SBIR/STTR SUCCESS

LIFT LABS

For Lift Labs, stabilizing technologies have led to a stable and growing business. Lift Labs produces a compact and portable device with a spoon, soup spoon, or fork attachment that detects tremors and uses tiny actuators to stabilize the utensil. Stabilization allows patients with Essential Tremor and Parkinson's Disease to feed themselves more easily. The company is a graduate of the National Institutes of Health (NIH) SBIR Program and was acquired by Google Life Sciences in September 2014. Its Phase I SBIR award enabled Lift Labs to perform feasibility testing on the Active Cancellation of Tremor (ACT) device and a Phase II grant led to further development and clinical trials on the ACT device. In addition to the SBIR awards, Lift Lab utilized NIH's Commercialization Assistance Program, which helped the company navigate regulatory hurdles and accelerate the process of bringing its device to the marketplace.

PHASE III SUCCESS
The company is a graduate of the National Institutes of Health (NIH) SBIR Program and was acquired by Google Life Sciences in September 2014.

AGENCIES
HHS (NIH)

SNAPSHOT
Liftware utensils allow individuals with tremors to eat more easily by automatically stabilizing and shaking 70% less than a user's hand.

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Lift Labs is an example of the ability of the SBIR program to seed innovative, life altering technologies, while generating economic benefits. The founder of Lift Labs, Dr. Anupam Pathak, as a graduate student working on weapon stabilization technology recognized the implications of his work in offsetting tremors. "My PhD research centered on vibration and motion cancellation, which is basic science that could have new application areas," said Pathak, "After graduating, I talked to neurosurgeons, did research, and found out that Parkinson's and essential tremor effects over ten million people." Upon graduating, he established Lynx Design (predecessor to Lift Labs), applied and won Phase 1 SBIR funding as the sole employee. The funding was through the National Institute of Neurological Disorders and Stroke (NINDS) and specifically for small businesses doing research and development on products (devices, therapeutics, diagnostics, research tools etc.) that have the potential to reduce the burden of neurological disease. Dr. Pathak carried out the Phase I award research by himself, the results proved promising and lead to the SBIR Phase II award in 2011.

In 2013, Lift Labs received a small private round of funding enabling it to launch its newly branded product Liftware™, a spoon that uses sensors to detect hand tremors and counteract them to minimize the spilling of food. The initial launch generated a lot of interest online and the product demonstration videos received millions of views. By the summer of 2014, Lift Labs had approximately seven employees, and by the fall of 2014, the company had been acquired by Google. Within four years, the technology

has gone from concept to product, and now has the opportunity to help millions of Americans with hand tremor to eat more easily. By reaching out to the community and meeting with users in local support groups to get feedback for his product, Dr. Pathak has continually refined his product and the goals of the company.

While some might see the company's acquisition by Google Life Sciences as the end of the road for a company, Dr. Pathak sees it as opportunity for more growth. "We've been given more resources to work with, but the company itself and its focus hasn't changed – our goal is to keep going and gain a better understanding of what is needed and to quantify symptoms in individuals." These efforts will hopefully lead to a new generation of assistive devices. Another growth opportunity is in assessment technology for these diseases – Parkinson's and other similar diseases are currently assessed on a very subjective scale, however, Lift Labs hopes to develop new, better ways to measure objectively. "Right now the assessment is observation based, it's like trying to determine BMI by sight, not by putting someone on a scale," said Dr. Pathak.

Liftware™ in action

The company's commitment to its local supply chain in California is a key component of Lift Labs' success. All of its manufacturing is done in California and the two partners enjoy a very close relationship – Lift Labs engineers and its manufacturer worked closely for six months to set-up the manufacturing line and to ensure that it was working correctly. Lift Labs carries out design and research and development in-house, but outsources all manufacturing to its local partner. The goal of this close working relationship is to guarantee that customers are pleased – during the holiday order rush the manufacturers worked overtime to fulfill the orders and were inspired by the gratitude of the customers. Anupam Pathak, CEO of Lift Labs asked customers to send thank you notes to the manufacturing team to show them how meaningful the products are to the users.

In reflecting on lessons learned and the company's path to success, Dr. Pathak noted that more academics should be aware of the SBIR program. By working with SBIR it allows academics to take more risks and gives them the opportunity to learn how to start a viable business. "Stay focused on one key target, don't over-extend early, pick one product, and focus on it," says Dr. Pathak.