A 2008 cancer conference in San Diego, California, Dr. Andre Bachmann had an epiphany about his research into a drug he believed could significantly improve the treatment of some children with a type of cancer called neuroblastoma when the father of a boy fighting the disease approached.

Would Bachmann be interested in meeting a physician scientist whose research he hoped would help patients such as his son, the father asked. With a Ph.D. in biology, Bachmann for years had hoped to bridge the gap that often separates basic scientists from the doctors who treat patients.

“It really was a significant moment in my career,” he recalled. “I was a scientist researching neuroblastoma, and here was the parent of a child with the disease standing in front of me. Working in the lab is great, but I really want to make a difference. I want to bring the drugs from the lab to the clinic.”

The physician he met that day, Dr. Giselle Sholler, a pediatric oncologist, offered that opportunity.

For years, her research had focused on designing Phase I and Phase II clinical trials to find better drugs for treating her patients. With a master’s degree in research and years of experience running her own lab, Sholler immediately saw the potential benefit of Bachmann’s work for neuroblastoma patients.

“Dr. Bachmann and I have the same way of thinking about research,” she said. “The first question that comes up is what do we need to do for the patients?”

Six years after their first meeting, Bachmann and Sholler are joining forces in Grand Rapids, thanks to the Spectrum Health-Michigan State University Alliance.

In 2011, Sholler moved from the University of Vermont to Grand Rapids, where she is an associate professor of pediatrics for the Michigan State University College of Human Medicine and the Haworth director of the Innovative Therapeutics Clinic and director of Pediatric Oncology Research at Spectrum Health Helen DeVos Children’s Hospital.

Bachmann is leaving the University of Hawaii in January and joining the College of Human Medicine in Grand Rapids, where he will be a professor of pediatrics and associate chair for research.

Through their collaboration, the drug Bachmann described to Sholler six years ago already has entered Phase II of a clinical trial and is showing great promise in fighting the deadly childhood cancer.

Every year, about 700 children in the United States, most of them age 5 or younger, are diagnosed with the highly aggressive tumor, which forms on the nerve cells in several areas of the body. It accounts for about 15 percent of all childhood cancer deaths.

For the last 12 years, Bachmann has been studying a drug called DFM0, originally developed to treat African sleeping sickness, as a potential weapon against neuroblastoma. DFM0 targets a protein called ornithine decarboxylase that, when elevated in the body, promotes the growth of neuroblastoma cells.

Since DFM0 had very few side effects, “there really was nothing to lose,” Bachmann said.

In 2010, less than two years after their first meeting, Sholler opened a Phase I clinical trial of DFM0 approved by the Food and Drug Administration. After the drug passed that level, she opened a larger Phase II clinical trial in 2012.

A key to fighting neuroblastoma is in keeping it from returning after it goes into remission, Sholler and Bachmann believe, because the survival rate is less than 10 percent for children with recurring disease.

“Shaffer and I are now ahead of the curve in the current clinical trial, DFM0 is administered to patients whose cancer has gone into remission,” Sholler said.

With DFM0 still in a clinical trial, Sholler and Bachmann must avoid expressing too much enthusiasm, but “the results are encouraging,” she added.

The original 15 hospitals participating in the clinical trial led by Helen DeVos Children’s Hospital has grown to 22 all over the country. Hospitals in England, Ireland and other countries have expressed interest in joining the trial or starting their own.

Sholler and Bachmann have applied for a grant from the National Institutes of Health to carry forward their research, which so far has been funded by parents of children with neuroblastoma. In the spring, they hope to start another clinical trial administering DFM0 in combination with another drug.

With their labs located by a street, rather than 4,000 miles apart, Sholler and Bachmann expect their teamwork will continue to grow.

“It’s just a great, great collaboration,” Sholler said. “Everyone is thrilled to work with Dr. Bachmann. I think it’s great for the whole Grand Rapids community. To be a true academic medical center, we need that kind of collaboration.”

Beyond the potential benefit for neuroblastoma patients and their families, the collaboration of Sholler and Bachmann and the alliance between MSU and Spectrum Health are models for other medical research, said Dr. B. Keith English, MD, chair of pediatrics at the College of Human Medicine and academic chair for the Department of Pediatrics at Helen DeVos Children’s Hospital.

“This partnership is a beautiful example of why we should invest in basic science and why we should have this kind of collaboration,” he said. “We’re all about partnerships, all about finding better ways.”

For Bachmann, the chance to see his research help patients in the realization of a dream. “This is not just a research project for me,” he said. “It is a mission.”