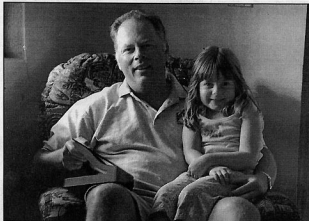


Life in The Valley



Barry Wise came home to Manson in 1995 to cofound Eigenvector Research Incorporated with his partner Neal Gallagher. Wise takes a moment to relax in his home office with daughter Mattie.

They've got chemistry

Local business reaches across the globe, wins international award in chemometrics

by Celeste Thomas

If you're looking for Chemistry 101, you won't find a wrong turn. In this home office overlooking Lake Charlan, high-tech scientific and mathematical sciences borrow off the walls like Ping-Pong balls. Chemometrics. Ping. Bioinformatics. Pong. Eigenvector.

And what in the world is an Eigenvector? According to Webster's Dictionary, it's a "vector whose direction is mapped by a given linear transformation of a vector space onto a vector that is the product of a scalar multiplied by the original vector." Try saying that three times fast, and you may need an EMT with extra oxygen.

Luckily, the world has an easier definition in Manson. It's a business name. Plain and simple. Eigenvector Research Incorporated. Eigenvector cofounders Barry Wise and Neal Gallagher consult with and march data for big-name companies like Dupont, Exxon and Texas Instruments. They developed and sell specialized computer software and teach their skills across the globe.

"What we do is exciting to us but baffling to a lot of people," says Wise, who grew up in Manson and came back home in 1995 with four degrees in chemistry and chemical engineering. "It's a very narrow field a mile deep."

In the past six years, Wise and Gallagher planted their company's roots in the valley, following the path of Wise's grandparents who homesteaded Union Valley. One of Wise's grandfathers owned the logging mill where Old Mill Park now stands. Another walked the wooden flumes that used to carry water from Antlion Lake to the valley orchards.

Now Wise and Gallagher travel the information highway with a business reaching around the world. Their company has associates in several foreign countries, including Norway, Denmark, The Netherlands and Spain, and Wise recently won an international award for his achievements in chemometrics.

Chemometrics is the application of statistical and mathematical methods for dealing with chemical data. Companies around the world run

chemical tests on their projects. They measure things like temperature, gas flow rates, light and pressure, sending the results to Eigenvector Research via computer. Wise, Gallagher and another employee in Michigan look at the measurements, analyze them and determine the story they tell.

"This is where chemistry, mathematics and statistics all come together," says Wise. "We turn numbers into accurate businessware."

Eigenvector Research works with a variety of companies. They've consulted on projects including a glucose sensor for diabetics, amino acid sequence data for improved food clones and an electronic nose device.

The electronic nose detects hazardous chemicals in an open environment. Pulling samples from the air, the nose passes them through its sensors and determines which hazards are present. Wise and Gallagher helped analyze chemical data during the device's development.

Eigenvector Research's software product, PLS Toolbox, has over 3,000 users in over 35 countries.



Neal Gallagher and Barry Wise with dog Jenny

Working with a program called Matlab, the software is widely recognized for its use of cutting edge chemical data analysis methods. Workers in finance, geology, chemistry, pharmaceuticals, petrochemicals and consumer products use Eigenvector Research's software.

"We use your functions a lot," wrote an employee from Dupont in an e-mail to Wise. "How I'll marvel on lazy afternoons, about how it all works."

Wise and Gallagher also offer hands-on training in chemometrics and related software, teaching courses to international chemists and chemical engineers in the U.S. and abroad. This year, Eigenvector Research will hold courses in Chetumal, Detroit, Banff, Canada, and Copenhagen, Denmark.

The Wise and Gallagher dream team first met at 8:20 a.m. October 1, 1985. It was the first day of a graduate math class at the University of Washington.

Wise came in the room and offered something about taking turns buying donuts each morning, remember-

bers Gallagher, as he sips coffee from a mug with a Far Side cartoon on its side. "I didn't know what to think of him."

But the two men bonded over equations and calculations, ball games and a trip to Stokholm. In the summer of 1987, they took a 44-day road trip across the country, covering 7,000 miles on the ground and twice that in the air.

"That's when we knew we could work well together," says Wise. "And having our own business was in our blood."

Both men had entrepreneurs for fathers, he adds. Wise's dad was an orchardist and Gallagher's ran a plumbing company and helped found a bank.

After both men earned their Ph.D.'s, they worked a short time for a company named Battelle. Then they moved to central Washington and started Eigenvector Research. Their first contract was a consultation project with Texas Instruments, helping them refine their computer chip production.

Six years later, both men work from offices in their Manson homes.

A golden lab and a gray-striped cat wander in and out of Wise's office. Pictures of his kids sit on the windowsill, and dinosaur stickers decorate his computer.

There are both challenges and benefits to working from home, he says. "One of the challenges is that my four-year-old steals my tape and scissors. The good thing is I get more sleep."

Working from Manson is a mixed bag too. "We're doing something we enjoy doing in a place we like to live," says Wise.

But the rural setting has its drawbacks. When the men wanted to rent computers for this week's conference, no one in the region had machines powerful enough. They had to have the necessary computers shipped from Seattle. Air travel from the area is undesirable too, adds Wise.

And communications are a challenge. "When we set up our business there just wasn't any kind of a road map as to how to do it," he says. "The phone company didn't have much experience with this."

Eigenvector Research moves huge amounts of data between their Manson home offices and the rest of the world. When they installed their first computer server four years ago, they moved about one megabyte of information a day. Now it averages over 20, with some days escalating over 100 megabytes.

Wise and Gallagher keep their fingers crossed that the new FUD RITE optic play will improve communications, and they'd like to see more high-tech businesses move to the valley.

There are very few people who see anything other than tourism as an alternative to agriculture," says Wise. "The farming, the growing, the present vision only as a tourist town."

He worries about quality of life issues and wonders if enough attention is being paid to local needs. "Things like a community swimming pool would be great," he says. "We all want a nice place to live, and living in a community isn't just patting the chest."

As communications and travel improve, Wise and Gallagher would like to see the valley prospered as a high-tech Mecca. They also see Eigenvector Research expanding. They'll introduce their second software application this summer and hope to have a dozen people working for them within five years.

Sometimes it takes us to talk, and I think we sound like pencil-codded geeks," laughs Wise from his home office, "but we have a great job. We like what we do, and we've got a constant stream of new and interesting things."

Find out more about Eigenvector Research at www.eigenvector.com.