

CONVERSATIONS

WITH ANGELIQUE MEDOW

Photography by Tyler Oxendine



Dr. Craig Dees

CEO of Provectus Biopharmaceuticals, scientist, inventor, cancer-combatant—and a trophied horseman with an electric-blue Ford Mustang Shelby and a bent for fine wine and classical music.

CRAIG DEES' latest claim is co-inventing “the world’s first natural cancer-killer.” His company’s new drug, PV-10, is designed for injection into solid tumors, is in the final phase of testing with the FDA, and is currently being administered to stage 4 cancer patients.

Dees’ background includes more than 20 years in senior management positions at Photogen Technologies, Oak Ridge National Laboratory, LipoGen, and TechAmerica, where his responsibilities included product design and development in the fields of ethical vaccines, cosmetics, human diagnostics, and over-the-counter pharmaceuticals.

Dees’ academic work—a doctorate in molecular virology from the University of Wisconsin, Madison; a Master of Science in immunology from Auburn; and a bachelor’s degree in microbiology from Brigham Young—is but a backdrop for his R&D Magazine 100 and Inventor’s Forum New Product awards, the first Raymond W. Sarber Award for outstanding research in virology, and 31 United States patents.

ANGELIQUE MEDOW: Can you tell us more about PV-10, Provectus’s “natural, cancer-killing drug”?

CRAIG DEES: PV-10 activates the body’s natural defenses—the immune system—to make the cancer cells commit suicide. PV-10 is like a broad-spectrum antibiotic for cancer.

AM: How does it work?

CD: The immune system of cancer patients ignores cancer instead of seeing it as a lethal intruder that needs to be

destroyed. With most current treatments for cancer, the drugs administered poison the patient just slightly slower than the cancer. PV-10 works with the immune system to help it “see” that cancer is bad and needs to be destroyed. The patient’s white cells aren’t killed—they come to a patient’s aid. The immune system goes about destroying the cancer by “telling” the cancerous cells to self-destruct.

AM: What makes the cancer cells self-destruct?

CD: That gets complicated. There are lysosomes inside each of our cells that have some nasty degradative enzymes inside of them, called acid hydrolases. Just like the acid in our stomachs cut up our food, the acid in each of our cells can cut up the cells they live in and make them self-destruct.

AM: Why has cancer been so difficult to cure?

CD: The reason why cancer is so “evil” is because it doesn’t obey the immune system’s self-destruct program. Cancer cells pull the “wool” over the “eyes” of the immune system so that cancer isn’t treated like a lethal intruder. The immune system’s job is to tell cells that are damaged—such as cancer cells—to either not divide or to self-destruct. Cancer does not obey the command from the immune system to self-destruct, and, over time, the immune system accepts the cancer cells as normal—and no longer “sees” the cancer cells as a threat.

AM: So PV-10 helps the immune system “see” the cancer cells and “obey” the self-destruct command?

CD: Yes. PV-10 moves into the cancerous lysosomes and tells them to break apart—and the cancer cell eats itself from the inside.

AM: How does the drug “make” the cancer cells self-destruct and not healthy cells?

CD: Because the drug targets highly acidic cells. Cancers are highly acidic. Normal tissue acidity is between 7.2 and 7.4. Acidity has to be held in that very precise range for the cell to function properly. The acidity of cancer cells can be as low as 6. By using acidity as the universal biomarker for cancer, our drug can specifically target cancer cells to self-destruct, while leaving healthy cells healthy.

AM: Why are cancer cells so acidic?

CD: Because they are growing out of control and not getting enough oxygen, so the cells produce lots of lactic acid. And the cells dump extra acid and lysosomal enzymes outside of their own cells so they can kill their “neighbors” and eat them up, too.

AM: What are the side effects of PV-10?

CD: Side effects are near zero. Very minimal especially compared to other treatments. It’s simpler to tell you that there are none of the usual symptoms of cancer treatment: The immune system is not compromised, people don’t lose their hair, and they are not sick.

AM: PV-10 hasn’t yet passed all FDA regulations and is currently administered to cancer patients in clinical trials or through “compassionate use” programs. How do “compassionate use” programs work?

CD: Compassionate use is an FDA regulation that makes promising drugs and devices available to patients with serious or immediately life-threatening diseases. In these cases, patients can request PV-10 by submitting a request to a compassionate use link on our website [www.pvct.com]. If accepted, a doctor at compassionate use sites can inject PV-10 directly into the cancerous tumors.

AM: Has PV-10 been given under any other circumstances?

CD: Yes! The first real patient was treated right here at the UT Vet school—a three-and-a-half year old German shepherd named Rookie, who had surgery and radiation to cure a tumor in its nose, but it grew back. Rookie received PV-10, the tumor disappeared—and the dog lived at least three more years.

AM: What types of cancer have been treated with PV-10?

CD: Liver cancer, breast cancer, melanoma, sarcomas, lung cancers. Every tumor you can find can be treated with PV-10.

AM: How long does the drug stay in the body?

CD: PV-10 stays in the tumors for months, but in the healthy cells it leaves in hours, going right out through the liver.

AM: What happens to the mass of tumor after treatment?

CD: The body cleans up all the dead stuff—it dissolves.

AM: If PV-10 passes the final stage of testing with the FDA, it can be prescribed for cancer treatment. When do you foresee this happening?

CD: Approximately a year-and-a-half to three years.

AM: During the interim, what are your goals for the company?

CD: We are a publicly traded company, so we have to keep an eye on that. But the underlying thing here is that we are treating very, very sick people, and we’d like them to get well. ✕

Angelique Medow is a 2012 Cityview Entrepreneur and the Principal of Building Ideas, which provides design, decorating, consultation, and project management for commercial and residential properties. She also enjoys exercising her degree in journalism from Arizona State University.