

Nano Science, Technology and Industry Scoreboard

\$1.1 Million Financial Support for Developing a Polymer-based Nanoadditive

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MITO Material Solutions has received \$ 1.1 million financial support to develop its polymer-based nano-additive product that makes composite materials harder, lighter, and more durable. The Oklahoma Center for Advancement of Science and Technology has awarded this startup \$ 390,000 for three years and the National Science Foundation Small Business Innovation Research Program has supported it with \$ 954,000.

<u>MITO Material Solutions</u> produces a nano-additive that helps make composite materials tougher, lighter and more durable. The company recently received help in the form of \$1.1 million in grants for product development, which means the money can only be used to improve the product instead of paying for business operations.

Based on research conducted at and patents owned by Oklahoma State University, MITO creates hybrid nanoparticles using graphene oxide and another particle known as POSS, into resins, solvents and coatings.

After it's cured the microscopic mixture resembles a honeycomb structure and can then be added to layers of fiberglass, Kevlar or other materials. The graphene oxide also helps to conduct heat.

MITO was launched last year and quickly earned funding. The Oklahoma Center for Advancement of Science and Technology awarded a grant for nearly \$390,000 over three years, and the National Science Foundation Small Business Innovation Research Program has given MITO \$954,880. The money will be used to accelerate research and product development, which will include new variations of MITO additives.

"We had our fair share of trials and heartaches along the way," co-founder Haley Keith said.

"But as of August, things are looking up. We're standing now with two full legs underneath us."

One of those legs is the million dollars of grant money, and the other is MITO's induction into the Techstars accelerator program that has taken Haley and her husband, fellow co-founder Kevin, to Indianapolis for several weeks.

"We're working with The Heritage Group, which is a company that owns multiple subsidiaries that innovate specifically in our space, and are very plugged in to network and suppliers and customers that we'll be targeting," Keith said.

MITO closed a seed round in 2018 with local angel investors. Keith said she will be able to formulate goals for the next funding round after the accelerator program is finished.

The hybrid nanoparticle technology was developed by materials science professor Ranji Vaidyanathan at OSU's Helmerich Research Center in Tulsa. Haley and Kevin Keith launched MITO as a classroom project, eventually developing a business plan and scouting the market potential.

MITO scaled up production by 22 times, with 10 pilot customers in the first six months of operations.

Read the original article on Oklahoma City News.