used the anti-inflammatory drug, drug celecoxib (Celebrex), a nonsteroidal anti-inflammatory drug, or NSAID, as a starting point to construct AR-12, a targeted anti-cancer agent. AR-12 works by triggering cancer cells to self-destruct. In 2004, the agent was accepted by the National Cancer Institute’s Rapid Access to Intervention Development program, which provides resources to hasten the development and testing of promising experimental drugs.

Dr. Michael Grever, chairman of the department of internal medicine at Ohio State and co-leader of the Experimental Therapeutics program at OSUCCC-James, was instrumental in moving this experimental agent from bench to bedside.

“AR-12 is a perfect example of translational research that may someday help cancer patients enjoy longer lives by suppressing tumor growth,” said Grever, who also is one of four members of the Scientific Advisory Board for Arno.

The research was supported by funding from the National Cancer Institute, U.S. Department of Defense Prostate Cancer Program, Ohio State’s Comprehensive Cancer Center,

Ohio State's College of Pharmacy, Hearst Foundation, Prostate Cancer Foundation, Lucius A. Wing Chair and Susan G. Komen for the Cure.

Ohio State researchers involved in developing the novel agent include Sam Kulp, Dasheng Wang, Julie Zhu and Aaron Sargeant.

The Ohio State University Comprehensive Cancer Center-James Cancer Hospital and Solove Research Institute is one of only 40 Comprehensive Cancer Centers in the United States designated by the National Cancer Institute. Ranked by U.S. News & World Report among the top 20 cancer hospitals in the nation, The James is the 180-bed adult patient-care component of the cancer program at The Ohio State University. The OSUCCC-James is one of only five centers in the country approved by the NCI to conduct both Phase I and Phase II clinical trials.

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Click here for a high-quality photo of Dr. James Thomas:

http://medicine.osu.edu/news/images/high_quality/thomas_james_853.jpg

Click here for a high-quality photo of Ching-Shih Chen:

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