A team of doctors and researchers right here in Lafayette are researching causes and cures of cancer and infectious diseases that plague Acadiana.

Fighting Cajun Cancer

The electricity is off. Angry drivers sit at darkened stoplights, soap opera mavens curse at blank screens, and office workers stare in terror at stilled air conditioning vents.

At University Medical Center, Dr. Gene Beyt is on the phone. He's trying to get through to the lab of the Acadiana Medical Research Foundation on the fifth floor of USL's Wharton Hall. Nothing comes over his phone but honks and squawks; without electricity the campus phone system can't forward his call to the lab.

A few moments later, one of the research associates from the lab—who can dial out—reaches Beyt at his desk. "Are you still without power?" he asks. The power is back on.

"Well," he asks then, "did you lose the experiment?"

His face lightens. Back at the lab, they've said that the afternoon's work won't have been lost to the power outage.

Later, at the lab itself, Beyt points out some emergency features on a few pieces of lab equipment that would save lab materials in the case of an extended outage, and reports that a local radio station has proposed scouting resources. USL science Dean David Andrew and Microbiology head Dr. Joe Sobek came up with the corner lab room on the top floor of Wharton Hall. Odd pieces of lab equipment and even desks and file cabinets were borrowed from UMC, USL, or LSU. For LSU, Rainey and Beyt's research activity would fall into one of the medical school's important areas of concern—research.

Soon, Roy, Rainey, and Beyt were at work in the lab—painting it. Six different paint stores had donated paint for the lab, and Roy, now president of AMRF, and its co-directors of research worked with a group of volunteers slapping paint on the walls.

"Almost all of what we're using in our research effort was already here," Beyt says. "John and I are with UMC's LSU unit, the USL microbiology department has both facilities and excellent, well-trained personnel, and our test subjects are drawn through cooperation with local doctors and commercial test labs.

What AMRF has done is to draw these resources together and focused them for research, and provided the project expertise and personnel for the research. A trio of research associates, Susan Kilgore, Missy Woods, and Denise Klimas-Sherrill, are employed by AMRF to work on the Foundation's projects in the lab (Rainey and Beyt, full-time LSU medical faculty, receive no salaries from the Foundation).

In its two areas of concern, cancer research and infectious disease
ACADIANA research, AMRF, does basic and applied research; it also offers specialized clinical techniques for diagnosis and treatment as well as undertaking educational efforts. It offers some techniques that might otherwise be available locally because they are not cost-effective to hospital or lab administrators keeping their eyes on their responsibilities to the bottom line.

For instance, AMRF conducts patient applicable tumor stem cell assay. The cancer cells of a patient are isolated and then grown in a culture in several isolated containers in the lab. Different chemotherapies that might be thought to be effective against that patient's cancer are tried on the samples. Whichever brings a response or brings the greatest response will then be likeliest as chemotherapy for the patient, who risks only the side effects of a drug indicating possible effectiveness for his own particular cancer.

Ultimately, Beyt says, labs like AMRF may be cloning cancer-killing "T-cells" that destroy tumors. "Cancer research embraces a wide range of approaches," he says. "Each unique problem has a unique way to be dealt with." Research into how antibodies are formed, for instance, could be useful in both detection of cancer at an early stage—as soon as the recognized antibody appears—and in mass-producing the antibody for treatment.

AMRF wants to examine Acadiana's high cancer rates with a major epidemiology study that will go beyond what such studies have done here in the past.

"Cancer patients are currently being studied from a retrospective standpoint," reads an introduction to a study project the Foundation proposes. AMRF wants to study a group in a prospective fashion; that is, look at a large group for a long period, and by seeing which ones get cancer and which don't, learn something about cancer causes. A thousand subjects are proposed to begin with, but, "this study hopefully can be expanded to include the entire Acadiana population over the next several years if necessary funding is forthcoming."

In the area of infectious disease, Beyt has a $33,720 grant from the Louisiana State Board of Regents to study diarrheal diseases in southwest Louisiana. Lab samples from victims are analyzed for the presence of virus, and correlations of the disease with various pathogens may establish some casual links.

The current fiscal budget for the Foundation is approximately $112,000.
That financial picture has been one reason the Foundation has had such immediate success in fundraising. Since the basic facilities are provided by cooperation among USL, LSU, and UMC, each dollar that flows to the Foundation has a high profile effect on the research.

"Someone who donates money to AMRF," Roy says, "sees that every penny goes for research, just for research, and that the money is being spent locally for problems that are very local." Some civic groups have given specific pieces of equipment; one donor even agreed to pay for a fundraising Jazz Brunch this spring.

"Federal and state grant money are drying up," Beyt says, "Research centers like ours are dependent on community support, and like what they see because their dollars are so efficiently focused on research."

Beyt projects that the budget of AMRF will come to about $400,000 annually with projects currently foreseen. Future fundraising efforts will seek both operating funds and an endowment that would ultimately support the Foundation.

"We have a 'truth in advertising' law," Beyt says, "which means if money is needed to repaint the laboratory we ask for money—or paint—to repaint the laboratory. By the same token, anyone giving money to research knows that is where it goes."

"John and I saw an ad once for shelves for $8 at Sears," he says. "We went that day and bought them, saving possibly hundreds of dollars compared to what a bid process might have dictated."

By doing everything from scouting the sales at Sears to working cooperative agreements with local institutions to displaying careful focus on Acadiana's unique cancer and disease problems the Acadiana Medical Research Foundation has made cancer research a valuable reality in our community.

"A community-supported foundation is the way to go," Beyt says. "We have everything here we need to do the research, and we've got our own problems that deserve and warrant the attention."

And, he adds with a grin, "John and I are research oriented, and we like it here."

—JAMES EDMUNDS