



From idea to product

Invetech introduces CONNECT members to the realm of contract R&D

By Joe Tash

Over its 30-year history, Australia-based Invetech has helped bring thousands of products from the idea stage to market, turning the ideas of researchers and inventors into salable products.

The fruits of the company's labors — from high-tech devices that test blood samples and extract genetic material from human tissue, to simpler projects such as a new mousetrap and wine spigot designs — were on display during a recent open house at the company's

San Diego office, located in a Mira Mesa industrial area.

CONNECT, a nonprofit "business accelerator" formed in the 1980s with a mission to help educate academic and business leaders in San Diego on how to commercialize discoveries from San Diego's vibrant research community, worked with Invetech to publicize the event. CONNECT has launched an initiative to raise awareness of contract services organizations, or CSOs, such as Invetech, that have the expertise and infrastructure to transform ideas into commercial products, said Duane Roth, CONNECT CEO.

Roth, Invetech President Fred Davis and Ben Sullivan, the chief scientific officer for TearLab, a company that worked with Invetech to create a diagnostic tool that analyzes human tears, mingled with attendees at the event, many of whom were in, or about to move into, "the proof of relevancy" stage of their operations.

In the past, Roth said, companies spent millions of dollars and wasted valuable time setting up their own research facilities to prove the viability — the "proof of relevancy" — of their ideas.

Roth noted that within five miles of Invetech's offices are 48 research institutes that receive large amounts of public dollars to fund their work. "From all that is coming ideas," Roth said.

The problem, he said, is taking those ideas to the next level, which is where companies like Invetech come in. "It will be the future of proof of relevancy," Roth said.



Chuck Mays, Invetech vice president, with the better mouse trap.



From left, Ben Sullivan, chief scientific officer, TearLab Corp; Duane Roth, CEO, CONNECT; Fred Davis, president, Invetech.

Because of their experience in developing products, Roth said, CSOs offer a faster, cheaper alternative to a company conducting its own research and development.

Invetech, which is based in Melbourne, opened its San Diego research and development facility in October 2007, said Richard Grant, a company vice president who heads up the local office and its staff of 10 engineers. Before that, Invetech maintained a business development presence in San Diego for several years.

Some 200 engineers, designers and scientists work from the company headquarters in Melbourne, and Invetech also maintains an office in Zurich, Switzerland.

Company president Fred Davis, who was in San Diego for last month's open house, said once an idea is presented, Invetech assembles a team of experts and "a year later you've got a product."

After the product is developed, ownership remains with the originator, and Invetech moves on to its next project, Davis said. "You've turned it on when you need it and off when you don't," he said.

Roughly two-thirds of Invetech's projects are in the biotech field, and its strengths are in mechanical and software engineering and electronics, said Grant.

One product on display was developed to extract ribonucleic acid, or RNA, from tumor cells. The idea, said Grant, is to "teach" a cancer patient's own cells to attack cancer cells and inject them back into the body, thus creating a treatment designed for a specific patient. The technique is targeting a range of cancers and HIV in clinical trials.

At the other end of the technological spectrum is a round, plastic device that sells for just a few dollars in retail stores. "I can put my hand on my heart and say we developed a better mousetrap," said Chuck Mays, Invetech vice president for business development and product innovation.

The device, about the size and shape of a hockey puck, is billed as the world's first "no see, no touch" mousetrap, because the rodents enter into an opening on the side of the trap and are lured toward the trap mechanism with bait. The trap works by squeezing the breath from its furry targets, which Mays said is considered a humane method of killing them.

By twisting the top of the disc, the entryway closes, and users can dispose of the trap without having to see or touch the dead mouse.



Overview of Invetech open house

Another device on display is used in Australia, where drought conditions have forced homeowners to install rainwater collection tanks. Invetech helped produce a device that switches the water flow from the tank to a piped water supply when the rainwater tank is empty.

Sullivan, of the San Diego-based TearLab Corp., said he and his associates have spent 10 years researching their diagnostic tool that analyzes minute samples of human tears. The device consists of a handheld computer that uses a disposable chip to touch the corner of the eye and gather the tear sample.

The federal Food and Drug Administration recently approved the device for use in diagnosing dry eye disease, a condition associated with aging in which a person's tear glands don't produce enough tears. TearLab's device, said Sullivan, will allow doctors to diagnose the condition earlier, leading to more effective treatment and fewer complications.

The company is working to develop other applications for its device, such as allowing diabetics to check their blood sugar level without having to be stuck with a needle.

Roth said San Diego needs many companies such as Invetech to keep its research ideas moving to the market.

"You need a lot of slots when you're starting hundreds and hundreds of product ideas," he said.

The key is to increase the visibility of the contract service providers, and organize them so everyone can find them, he said. That way, he said, if one company is booked up at a given time, another will be able to step up and take on the project.

"The more awareness there is, the more money comes in and the more projects get done," Roth said.