

INNOVATING A HEALTHY START FOR BABIES AND A DIAGNOSTIC COMPANY

BAEBIES' MISSION as a diagnostic company was clear. Worldwide, more than 100 million babies go unscreened for disorders that can be successfully treated. Baebies believes that everyone, regardless of socio-economic status or geographic location, deserves a healthy start. But to fulfill its calling, Baebies first had to navigate the tricky landscape of raising money and surviving its time in the business world's Valley of Death.

Promising technologies often take time to develop and commercialize – time when paying customers are not yet in the picture. The technology that underpins Baebies sprung from intellectual property first developed at Duke University that fueled another company that was eventually sold. Baebies' co-founders were involved in the earlier start up and learned valuable lessons in the process, including the value of the One North Carolina Small Business program.

"It is an invaluable part of the process for small businesses in North Carolina," says Dr. Vamsee Pamula, one of Baebies' co-founders. "We have found the additional investment from the state to serve as an integral part of kick starting many of our projects."

One of Dr. Pamula's 'lessons learned' from the earlier company was the key role federal grants play in launching a life science company, such as Small Business Innovation Research (SBIR) grants. There often is no other path for getting such a company off the ground. Baebies' founders also learned quickly that finding loans or grants to match the federal money would play a critical role in the company's success.

"I really like the [One NC Small Business] program because it's a great way for companies in their infancy to get a little bit of extra money [with] fewer restrictions," says CEO and co-founder Richard West. "NIH funds cannot be spent on intellectual property or some other things that are necessary for companies, so having those additional funds [from the state] is very useful."

The company's success at gaining early-stage funding has enabled it to address an important gap in the marketplace, as many infant disorders have promising treatment protocols but often lack the early screening and diagnostic tools to find problems in time to make a difference.

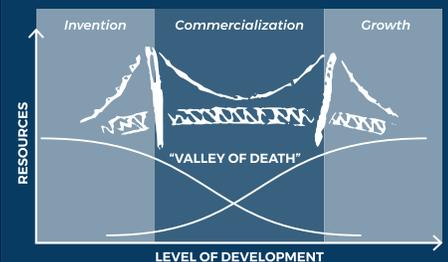
In addition to its newborn screening platform "SEEKER," Baebies is developing a near-patient newborn and pediatric testing technology called "FINDER." "Screening is typically done before symptoms present," West explains. "Diagnostics is more [for when] you have suspicion of disease. We're pushing precision diagnostics to provide a better answer for physicians about why the child has that disease, the stage of the disease, and therapies that might be effective. You want to know all of those things, but there's a lot of guesswork because [doctors] don't want to keep taking large samples of blood from babies, especially sick babies. We can do a broad range of tests on a very small sample."

In terms of growth, over the last four years Baebies has created a substantial number of jobs in the Research Triangle area. "We're now four years into [Baebies] and we've grown from our founding to about 90 people at a steady but rapid rate. We also feel like we don't have enough people to do all the things we're doing because there are a lot of problems to solve for babies in this field," said West.

ABOUT THIS SERIES

Entrepreneurs and business owners face many challenges during the life of their companies, but none strike more fear and difficulty than the 'Valley of Death.'

A familiar phrase to venture capitalists and business executives, the Valley of Death is the period of time a company must navigate between the discovery of a business-worthy idea or technology and the point when the company generates enough paying customers and revenue for long-term survival, job creation, and profits. Finding funding sources to bridge this gap is an ongoing struggle.



The One North Carolina Small Business Program helps promising, technology-oriented companies in the state survive and thrive. By providing matching dollars to companies that have already won highly-competitive federal technology grants, the OneNC Small Business Program is an important solution for North Carolina companies facing one of the business world's toughest challenges.

BRIDGING THE VALLEY OF DEATH: A One North Carolina Small Business Program SUCCESS STORY



one north carolina Small Business Program

ABOUT THE PROGRAM

- Established in 2005 (§ 143B-437.80-81), the Program awards matching funds to small businesses that receive federal Phase I Small Business Innovation Research (SBIR) or Small Business Technology Transfer (STTR) Phase I grants.
- SBIR and STTR grants are the single largest source of early-stage technology development and commercialization funding for small businesses (more than \$2 billion annually) – larger than all private sources combined.
- Yet the federal grants are often not large enough to allow the small businesses to complete their work, and federal restrictions on the uses of grant funds often limit the businesses.
- The North Carolina Program supplements and leverages the federal funds, helping homegrown businesses commercialize innovative technologies & create jobs.
- Since Program Inception:
 - 398 grants awarded
 - Over \$24.7 million awarded
 - 255 different companies in 25 counties and 41 cities across the state have received funding
 - More than 900 jobs created or retained
 - More than \$500 million in external capital investment
 - More than 100 patents and copyrights already received, and another 250 applied for and under review
 - More than \$125 million in total sales resulting directly from the technology developed with Program funding
 - More than \$1.5 billion in total sales resulting indirectly from licenses of the technology developed with Program funding
 - More than 95 percent of the grantee businesses agree that the Program encourages the establishment and growth of high-quality, advanced technology firms in North Carolina
 - For more information, visit: nccommerce.com/sti/grant-programs



ABOUT THE COMPANY

Baebies develops and delivers innovative products and services based on digital microfluidics and other technology to advance newborn screening and pediatric testing worldwide.



Baebies FDA-cleared SEEKER® is a newborn screening platform for lysosomal storage disorders.

- Year Founded: 2014
- Office Location: Durham, N.C.
- Current Number of Employees: 90
- Website: baebies.com
- Federal SBIR/STTR Funder: U.S. Department of Health and Human Services - National Institutes of Health
- One NC Small Business Grant Recipient in 2014



The Baebies team, which doubled in size in 2018, are located in the Durham, NC headquarters.



NORTH CAROLINA
Department of Commerce
Science, Technology & Innovation

nccommerce.com/sti