

Eyeing \$14B epilepsy market, biopharma firm moves to Philly suburb

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The Philadelphia area has given birth to more than 100 biotechnology and specialty pharmaceutical companies with help from the region's healthy supply of research institutions, academic medical centers and drug manufacturers. Lately, the region has started to see an uptick in biopharmaceutical companies



Marinus CEO Christopher Cashman, left, with Edward Smith, the Radnor biopharmaceutical company's chief financial officer.

relocating to the region to take advantage of its talent pool complete with scientific researchers, business executives and entrepreneurs with experience developing new drug candidates.

Take the story of Marinus Pharmaceuticals, a biopharmaceutical company developing new treatments for epilepsy and other neuropsychiatric disorders. It recently relocated to Radnor, Pa., from Connecticut.

The market for epilepsy treatments is estimated at more than \$14 billion. Marinus is initially targeting a \$4 billion subset of that market: patients with seizures who don't respond or are no longer responding to other medications in the market.

The company's lead product candidate is ganaxolone, a synthetic version of a neurosteroid produced in a person's central nervous system to modulate gamma-aminobutyric acid, or more simply GABA. GABA is a neurotransmitter that, when not functioning properly, is linked to a variety of central nervous system diseases — including epilepsy.

[Christopher Cashman](#), the chairman and CEO of Marinus (NASDAQ:MRNS), said ganaxolone delivers its therapeutic benefit through a natural mechanism. That, he said, gives the experimental therapy potential safety and efficacy advantages over other anti-epileptic medications now in the market.

"There are no other drugs that have this mechanism of action," Cashman said. "This is first in class."

The company is conducting late-stage clinical trials of ganaxolone in patients suffering from drug-resistant seizures. It is also conducting mid-stage testing of the molecule in patients suffering from Fragile X Syndrome, a genetic condition that causes a range of developmental disorders, and in pediatric patients with PCDH19 female epilepsy.

Results from all three clinical studies are expected this year.

So how did Marinus end up in the Philadelphia suburbs?

Marinus was founded in New Haven, Conn. in 2003 and received its first major financing (\$29.4 million) in 2005. The company spent its next

half-decade developing its product pipeline, raising another \$20 million in 2009.

In 2011, Cashman joined the company as executive chairman. He previously served as co-founder, president and CEO of Protez Pharmaceuticals, Inc., a Malvern, Pa., biotech company [specializing in antibiotics that was acquired](#) by Novartis in 2008. Before that, Cashman was president and CEO of Message Pharmaceuticals Inc., a small biopharmaceutical firm also based in Malvern. He also spent time at SmithKline Beecham and Pfizer

"I was brought in to solidify the company's development plan and raise additional capital," Cashman said.

In late 2012, the company raised another \$21 million in a series C round, which was followed by a \$46 million initial public stock offering last year.

Prior to the IPO, the company was operating largely in a virtual mode with just four employees.

"When we did the presentations for the IPO, 75 percent of the staff was on the road show," said Edward Smith, the company's chief financial officer.

Cashman commuted to New Haven from the Philadelphia suburbs as needed. "I never left my home here," Cashman said, "I was a very good Amtrak customer."

Following the completion of the IPO, Marinus's plan was to use some of the proceeds to expand its management team.

"I thought moving the company and building the team here made sense," Cashman said. "There's more than adequate talent here, and

I'm a believer that a company is only as good as the people you have in it. I thought I may get some pushback [from investors about moving the company], but there was none. They realize what this community has going for it."

Cashman noted two of Marinus' biggest investors, Sofinnova and Domain Associates, have other Philadelphia-area companies in their portfolios.

Soffinova of Menlo Park, Calif., is an investor in Aclaris Pharmaceuticals in Malvern and Spark Therapeutics of Philadelphia. Domain Associates of Princeton is an investor in RightCare Solutions of Horsham, Pa., and Celator Pharmaceuticals of Princeton.

Following its IPO last summer and the move of the company to Radnor late last year, Marinus has grown to 10 employees.

Its most recent hire was Dr. Albena Patroneva, who last month joined the company as its chief medical officer. Patroneva's background is with Big Pharma companies, including AstraZeneca and Wyeth in this region, where she was involved in research, drug development, clinical, regulatory and commercialization activities.

Smith said the company has about \$50 million cash on hand, which will get it through its clinical trials now in progress and into the second half of 2016.



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