

# Spark of invention burns bright

by Brian Sattler

It is an entrepreneurial epicenter—a world-class business with far reaching implications—found in unpretentious buildings that belie the cutting-edge research and state-of-the-art manufacturing within.

That business is Helena Laboratories Corp., whose research and product development has led to more than 200 patents, touched the lives of millions, and sparked break-through discoveries that have shaped modern medicine.

Helena Labs was founded by Tipton '62 and Ann Golias and is the premier manufacturer of automated gel electrophoresis systems for serum proteins, immunofixation, cholesterol and hemoglobin analysis and more. Helena products have helped test a half-billion people for blood disorders.

Tipton Golias grew up in Galveston, and the family moved to Beaumont in 1956 where he began attending French High School. He graduated in 1959, and thanks to the generosity of well-known Beaumont entrepreneurs and philanthropists, the Rogers family, he began attending Lamar on a chemistry scholarship. "I will always appreciate what the Rogers brothers did for me and for Beaumont," Golias said.

Golias enrolled in Lamar's pre-med program as a biology major. He'd married his high school sweetheart and with a growing family was eager to get through college quickly. He attended Lamar full time, worked as a lab technician afternoons and evenings at Hotel Dieu, a 175-bed hospital that was the precursor of Beaumont's Christus St. Elizabeth Hospital, and took night calls. "I basically didn't get any sleep," Golias said.



He graduated in three years, but his responsibilities at home proved a stumbling block when he applied for medical school. Despite having the second highest score among the applicants, "They were concerned about my ability to finance my way through medical school with a family. They weren't ready to take me under those conditions and wouldn't let me attend and work at the same time. So I decided to go to work for a year or two and reapply. I never did."

The family moved to Michigan where Tipton joined Aloe Scientific. He later worked for other companies in laboratory products

before starting his own company in the basement of his Detroit suburb home in 1966.

"I don't know how I had the entrepreneurial spirit, but I did," he said. "The company I worked for turned down my ideas. They had other interests that they thought were better for them, and they probably were."

He named his company Helena Laboratories after his wife, Helen Ann. Not ready to relinquish the security a steady job seemed to provide, it took three discussions before she gave her blessing to Tipton's desire to start the company. "The first answer was 'No', then 'Maybe' and finally, 'Okay, just don't let the

kids starve," Golias said.

His first product was a hemoglobin electrophoresis buffer. Electrophoresis is the movement of dispersed particles in a fluid under the influence of a spatially uniform electric field.

"I introduced this product because it did not exist," Golias said. "I packaged the chemicals ready to mix, making it very easy for a lab to have the very best. It was consistent, easy to use and the best anywhere."

Three years later, with five employees, he discovered that he needed a very controlled environment to manufacture the cellulose acetate membrane needed for electrophoresis and that he would need to build his own building to make that possible. Realizing the significant investment it meant, he intended to build it only once in his lifetime; the location would be permanent.

"In the '60s, California seemed to be the place that you ought to be," Golias said. "Ann went along with the plan of California right up to the day before I would be taking a plane out to Los Angeles to look for a specific spot. But then, she just causally said would I mind moving to Texas instead."

Her question, compelled by a desire to live near family, prompted a ticket change. After meeting with a Houston architect, Golias drove to Beaumont to visit with Ann's parents for the evening. He shared the rough plans with his father-in-law, Oway Mayes, who said he could build for half the cost in Beaumont. Golias took him up on the challenge and, after finding two lots off Lindbergh on Beaumont's west side, construction began in late 1969. The building was ready in May 1970. Several rental truck trips later, Golias had moved the plant, and production in well-controlled conditions was underway.

When Helena Labs came to Texas it had about 50 products in its catalog. Today, the catalog offers more than 1,000 items. The two lots on Lindbergh have grown to 13 where the

company administration and marketing is housed along with research, production and order fulfillment. Another facility on Washington Boulevard houses equipment manufacturing, electronic development and more research.

More than half of the company's \$100 million annual business is international, Golias said. Helena has been awarded the U.S. Secretary of Commerce "E" Award for excellence in contribution to the American economy through export operations. Helena has plants in England, Holland, Japan and Australia. The company facilities in England and Japan nearly replicate the Beaumont plant. Helena's plant in Holland produces machines and supplies for capillary electrophoresis, while its presence in Australia is focused on sales and service. The company is also beginning to supply the Chinese market.

Several product areas drive the company. Foremost is electrophoresis. Helena makes electrophoresis products "that identify any disease state where you could see the process in a blood protein such as infectious diseases, liver diseases and some genetic diseases," Golias said. "Many of these generate blood proteins that we can see that help us to diagnose or monitor the disease."

The number one product in the electrophoresis area is immunofixation that helps diagnose many types of cancers, primarily those related to bone cancer. The process helps physicians diagnose and identify the biological process, which types of cells are malignant, and that determines the treatment.

Another important product is hemoglobin electrophoresis. Hemoglobin S, the type present in sickle cell disease, and Hemoglobin C, a type that does not carry oxygen well, are the most common types of abnormal hemoglobin that may be found by an electrophoretic test. "I developed the products that made sickle cell screening happen," Golias said. "Before I got involved there wasn't sickle cell screening. Those

products started my company, and its still a major area today. My products and methods made sickle cell screening a reality."

Golias is excited about the company's work in lipoproteins, a promising area for accurately diagnosing the risks of heart disease or stroke by targeting specific lipoprotein cholesterol beyond the commonly known HDL and LDL. "We have methods that allow laboratories to identify and assay various lipoprotein fractions," Golias said. "We're a leader in developing Lp(a) technology. It has taken the last 10 years or more for the medical community to recognize Lp(a) as a major risk factor but they are seeing it now. We are one of the leading companies in developing assays and monitors for Lp(a)."

In 2011, he was presented the coveted Lipid Award for specific improvements for lipoprotein electrophoresis methods. He also received the National Van Slyke Award in 2010, the highest award available in the field of clinical chemistry and laboratory medicine. An avid runner, Golias has also competed in more than 15 marathons and is a champion bridge player, competing with other champion card players via the Internet.

Golias cites two major reasons for Helena's success—innovation and efficiency. And, he adds, "We treat our customers like we would like to be treated ourselves." No stranger to innovation (his name is on 40 of the company's more than 200 patents), he also recognizes that great ideas "for a product can come from an employee, a research scientist or a customer."

"Our formula is really simple," Golias said. "We believe in working hard. We are quick to develop and get a product to market. And, we back up our customers in the field."

"We have a lot of good people," he said. He is quick to credit Lamar with a role in their excellence. Of around 450 employees in Beaumont, Helena Lab has 52 LU graduates and many others who have taken courses, are currently enrolled, or have spouses or children at Lamar.

The company is also close to releasing a revolutionary hand-held device that can test a drop of blood for 10 different hemostasis assays. The device is steadily moving through the FDA approval process and the promise is very bright.

What does Golias expect for Helena Lab in the next decade?

"We expect to see 50 percent growth or more," Golias said. "There are very significant things ahead."

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