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Ultra Botanica sells four nutritional supplement products through its online web store, as well as Amazon.com, through doctors' offices and through international distributors. (PHOTO PROVIDED BY OCAST)

Ultra Botanica pioneers use of curcumin as dietary supplement

Seated in an office just across N Lincoln Boulevard from the state Capitol complex, Adam Payne turns from his guests to type a word into a scientific database.

"Curcumin." Instantly, links to almost 9,000 scholarly articles on curcumin are returned from the keyword search on PubMed, the National Institutes of Health massive database of scientific research.

"It's one of the most-studied compounds in the history of man," Payne said as he turned back to me and my colleagues from the Oklahoma Center for the Advancement of Science and Technology (OCAST). "Unprecedented."

Payne is a longtime biotech entrepreneur and half the former Alpha-Bio Partners, which helped start up several biotech companies in the 2000s. Today he is co-founder and CEO of Oklahoma City-based Ultra Botanica LLC, which manufactures and markets all-natural dietary supplements based on curcumin.

My first question was simple. What is curcumin (pronounced "Kur-cue-min")?

Curcumin, it turns out, is the most active ingredient in a plant called Turmeric, which grows wild in Asian countries and is ground into a powder and used as a spice in cooking. Curcumin has been shown to provide potent antioxidant and anti-inflammatory benefits to humans.

Decades ago, scientists began to notice that the folks who had a lot of Turmeric in their diet showed lower rates of Alzheimer's disease, and



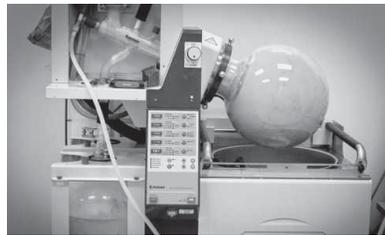
Jim Stafford
BIO MATTERS

prostate and pancreatic cancers. "When scientists started to study Turmeric, they identified curcumin as the active ingredient, and that's where all these studies were done on the benefits of curcumin in these diseases," Payne said. Because it doesn't digest well in crystal form, ingestion of massive quantities of the extract was required to see any benefits.

Then a couple of scientists at the University of Oklahoma Health Sciences Center, Hal Scofield, M.D., and Biji Kurien, Ph.D., began working on a liquid formulation. Payne became acquainted with Scofield and Kurien while he worked at Oklahoma City's Haus Bioceuticals, where he was chief operation officer and president. He was intrigued by their curcumin research.

"We had an 'aha' moment back in 2013-2014," Payne said. "We knew curcumin bound beautifully to proteins. We thought, if we bind liquid curcumin to protein, then maybe as the body is digesting the protein, the curcumin would be transported right into the body?" In animal tests, that's just what happened.

Today, "UltraCur" branded nutritional supplements are manufactured in Oklahoma City under strict FDA guidelines using only all-natural, U.S.-based products. UltraCur claims to be the only curcumin on the mar-



Adam Payne, CEO of Oklahoma City-based Ultra Botanica LLC, and associates from the OU Health Sciences Center were able to bind liquid curcumin to protein in order for the curcumin to be transported into the body more quickly. (PHOTO PROVIDED BY OCAST)

ket that can reach clinically relevant doses from a single capsule.

Ultra Botanica produces its supplements in a 25,000-square-foot building that was once home to a manufacturer of nuclear medicine pellets used to treat cancer.

Payne's company uses only about 4,000 square feet of the space, which leaves plenty of room for other potential tenants. Payne says that Ultra Botanica "bootstrapped" its early financing needs with investment from friends and family, SBA loans, along with an OCAST Technology Business Finance Program (TBFP) grant through i2E Inc. It used the TBFP to purchase a 30-cubic-foot bio reactor that will allow it to increase production exponentially.

"Our sales right now are about \$22,000 to \$25,000 a month," Payne said. "We're anticipating growing that to \$50,000 to \$75,000 over the next six months or more."

Ultra Botanica sells four nutritional supplements at its online store at ultra-botanica.com, as well as

at Amazon.com, through doctors' offices and international distributors.

"If you look at our reviews on Amazon, 99 percent are 5-star reviews," Payne said. "Doctors are becoming our strongest advocates of how our product can help people. They see a major result."

Edmond physician Bryan L. Frank, M.D., an anti-aging and regenerative medicine specialist, calls curcumin one of the most applicable natural therapeutics his patients have to fight aging and degeneration.

"The impact of inflammation, and its treatment with curcumin, are demonstrated to have clinical effects for neurological health, metabolic health, vascular issues, generalized aches and pains, and more," Frank said.

"It is an amazing product," Payne said. He has the scholarly articles to prove it.

JIM STAFFORD WRITES ABOUT OKLAHOMA INNOVATION AND RESEARCH ON BEHALF OF THE OKLAHOMA CENTER FOR THE ADVANCEMENT OF SCIENCE & TECHNOLOGY (OCAST).