

August 01, 2015

Northwestern's \$560 million man

By JOHN PLETZ | [Twitter](#) [Google+](#)

💬 ✉ 🖨

SHARE | [Baxter International Inc.](#) | [Chicago Institute of Neurosurgery and Neuroresearch](#) | [Northwestern University](#) | [More +](#)



Photo by KENDALL KARIMANIAN

READ NEXT ▶

▶

Joe Moskal's aha moment—the one that led to him selling a pair of depression drugs to a giant pharma company for \$560 million—started with the blink of a rabbit's eye.

Moskal had discovered an antibody that effectively controlled the pathways used to transmit signals in the brain, making them more efficient. To test his theory, Moskal turned to something called the trace eye-blink test. It involves an audible signal followed by directing a puff of air at the eye of a human or animal. Both quickly learn to close their eyes when they hear the noise. Researchers like the test because it's a good proxy for understanding learning and memory—and it works in both animals and people.

When the antibody was injected into the rabbits, they learned much more quickly to blink to avoid the air puff than those that hadn't been injected.

That was 25 years ago.

It took three companies, four CEOs and nearly \$200 million in funding to turn his idea into a drug called GLYX-13.

"Time equals money," Moskal says. "Since I didn't have any money, it took a lot of time."

The drug and a sibling are being sold by Naurex, his Evanston startup, to Dublin-based pharmaceutical giant Allergan in a deal announced July 26. GLYX-13 still faces lengthy human trials before it can be considered for U.S. Food and Drug Administration approval to treat depression.

Moskal, a 65-year-old neurobiologist at Northwestern University, has spent his adult life trying to figure out how to improve memory and learning, and the past quarter-century trying to move from theory to a drug that patients can use. Few people get this far.

"It shows what smarts and perseverance can do. We need to have a lot more Joe Moskals," says John Flavin, a veteran of two Chicago-area drug startups who is director of the Chicago Innovation Exchange, an incubator at the University of Chicago.

Crain's Daily Alert

Get a roundup of important business news that happens each day.

SKITTISH INVESTORS

An early Moskal company, Nyxis Neurotherapies, launched in 1999, raised \$2 million and got GLYX-13 to FDA approval for preliminary trials. But investors were skittish. So Moskal went back to his lab. Naurex wouldn't emerge for nearly a decade.

Moskal came to town in 1990 to build a research program affiliated with Chicago Institute of Neurosurgery and Neuroresearch at Columbus Hospital in Lincoln Park and to teach at Northwestern.

After Columbus Hospital shut down in 2001, Northwestern provided him space in a nondescript building on the edge of campus. His lab, the Falk Center for Molecular Therapeutics, shares an address with Northwestern's Traffic Safety School. Neighbors include a Chili's and a movie theater.

"It's a great place to be," he says of the 12-person lab. "I got to build what I wanted to build. I knew this was going to be a life's work. I wanted to go for the long ball."

Northwestern supported Moskal but didn't write him a blank check. It's called the Falk Center because Moskal persuaded Falk Medical Research Trust, a nonprofit set up by the co-founder of Deerfield-based medical products giant Baxter International, to give him \$7 million over about 10 years.

Moskal's ability to attract people and money to his cause is as much a part of Naurex's success

as his scientific skills. He learned that at the Albert Einstein College of Medicine at Yeshiva University in the Bronx, where he taught and set up its neurosurgery labs in the mid-'80s. "We had to hustle for money," he says.

Moskal grew up in Saginaw, Mich., and in 1968 went to the University of Notre Dame, where he studied chemistry and psychology. He developed an interest in learning and memory, and decided to stay and pursue a Ph.D. in chemistry. After failing his first exam (along with half his class), he recalls an adviser telling him, "What are you going to do with your life? I don't think you've got it."

He persevered and earned his degree in 1977, followed by a research job at the National Institutes of Health, where he worked in the labs of two Nobel Prize winners. From there, he went to Albert Einstein.

Moskal has a bit of the absent-minded professor look about him. His gray hair is slightly tousled,

colleagues describe as a genius. "He's the best scientific founder of a company I've ever met," says Derek Small, the first CEO of Naurex in 2007.

Moskal also has an irrepressible enthusiasm for science and discovery. The combination has helped him enlist top researchers, key advisers and investors such as David Leander, a former chief scientist at Indianapolis-based Eli Lilly, which created antidepressant Prozac; Bill Gantz, a former Baxter executive and venture capitalist; and Norbert Riedel, chief scientist at Baxter who oversaw its investment in Naurex and later became the company's CEO. The array of local backers included private-equity funds Longboat Ventures and Adams Street Partners and companies such as Baxter, Takeda Pharmaceutical and Lundbeck.

'I WANT TO WORK'

The sale of Naurex will change Moskal's life, too, though he won't say how much he'll earn from it. "I have enough money to pay the mortgage and not have to work," he says. "But I want to work."

Allergan bought the drugs Naurex was working on. But Moskal, Riedel and 50 employees are launching a company, Aptinyx, which will develop drugs for neuropathic pain, post-traumatic stress disorder, traumatic brain injuries and migraines. Long term, Moskal says he'd like to have an endowed research institute at Northwestern for neuroscience research. "That would be more fun to me than just have a lot of money."

He'll have to raise money to do it. But Joe Moskal shouldn't have any trouble with that.

0 Comments Crain's Chicago Business

Login

Recommend Share

Sort by Best

Start the discussion...


Be the first to comment.

ALSO ON CRAIN'S CHICAGO BUSINESS

WHAT'S THIS?


Opinion Here's how female candidates for local office should be evaluated

2 comments • 9 hours ago

 sundevilpeg31 — "Just a few years ago, the very idea that the main candidates for important Illinois and Chicago (or anywhere, for that matter) political posts would be women was ...


Sales launch at Old Town condo project

3 comments • 12 hours ago

 Tone — Thanks. So where that crappy single story restaurant is?


This suburb has too many \$1 million-plus homes for sale

8 comments • 12 hours ago

 merlin — If you work in the city, you are traveling in the teeth of the worst traffic. It's an hour slog, interrupted by constittutions. Unless you live in that walk able downtown, you have to drive ...

Chicago Architecture Biennial inspires Perkins + Will design contest - Real Estate News

2 comments • a day ago

 merlin — I love the concept of unbuilt and unbuildable designs. These projects would cost billions. Just the idea that a couple acres of wetland could cleanup the Chicago river is hilarious. ...

Subscribe Add Disqus to your site Privacy

DISQUS

CRAIN'S
CHICAGO BUSINESS

Twitter Facebook LinkedIn RSS

Company

Connect

Advertise