"Brain Attack" (Stroke) and Head Injury **Public Talks** 

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Depression



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# **Brain Awareness Week**

Focus on "Brain Attack" (Stroke) and Head Injury LSUMC Neuroscience Center of Excellence

> New Orleans, April 26, 1999 Baton Rouge, May 17, 1999

# Welcome to Brain Awareness Week

Izheimer's Disease, Parkinson's Disease, brain in jury, blindness, retinal degenerations, mental depression, alcohol and drug addiction, epilepsy and stroke, each one of us probably knows someone who has been affected by one of these diseases. Neuroscience is the field of medical research that will one day find ways to prevent or cure these and other neurological and psychiatric diseases. For the third consecutive year, the Society for Neuroscience and the Dana Alliance for Brain Initiatives have declared Brain Awareness Week March 16th-23th -to bring attention to the need for more in depth and far-reaching brain research to confront these diseases that limit, cripple and even kill their victims. During Brain Awareness Week, and throughout March, April and May, the LSU Medical Center's Neuroscience Center of Excellence will join forces with other research institutions across the nation to share information and publicize the many advances that have been made in the neurosciences. The week will also emphasize the challenges facing researchers.

As part of the LSUMC Neuroscience Center's commitment to community outreach and education, the Center is offering public talks in New Orleans and Baton Rouge about stroke, the fourth leading cause of death in Louisiana and the number one cause of disability. The program will also discuss Brain Injury. Speakers will include LSUMC Neuroscience Center experts in the field. In addition, the LSUMC Neuroscience Center faculty will help our state's youth gain a greater understanding of the function of the human brain by presenting programs to students in New Orleans and Ba-

This year, Brain Awareness Week comes at a time of unprecedented growth for the LSUMC Neuroscience Center. On March 17, 1998, the Neuroscience Center of Excellence opened its new state-of-the-art research laboratories. These new research laboratories provide us with tremendous opportunities to advance our work and to help combat these devastating diseases. Three new scientists have joined our world-class research team to develop additional research programs in the basic neurosciences. This growth offers hope for new, innovative treatments for a myriad of neurological and psychiatric conditions. Our community outreach and education also continues to grow. The Center's innovative Summer Undergraduate Neurosciences Program for Louisiana undergraduate students has been expanded to include area high school students and secondary science teachers. The creation of a new community advisory board is helping us expand our partnerships with schools, community organizations, foundations and corporations in an effort to enlarge our community service and involvement.

While we are proud of the progress we have made in the last decade in understanding how and why diseases of the brain develop and progress, there is still much to learn about our most complex organ, the human brain. Research provides hope. And our hope is that Brain Awareness Week will help you to understand how far we have come and how far we have yet to go.

Thank you for your support!

Nicolas G. Bazan, M.D., Ph.D. Villere and Boyd Professor

Director, LSUMC Neuroscience Center of Excellence

Mervin L. Trail, M.D.

Chancellor LSU Medical Center

# **Public Talks on**

# "Brain Attack" (Stroke) and Head Injury

Nicolas G. Bazan, M.D., Ph.D., Chairperson

#### Monday, April 26, 1999

from 11:00 A.M. to 1:00 P.M. at the LSU Neuroscience 8th Floor Conference Room 2020 Graiver Street New Orleans, Louisiana

Parking is available in the LSUMC lot on Tulane Avenue adjacent to the LSUMC garage.

Space is limited, please call 599-0909 to reserve seating

#### Monday, May 17, 1999

from 6:30 p.m. to 8:30 p.m. at the Lod Cook Alumni Center 3838 West Lakeshore Drive LSU Campus Baton Rouge, Louisiana

Parking is available behind the Alumni Center







# **Public Talks, Learn:**

- What "Stroke" or "Brain Attack" and head injuries are, can they be prevented, and the signs of "Stroke" and brain injury.
- Why there are certain functional disabilities following a "Stroke" or head injury.
- How diagnosis of "Stroke" or a head injury is made, what are the courses of treatment and current methods of rehabilitation.
- How research will lead to ways of preventing the devastating consequences of "Stroke" and head injury.
- The benefits of brain research and the promise it holds for future treatments.

