



## Pure Bioscience Sets A Silver Standard for Germ-Killing Products

By Juha-Pekka Tikka 3/23/09  
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Pure Bioscience founder and CEO Michael Krall smiled knowingly when he met me recently at the company's El Cajon, CA, headquarters. "You chose a great time to write this story," he told me. "We are now starting to enjoy the fruits of our labor. There's gold in silver, oh yes."

Silver is the key ingredient at the heart of Pure Bioscience (NASDAQ:[PURE](#)), a company with just 25 employees that has developed a patented formulation known as SDC—silver dihydrogen citrate—as a new type of disinfectant. The company describes SDC as "an electrolytically generated source of ionic silver" that serves as the basis for a broad range of germ-killing products. Pure Bioscience also says SDC is the first new antimicrobial disinfectant the U.S. Environmental Protection Agency has registered in more than 30 years.

Pure Bioscience says SDC is a fast-acting, non-toxic, "green" alternative to chlorine, formaldehyde and other commercial disinfectants that have drawn some environmentalists' ire. It can be used as the active ingredient in home and personal care products, cosmetics, deodorants, cleanwipes, drinking-water systems, acne products, wound care products, and even agricultural products because it kills a broad spectrum of bacteria, viruses and fungi. Krall says highly publicized outbreaks of bird flu and other health threats, including MRSA, Staph, and SARS, have helped to drive public interest in the company's flagship product.

Three months ago, [Pure announced a deal with Swiss chemical giant Ciba](#), which markets Pure's SDC in their personal products catalog under the tradename "Ciba Tinosan SDC." Krall now says there will be hundreds of products. "This is going to be really exciting," he says. "In five years we will be a very big company, unless someone acquires us."

The 56-year-old CEO says he founded the company as Innovative Medical Services in 1992 to provide services and products for the pharmacy market, including the Fillmaster, an easy-to-use tool for pharmacists who mix antibiotics. The company sold approximately 20,000 Fillmasters, but Krall says, "We couldn't create more business around it, so we started looking for other technologies." The company began to concentrate on the antimicrobial field in 1999, and changed its name to Pure Bioscience in 2003. It now has five U.S. patents.

Before starting the company, Krall was the president and CEO of a San Diego area residential and commercial property development company. He also worked as a general manager in the hospitality industry. He says Pure Biosciences was funded in the early years by individual investors through a few small rounds, which were required only on special occasions. The company went public in 1996, raising about \$4 million in its IPO.

In the fiscal year that ended July 31, Pure Bioscience lost about \$6.5 million on almost \$1.5 million in annual revenue. “Creating anti-microbials is expensive and it takes time,” Krall says. “A new product has to be perfect. We have been almost a pre-revenue company, but this is turning now.”

The business model for Pure Biosciences has developed three sources of revenue: licensing SDC to pharmaceutical companies for development of new therapeutic products, such as a treatment for athlete’s foot; partnerships with companies like Ciba to market Pure’s SDC to others and to sell products under its own labels; and sales of its own brand of cleaners and other SDC-based products.

“But we can’t do it all,” Krall says. “That’s why we’ve spent years looking for partners, because we want to stay small and efficient.”

Before I left, Krall asked me if I remembered the Greek patriarch from “My Big Fat Greek Wedding,” Hollywood’s 2002 surprise hit. In the movie, the father comically sprays everyone with Windex cleaner. Krall says he should have used SDC instead.

To demonstrate, Krall sprayed some SDC-based cleaner into his own mouth, explaining the silver-based germ killer is not toxic—unlike chlorine-based cleaners. “I do this all the time,” he told me. Krall says he even used the SDC cleaner to regularly spray the wounds in his gums after he had root canal surgery.