



## Funding San Antonio's Biotech Ecosystem

The risks involved in starting a new biotech company differ greatly from those encountered in more typical tech startups. The creation of new biotech startups in San Antonio requires more than critical mass in a robust research community and the dedicated drive for innovation.

It also takes money – incredible amounts of venture capital.

In 2008, [Alan Dean](#) and Dr. [Paul Castella](#) co-founded [Targeted Technology](#), an early stage investor in more than 20 medical and life science companies, working through its two portfolio companies, [Fund I](#) and [Fund II](#). [Cytocentrics](#), for example, is in the Fund II portfolio.

“When I first moved here in 2001, there was much less biotech in general,” said Castella, Targeted Technology’s senior managing partner, as he explained to the Rivard Report how biotech startup capital works. “San Antonio’s high quality of life and low cost of living helped bring the first biotech companies.

“Alan (Dean) and I have been working together since 2001, maybe earlier,” Castella continued. “He was the head of technology licensing at the (UT Health) Science Center, and I had licensed some materials for a diagnostic test at my first company. We ended up moving the company ([Xenotope Diagnostics](#)) to San Antonio from California and developed the (world’s only rapid) test. (After) I licensed the test through Genzyme, I decided to stay in San Antonio and was invited by Alan to work with his office to look at other available technologies and formed two companies.”

In starting these companies, Castella’s biggest hurdle was raising money.

“We had good support from the local investment community in San Antonio but there was no dedicated venture fund for life science companies, especially in the early, risky stage,” he said. “This need was identified from my experience in starting these companies.”

Dean and Castella formed the Targeted Technology venture fund – the first one launched in 2008, the second in 2013-14. To date, Targeted Technology has invested in 20 companies, the majority of which are in San Antonio or have been brought in from places like Kentucky or Germany, such as Cytocentrics.

“There are so few funds that will invest in these types of (biotech) companies because it’s so management intensive,” Castella said. “It’s so specialized, you have the normal issues of funding, plus the specific issues relating to science, medicine, intellectual property, regulatory requirements, and the longer life cycle for development. The average medical tech device approval route is over \$20 million, and for drugs it is much more.”

Typically, the risk in biotech ventures is short-term because a drug or medical device either works or fails in clinical trials.

One of the greatest questions is whether there is enough venture capital once a product reaches the final stage of [Food and Drug Administration](#) (FDA) approval. Companies need to raise enough money

to continue research during a development period that can take a decade or longer and easily cost upward of \$1 billion.

The risks are even higher in emerging biotech fields like gene therapy, where new companies are developing applications in a scientific field that is relatively new to both FDA regulators and potential investors.

“Critical mass is important,” Castella said. “We’ve worked with the City to bring in more companies like Cytocentrics. The fund operates like an incubator, so when Cytocentrics (executives) came to visit San Antonio, they saw a level of activity and local resources that support a biotech company. The City also showed them how inviting it would be to set up here and introduced them to other researchers at UTSA and the Health Science Center.”

The importance of “deal flow” also was stressed by San Antonio Economic Development Corporation Executive Director Ed Davis.

“Deal flow is the number of startup companies available locally for investors to look at for potential funding,” he explained. “You must have capital flowing for that deal flow to attract companies. You also need the infrastructure – the lawyers, accountants, lab facilities, mentors, and scientific networking community, along with your skilled people. All these help create the biotech ecosystem.”

Davis said deal flow has improved over the last several years. The City has done its part in improving the outlook from just a few years ago when San Antonio had a relatively small amount of venture capital focused on the local biotech industry.

“I think it has changed,” City Manager Sheryl Sculley said. “We helped recruit the 2014 [World Stem Cell Summit](#) here for the bioscience industry. We also created our San Antonio Economic Development Corporation in May 2010 to work with bioscience startups and have invested nearly \$14 million into bioscience startups over time.

“We’ve got to get San Antonio on the map working with our partners,” Sculley continued. “We can’t do it alone so partnerships are key.”

San Antonio’s biotech corridor is informally located “up and down IH-10 between UTSA and the Health Science Center,” [BioMed SA](#) President Ann Stevens said. “The Texas Research and Technology Foundation set up space for about 10-12 small companies in a technology park near IH-10 and De Zavala, with [Randy Goldsmith](#) serving as the business mentor for the foundation’s accelerator, known as [T3DC](#). That served as the city’s functioning biotech ecosystem for several years.

“InCube is also located here in this technology park and has ended up expanding its operations into one of the buildings formerly used by T3DC,” Stevens added. “As a result, there’s just not enough space – especially the kind of specialized wet lab space that many biotech companies need.”

Both UTSA and the Health Science Center are focused on developing [bioscience incubators](#) on their respective campuses, mostly for university-sponsored biotech research. There also are efforts to develop an [incubator for private sector companies](#) to start up in the biomedical industry.

“I can tell you that we’ve had a functioning biotech ecosystem for several years now, but that ecosystem is evolving,” Stevens said. “Bioscience needs specialized facilities like wet lab spaces and

access to expensive research equipment at nearby universities, and there are lots of players devoting time and energy to this.”

While the growth of San Antonio’s biotech cluster has inspired much confidence over the past 10 years, there’s still work to be done. And all that work will require capital – lots of it, from multiple sources.

Source: <http://therivardreport.com/funding-san-antonios-biotech-ecosystem/>

October 7th 2016