#### What is a "Stroke"?

A "Stroke" or "Brain Attack" occurs when brain cells die because of inadequate blood flow. When blood flow fails, brain cells are robbed of vital supplies of oxygen and nutrients. About 80 percent of strokes are caused by the blockage of an artery in the neck or brain, and the rest by bleeding into or around the brain. Stroke ranks as the third leading killer in the United States. A stroke can be devastating to individuals and their families, robbing them of their independence. It is the most common cause of adult disability. Each year more than 500,000 Americans have a stroke, with about 150,000 dying from stroke-related causes. As the names "Stroke" and "Brain Attack" imply, it happens suddenly and may only last for a few moments. By treating underlying risk factors, many strokes could be prevented and by heeding the warning signs of stroke, disabilities could be minimized. Listed below are the risk factors and warning signs for "Stroke".

#### Most Treatable Risk Factors for a Stroke:

High blood pressure/Cigarette smoking/Heart disease/ Diabetes/Transient ischemic attacks

#### Warning Signs of a Stroke:

- Sudden weakness or numbness of the face, arm, or leg on one side of the body
- Sudden dimness or loss of vision, particularly one eye
- Sudden difficulty speaking or trouble understanding speech
- Sudden severe headache with no known cause
- Unexplained dizziness, unsteadiness, or sudden falls, especially with any other sign

Warning signs may last a few moments and then disappear. They are signs of a serious condition that won't go away without medical help. If you observe one of more of these signs of a "Stroke" or "Brain Attack," don't wait, call a doctor of 911 right away!

#### Head Trauma

Direct trauma to the head caused by vehicle crashes, falls, sports and recreation, and violence may result in may types of injuries, including a fractured skull, bleeding of the scalp or a bruise to the brain. Such bruises to the brain are called traumatic brain injury or TBI. These injuries can be mild to severe. Severe injuries can lead to death, but even mild TBIs can result in long-term effects such as changes in thinking and personality. Of the 7–10 million Americans that receive head injuries each year, nearly 400,000 are hospitalized as a result of TBIs at a cost of \$50 billion annually. In addition, 60,000 of these individuals die each year as a result of their injuries. While many of these injuries cannot be prevented, some could be by taking simple preventive measures. For example, seat belts are 57% effective in preventing fatal and traumatic brain injuries and simply wearing a helmet while bicycling reduces the incidence of head trauma by 85%. Studies show that if all bicyclists wore helmets, one injury could be prevented every four minutes and one death could be prevented every day.

# Signs and Symptoms of Head Trauma:

- Headache and dizziness/Bump on the head
- Nausea and vomiting/Fluid seeping from the ear and nose
- Sleepiness/Inappropriate behavior
- Unequal diameter of the pupils/Seizures
- Loss of control of body parts, paralysis

# What to do if Head Trauma is Suspected:

- Do not move the head, immobilize the neck.
- Control bleeding and be sure airway is clear.
- Do not give anything by mouth.
- Do not try to keep the person awake
- Get medical help.



As part of our commitment to community outreach and education, the LSU Medical Center's Neuroscience Center of Excellence is responding to the community's need for information about stroke and head injury. These symposia and other Brain Awareness Week events send powerful messages to thousands of people throughout Louisiana about the causes, prevention and current treatments of stroke. Armed with the latest medical information, our state's citizens will be better able to protect themselves and their loved ones from this silent killer."

> Mervin L. Trail, M.D. Chancellor, LSU Medical Center



Our community is asking us to find the answers to how and why stroke occurs as well as how to treat head injury-they are asking us to help them fight these debilitating and often deadly conditions. The LSU School of Medicine and the Neuroscience Center of Excellence are responding to this mandate. We have created the state's only interdisciplinary Neuroscience Center that fosters collaborative research efforts in a variety of disciplines in neurobiology and clinical neurosciences. With the recent opening of our new state-of-the-art laboratories, we will continue to be at the forefront of discovery in the neurosciences - conducting critical research that will lead to new treatments and therapies for stroke and head injury."

