Neuroscience center seen as a boost to medicine and to economy

BY ANDREW BOWSER

Biotechnology research and development may not command headlines and captivate public attention the way casino gambling does, but some analysts are betting on local medical technology centers, like LSU Medical Center's Neuroscience Center for Excellence (NCE), to help boost the city's economic future.

"You hear a lot of hoopla about the casino," says Dr. Tim Ryan, dean of the College of Business Administration at the University of New Orleans and director of the school's Division of Business and Economic Research. "But (medical research and development) is the kind of industry we're going to have to develop ... we have to look at other opportunities to diversify our economy."

This sentiment is echoed by the NCE's director, Dr. Nicholas G. Bazan, who stresses that his combination research and treatment facility will be a boon to the local community as well as the worldwide community of neuroscience researchers.

His optimism is backed by a financial windfall — the center has raised five times more than what was projected just two years ago. The center has tallied more than $25 million in grants, endowments and other funds, including a $14 million federal research grant from the Department of Defense. The first DOD check, a $10 million installment earmarked for fiscal year 1993, arrived the last week of September; the second check is in the mail.

"(The defense department grant) will allow us to grow in a major way," says Bazan, who founded the center in 1988. "It will allow us to speed up everything we are doing. Whatever we thought we would be able to do in five years, we now will be able to do in the next two years."

The two DOD appropriation bills for the center were passed through Congress with the help of Sen. J. Bennett Johnston and Rep. Bob Livingston. "Ultimately, that money will have a multiplying effect," says Livingston. "We hope that it will place New Orleans on the map as a primary research center."

The NCE, an association of LSU neuroscientists and clinicians, promotes research and clinical treatment of neurological disorders and mental illnesses like schizophrenia, stroke, depression and Parkinson's disease. The center coordinates the efforts of 150 LSU clinicians, researchers and scientists.

With DOD money in hand, the NCE now plans a $5.7 million expansion, adding two floors to the Louisiana Lions/LSU Clinics building in the downtown medical center complex. Bazan anticipates construction will begin early next year.

The remainder of the money will be used to purchase new equipment and develop a comprehensive program for the treatment and research of Alzheimer's disease, which they anticipate will be the first of its kind in the state.

"Any hospital can set up an Alzheimer's..."
Dr. Nicholas G. Bazan says the LSU Medical Center’s neuroscience project will be unique in the state in that it will combine treatment with research.

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that the NCE could have a potential total annual economic impact of $99 million, generating $2.71 million in additional state and local tax revenue and more than 2,000 jobs through direct and indirect employment.

But this study anticipated that the NCE would be able to attract only $8 million in grants for neuroscience research and a matching amount in federal funds. "We were rather conservative in our estimate," says UNO’s Ryan, who conducted the study.

“We’ve already seen more in the center’s first real strong year of operation than we had expected to get once it was fully mature.”

Traditionally, medical schools and research programs have been separate. Patients will benefit from the NCE, says Bazan, because their physicians will have access to recent developments in neurological research.

The facility may benefit the community in other ways as well. A 1991 study concluded..."
Ryan predicts that the overall economic impact of the DOD grant alone will be $34.8 million, and will support more than 300 jobs, directly and indirectly, in the short run.

"The subsequent economic activity ... is the real potential of this kind of venture," says Ryan. "The dollars we look at in the short run are only the tip of the iceberg. There's the potential of other research, joint ventures and new business with pharmaceutical companies."

In addition to these long-term gains, which are not figured into the $34.8 million projection, New Orleans may experience additional economic activity and growth as pharmaceutical and biotechnology firms take notice of the center.

"There are now 42 companies around the country developing treatment of Alzheimer's and related dementias," Bazan says. "These companies are setting up branches of research and development activities around universities with research programs of this type. They want to be near academic institutions where research of high caliber is being done."

"Our research is an economic force in itself," he adds. "There are interactive forces between education, research, patient care and the needs of the community ... We serve the community by providing high-quality patient care and being a magnet for new industries."

Bazan, who has worked as a physician, professor and researcher at LSU since 1981, founded the NCE in 1988, a time when government and industry began to show increased interest in sponsoring neuroscience research. "There was a well-defined need in Louisiana for an organized approach to the treatment and care of patients with neurological diseases. There was an extraordinary opportunity to bridge the gap between scientists and clinicians and bring them together so they can work more effectively."

Bazan's research into the neurobiology of diseases is the driving force behind the NCE. For the first time, we are identifying the heart of these diseases by looking at the genes," he says. "The new drugs and molecules we have discovered open up opportunities to treat many of these diseases in new ways. This is a generation of new knowledge and research."

The NCE established a graduate neuroscience program in October to train medical students for work as teachers, researchers and clinicians in both academic and industrial settings. Currently, four students are enrolled in the program. The center plans to take on six more next year.

While the NCE will focus primarily on Alzheimer's disease for now, Bazan plans to expand research and treatment for other neurological disorders as the center grows. Toward that end, the center is looking to recruit faculty to head various programs. The center would like to take on clinician/scientists - physicians who see patients but have an active research program. Behind that person, NCE clinicians and scientists will be assembled in teams to concentrate on research of a specific disease.

"A lot of research is needed," says Bazan. "By understanding the mechanisms of these diseases (we) will be able to develop drugs targeted to those diseases. That in itself will attract more funding and money from outside Louisiana, and may attract industry."

While the bulk of the NCE's current expansion will occur next year, the center is in the process of raising funds for a brand new, $40 million facility in the downtown medical center area. The facility will serve as the permanent home for the NCE, which hopes to have the building in place within three to five years.