

OTAM Pours Talents into Beet Juice Formula

The Office of Technology Asset Management (OTAM) recently undertook a mission to develop better-tasting beet juice. OTAM is best known for helping Medical Center and Wake Forest University inventors obtain patents, and then licensing those patents to for-profit companies for commercial development.

Whether their product will start a beverage craze to rival Pom Wonderful or Gatorade remains to be seen, but the experience has expanded OTAM's commercialization repertoire and promises to help advance the research that sparked it. "This project is different because it's a trade secret," said Camilla Hansen, PhD, an OTAM licensing analyst. "Usually, we're in the patenting business, and in this case, we had to rethink our protection strategy. Also, we were able to add a lot of value on the development side before reaching out to licensees. This shows that OTAM takes an active role in commercialization and tries to help inventors in any way we can to get their inventions closer to the marketplace."

Study Leads to a New Product

The project originated after a group of Reynolda Campus and Medical Center collaborators conducted a study that showed that high concentrations of nitrates in beet juice help boost blood flow in the brains of older adults. Wake Forest University researchers Gary Miller, PhD, and Dany Kim-Shapiro, PhD, along with the Medical Center's Jonathan Burdette, MD, professor of Radiologic Sciences (Radiology), led the study.

The results suggested a way to counter the reduced blood flow in the brain's frontal lobes that scientists associate with dementia and poor cognition. The researchers hoped to expand their original study, which had 14 participants, and to develop a commercial product with health benefits, but they recognized that bitter-tasting beet juice would be off-putting to most volunteers and, ultimately, consumers. They turned to OTAM for help in late 2009.

OTAM located and hired a beverage formulator, who altered the taste while keeping the beneficial qualities of the nitrates. Then, they contracted with a bottler to produce a pilot-scale run of the new beverage. The bottles of juice are now available for use by the research team, as well as for marketing to potential licensees.

Sweet Taste of Success

"We were very happy that some of the professional contacts we've developed over the years proved useful in bringing this product closer to reality," said Dean Stell, associate director of OTAM. "Just the research benefit of getting to this point is a win for the entire Wake Forest organization, and I think we will make a nice return on our investment, too."

Hansen said that OTAM hopes to partner with a company and see the formula sold commercially soon. That would be considerably faster than OTAM's typical technology licenses, like therapeutics and medical devices, which often require years of clinical trials before seeking FDA approval and getting to patients. Stell said the eventual licensee may market the formula in

various ways across age groups, because the nitrate-rich juice improves overall cardiovascular health.

Stell and Hansen described the taste of the beet juice formula as “very sweet.” While they hope its licensing revenue earns the same description, the relatively small investment has already returned dividends.”

Camilla and I have learned a lot working on this project,” Stell noted. “This is not something for which there is a playbook. OTAM always has some projects that are more experimental, and learning how to develop, protect and license a trade secret will prove useful in the future.

“It’s truly a treat to work with such an experienced and knowledgeable group of people,” he said. “OTAM is a great partner for innovators seeking to move their inventions forward.”