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Building Blocks for growth

To reach next level, DNA Software re-engineers itself, software

By [Tom Henderson](#)



Bridging the gap between providing a groundbreaking niche software for researchers and making it easy to use has proven to be a challenge for **DNA Software Inc.**

But the synthesis is now under way.

DNA Software, an Ann Arbor company spun out from **Wayne State University**, will unveil what is, in effect, the 2.0 version of the firm at this week's annual **qPCR Symposium USA** in San Francisco, an annual meeting for biotech researchers who use a process called polymerase chain reaction for copying strands of DNA.

DNA Software was spun out from WSU nearly 11 years ago, and since then has been something of a hybrid -- part research firm supported by large federal grants, part commercial seller of powerful software for helping university, biotech and pharmaceutical researchers with projects involving novel uses of RNA and DNA.

The reason it's a WSU spinoff in Ann Arbor? When it was formed, there was no **TechTown** or entrepreneurial culture in Detroit to support emerging Detroit high-techs, said founder, President and CEO John SantaLucia. If you were starting a new tech company then, Ann Arbor was the place to be. It also had a much larger population of potential customers than Detroit.

The company has developed a national reputation with researchers, resulting last March in SantaLucia being named the WSU Distinguished Entrepreneur in an awards event at the **Whitney** restaurant. It has been granted one patent for its ability to do 3-D modeling and has two under review.

There are two main reasons why the company needed a reinvention as it tries to gain market share from two much larger competitors, **Life Technologies Corp.** and **Premier Biosoft**, both based in California, said SantaLucia, currently on leave from his post of professor of biochemistry at WSU.

No. 1 is that the company, which employs 12 and has won nine federal grants over the years, can no longer count on federal funds to augment its current revenue of about \$600,000. Revenue last year was about \$500,000, according to Joseph Johnson, vice president for business development, and is projected to hit \$1 million next year.



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SantaLucia said the company lost out on a phase-two Small Business Innovation Research grant early this year despite a high score for its application. He said officials with the **National Institutes of Health** told him they are hunkering down because of the political climate in Washington -- conservatives have been critical of federal research spending -- and the economic climate.

No. 2 is that a criticism of the company over the years by users is that the software is difficult to master and use. Often companies would assign a single researcher to try to master it on behalf of his or her colleagues -- and that is expensive, particularly for university researchers on perpetually tight budgets.

To boost revenue, which will help wean DNA Software from the need for government grants, the company is unveiling a new line of easier-to-use software products at the symposium. The key product is called **PCR Pathfinder**, which will provide users with a cloud-based platform for the first time.

"We tried to model it after **TurboTax**. It leads you through the process by asking you questions, such as, "What kind of assay do you want to run?" Any biologist can use it," said SantaLucia.

That will eliminate problems with installing software and many of the difficulties of mastering it, said SantaLucia. Moreover, the company will make it available for free to university researchers. Formerly, they had to pay \$1,500 each for a license to use a similar product.

It also allows Mac users to be customers. Previous software versions have been available only to PC users.

The plan, said Johnson, is to get graduate students and post-docs used to the software so when they move on to private industry, or start their own companies, they'll want to buy it.

Johnson credited **Ann Arbor Spark** with helping the company in its reinvention, both through helping it rethink its business model at an entrepreneurial boot camp earlier this year and by offering consulting services.

For years, DNA Software's products have been highly regarded for their capabilities, including providing three-dimensional modeling. Testimonials are easy to come by.

Said Nancy Schoenbrunner, director of chemistry and innovation technologies for **Roche Molecular Systems**, a California-based division of Switzerland-based **Roche Holding AG**: "I've been using DNA Software for a long time, at least eight years. I want to have the best tools available, and that's why we use it."

Edward Sekinger, a senior research scientist at **Luminex Life Sciences**, a unit of Texas-based **Luminex Corp.**, which makes materials and devices for biotech researchers, said DNA Software's tools dramatically cut the time he'd need otherwise for experiments.

One of Sekinger's responsibilities is to evaluate and recommend technologies to other Luminex researchers, "and DNA has passed my tests. I've recommended it. It performs extremely well."

"The software tells you if particular DNA strands will interact the way you want them to. By hand, it would be so much more time-consuming," said Lynn McGregor, a doctoral student in chemical biology who works in the lab group of noted **Harvard University** researcher David Liu.

When told that DNA officials realized they had to make their lines of software more user friendly, Schoenbrunner said: "I've been telling them that for years. The software is so powerful, but it can be hard to use."

"We were building an awesome mousetrap no one could use," said Johnson.

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