> Robert L. Marier, M.D., M.H.A. Dean, LSU School of Medicine

### Public Talks-Speakers:



#### Austin J. Sumner, M.D

is the Richard M. Paddison, M.D. Professor and Chairman of the Department of Neurology at the LSU Medical Center in New Orleans. He is medical graduate of the University of Otago, New Zealand and a fellow of the Royal Australian College of Physicians. He was awarded the Nuffield Fellowship for Postdoctoral Studies at the National Hospital for Neurology and Neurosurgery Queen Square, London where he completed his training in neurology. He was later a faculty member in the Departments of Neurology at the University of California Medical Center at San Francisco and at the University of Pennsylvania in Philadelphia, before taking up his position in New Orleans in 1988.

Dr. Sumner has published many scientific articles, serves on the editorial boards of a number of medical journals, and is currently President of the American Academy of Clinical Neurophysiology. He is a Fellow of the American Academy of Neurology, a member of the American Neurological Association, past Chairman of the American Board of Electrodiagnostic Medicine, and past President of the American Association of Electrodiagnostic Medicine. Dr. Sumner currently serves on the Executive Committee for Neuromuscular Diseases of the World Federation of Neurology and on the Advisory Committee of the LSU Medical Center's Neuroscience Center of Excellence.



#### Kenneth E. Kratz, Ph.D.

received his Doctor of Philosophy degree in 1975 from Kansas State University and then completed a three year postdoctoral fellowship at the University of Virginia. He has been at the LSU Medical School since 1978 where he is currently Professor of Cell Biology and Anatomy. Dr. Kratz is also the Assistant Director of the LSU Medical Center's Neuroscience Center of Excellence. During his tenure at the LSU Medical Center, Dr. Kratz has taught neuroanatomy to medical, allied health, and graduate students. He has traveled extensively throughout the United States presenting continuing education courses on neuroscience and neuroanatomy to healthcare professionals. Dr. Kratz' research has focused on the organization, function, and development of visual areas of the brain.



#### Daniel Rodriguez, M.D.

received his undergraduate degree from Spring Hill College in Mobile, Alabama and received his medical degree from the University of Mississippi. Dr. Rodriguez first came to the LSU School of Medicine for his residency training in the Department of Neurology. After completing his residency, he performed a two-year fellowship in cerebrovascular diseases at the Washington University in St. Louis, Missouri. Dr. Rodriguez returned to the LSU School of Medicine in New Orleans in July of this year as an Assistant Professor of Neurology and the Director of the LSU Stroke Program. He is also the Director of the Cerebrovascular Disease Institute at Memorial Medical Center in New Orleans. Dr. Rodriguez provides comprehensive care for patients with stroke, and his research interests include free radical pathology in stroke and clinical stroke trials. He is a member of the National Stroke Association and the American Heart Association Stroke Council.



#### Nicolas G. Bazan, M.D., Ph.D.

is the Director of the Louisiana State University Medical Center Neuroscience Center of Excellence in New Orleans and is Professor of Ophthalmology, Biochemistry and Molecular Biology, and Neurology. He holds the Yvette C. and Ernest C. Villere Endowed Chair for the Study of Retinal Degenerations and the Boyd Professorship, the highest academic honor in the LSU system. The Neuroscience Center of Excellence bridges basic neurobiology with clinical neuroscience through multidisciplinary research in several areas including stroke, trauma, depression, epilepsy, and neurodegenerative diseases such as Retinitis Pigmentosa, age-related macular degeneration and Alzheimer's disease.

Dr. Bazan received his M.D. from the University of Tucuman (1965), Argentina, then was a postdoctoral fellow at Columbia University's College of Physicians and Surgeons and Harvard Medical School (1965-68). His major interest is understanding the significance of signal transduction pathways that modulate gene expression in terms of survival/death in neurons, as they occur in stroke, epilepsy and neurodegenerative diseases. Dr. Bazan is internationally known for his pioneering studies on the release of lipid messengers in brain ischemia and seizures. He has also uncovered fundamental events that sustain the health of retinal photoreceptors. Dr. Bazan has received numerous awards including corresponding membership in the Royal Academies of Sciences and Medicine (Spain) and the Jacob Javits Neuroscience Investigator Award from the National Institutes of Health in 1989. He has edited 13 books, and published more than 400 articles and 900 abstracts. He has served as the editor, or a member of the editorial board, of 15 scientific journals.