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Cancer researchers at the University of Colorado Anschutz Medical Campus and Wings of Hope for Pancreatic Cancer founder Maureen Shul, former Castle Pines mayor, are available for interviews. Additionally, the following story may be published in full or in part. Photo is attached.

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Photo caption:

Dr. Cindy O’Bryant, left, a researcher and doctor of pharmacy at the University of Colorado Anschutz Medical Campus, and Maureen Shul, executive director of Wings of Hope for Pancreatic Cancer. Wings of Hope has provided a \$50,000 grant this year for O’Bryant and her team of researchers to begin studying the benefits of bitter melon juice for pancreatic cancer patients.

‘Folk cure’ bitter melon juice holds medical promise for pancreatic cancer patients

Wings of Hope for Pancreatic Cancer Research supports early trials at Anschutz Medical Campus

By Peter Jones

It might sound like a beverage of no one’s particular choice, but in much of the world, bitter melon juice is a common ingredient in everything from popular drinks to gourmet sauces. For centuries, Asian and African cultures have relied on the vitamin-rich melon’s medicinal properties to treat a range of conditions—weight gain, blood and immunity disorders and even hangovers.

An excellent source of dietary fiber, the bitter melon contains twice the calcium of spinach, twice the beta-carotene of broccoli and twice the potassium of a banana—and now researchers are hopeful that this anti-inflammatory juice can be used to treat pancreatic cancer.

“When we think of cancer, we think of it as an inflammatory state,” explained Dr. Cindy O’Bryant, a researcher and doctor of pharmacy at the University of Colorado Anschutz Medical Campus. “There’s actually a fair amount of data and some animal studies to show that there are a lot of different compounds within bitter melon that have anti-cancer properties. Bitter melon can also be effective at treating diabetes. Some of these compounds can lower blood sugars and some of these compounds can cause reduced inflammation and potentially impact cancer cell growth.”

Thanks in large part to a \$50,000 grant from Colorado-based Wings of Hope for Pancreatic Cancer Research, O’Bryant and her team of CU cancer researchers will soon embark on the first phase in a series of trials to finally test the human tolerance and the medical efficacy of a fabled folk cure.

Contrary to a popular assumption, the gourd in question, commonly called the “bitter melon,” is not a fruit at all, but a vegetable. While the plant’s colloquially named juice is unlikely to be everyone’s cup of breakfast taste treat, the hopes of researchers are that the melon’s benefits will not be so bitter in the struggling area of pancreatic cancer research.

“In oncology, it's not really all that far of a stretch for us to use traditional or alternative-type approaches,” O’Bryant said. “We have many natural products that we use to treat cancer now. From that point, we then begin to synthesize those molecules that have the effect.”

The CU team’s bitter-melon research has already proven promising in mice, which were implanted with pancreatic cancer cells and split into four groups. One group only received saline. A second got bitter melon juice. A third group was injected with gemcitabine, a common chemotherapy drug used for pancreatic cancer patients. A fourth received a combination of the drug and the juice.

“The mice that got nothing—their tumors grew, of course. But the tumors shrunk in the mice that had gotten either bitter melon or gemcitabine,” O’Bryant said. “The combination of bitter melon and gemcitabine had the most decrease in growth. But one of the most interesting things is that when we stopped treating them, the patients who had gotten either bitter melon or the combination had a slower regrowth of those tumors. That’s really encouraging.”

The first phase of the human trials—likely to begin this spring, pending approval by the Food and Drug Administration—will be looking solely at the safety and tolerability of bitter melon juice among six to nine volunteer cancer patients. Given the melon’s established benefits for diabetics, researchers will be keeping a close eye on the patients’ blood-sugar levels.

The second phase of research will see a large population of pancreatic cancer patients being tested on the actual efficacy of combining the treatments of melon juice and gemcitabine.

The third and final phase will culminate by comparing the efficacy of bitter melon juice with the currently recommended standards of care for pancreatic cancer patients.

If all goes as planned, this trial will answer what may be the most important question of all.

“Is our treatment as good as everything else? This is usually where you enroll hundreds of thousands of patients in multi-site trials around the country. One group gets the study drug and one group gets the standard care and you compare their outcome,” O’Bryant said.

By the time the multi-tiered research is ready for the final life-changing stages, hopes are that success in the early stages will have led to the kind of major financial support that can only happen by way of initial seed money, which in this case came from Wings of Hope for Pancreatic Cancer Research, an organization founded by former Castle Pines Mayor Maureen Shul in 2012 after losing two of her family members to the disease.

O’Bryant says the funding from Wings of Hope—raised through the annual Evening of Hope and other year-round fundraisers—will be the crucial first step toward making everything else happen.

“If you don’t have people like Maureen and Wings of Hope, you just can’t even get the research off the ground,” she said. “You could have the best potential treatment option and the best idea in the lab, but no one would ever know about it. It doesn’t really go anywhere without the early funding.”

The funding for the bitter melon juice project was one of three \$50,000 grants awarded in 2019 by Wings of Hope to fund research at the CU Cancer Center.

For more information on Wings of Hope for Pancreatic Cancer Research, visit wingsofhopepcr.org.