

# ★ Redefining Alzheimer's

## Researchers: Brain, markers better indicators

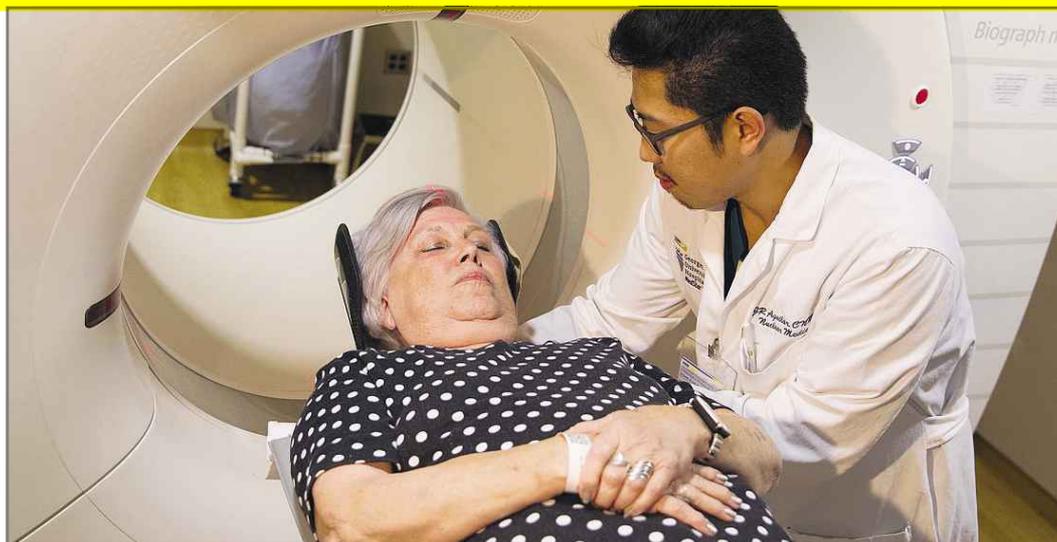
BY DELTHIA RICKS  
delthia.ricks@newsday.com

An international team of scientists, led by researchers in the United States, is proposing a new way of defining Alzheimer's disease, basing it on biological changes in the brain — and not waiting for symptoms such as memory loss to emerge.

The proposal, published Tuesday in a major medical journal, is aimed at improving research into treatments by emphasizing a “biological construct” of the disease.

Changes in the brain show up years — and sometimes decades — before overt symptoms appear, scientists said. By redefining Alzheimer's based on biological markers, patients could be more appropriately matched for treatments under study that might slow or reverse the disease, according to the proposed redefinition.

“We have always supported early diagnosis, particularly if there is a family history of Alzheimer's disease,” said Mary Ann Malack-Ragona, executive director of the Alzheimer's Disease Resource Center in Bay Shore, who was not part of the research. She ap-



Brain scans and other testing would help identify Alzheimer's patients sooner, researchers say.

plauded the proposed move away from a symptom-based definition.

About 5.7 million people nationwide have Alzheimer's disease based on its current definition. However, an estimated 50 million people worldwide are afflicted with some form of dementia, the most common of which is Alzheimer's disease, according to statistics from the National Institute on Aging.

Currently, the definition of Alzheimer's is based on patients' behavior in addition to results of tests that measure a number of cognitive parameters and memory, said Dr. Nina Silverberg, director of Alzheimer's disease programs

at the institute.

“There is still so much that we don't know about Alzheimer's and how it plays out in different people,” added Silverberg, who wrote a commentary that accompanied the massive new proposal.

Both documents were published Tuesday in *Alzheimer's & Dementia: The Journal of the Alzheimer's Association*.

Silverberg said there hadn't been a new Alzheimer's drug in a decade. A keener definition will help target patients for medication trials that best fit the biology of their disease. She said doctors would not have to change what they are currently doing. The proposal is largely

aimed at Alzheimer's researchers at this juncture.

A combination of brain scans and other methods of diagnosis, such as blood tests that spot specific Alzheimer's markers, would help identify people earlier in the course of the disease.

In addition, redefining the condition objectively would mean that the numbers of people diagnosed may increase dramatically, experts said.

“We have to focus on biological or physical targets to zero in on potential treatments for Alzheimer's,” Dr. Eliezer Masliah, director of the neuroscience division at the National Institute on Aging, said in a statement.

“By shifting the discussion to neuropathologic changes detected in biomarkers to define Alzheimer's, as we look at symptoms and the range of influences on development of Alzheimer's, I think we have a better shot at finding therapies, and sooner,” Masliah said.

Basing a diagnosis on biological markers rather than symptoms guards against misdiagnosis, because other conditions can masquerade as Alzheimer's disease, Malack-Ragona said.

A patient at her center once was thought to have Alzheimer's disease based on symptoms, but later was found to have a brain tumor. Extreme dehydration, which can occur among elderly people or through thyroid conditions, also can produce problems with memory and be mistaken as Alzheimer's disease, she said.

Authors of the new research include scientists from the National Institute on Aging, a division of the National Institutes of Health, and the Alzheimer's Association, as well as from major research centers in this country and abroad. The collaborative scientific effort represents years of scientific research, team members wrote.

“The reason we support this kind of position is that a family has to make very special plans when they suspect that someone is predisposed to Alzheimer's or other dementias,” Malack-Ragona said.

## Nassau, state probe premium, diesel mix-up

BY ELLEN YAN  
ellen.yan@newsday.com

A fuel mix-up at a Franklin Square gas station is under investigation after drivers complained their vehicles conked out, Nassau County officials said.

Drivers who thought they were pumping 93-octane, or premium, gasoline over the weekend at the Exxon on Hempstead Turnpike actually got diesel fuel, according to the Nassau County Office of Consumer Affairs.

“I did get home, and then I had to get milk and the car wouldn't start,” said Andrew Lazzarano, a BMW owner

from Garden City South. “Black smoke was coming out, and I just bought the car two months ago.”

County consumer-affairs officials said they shut down the line of pumps in question as soon as they got the first complaint on Monday. The officials were on site as the station's fuel-holding tanks were emptied and cleaned with chemicals. The state collected fuel samples for testing, and results are expected within two weeks.

Officials with the gas station and its operator, Bolla Oil Corp. in Garden City, could not be immediately reached Tuesday night.

Lazzarano's mechanic said affected vehicles will stall or fail to start, as soon as the correct gas remaining in the fuel lines is used up, leaving only diesel fuel.

“In the middle of driving, the car just shuts down and will not start again until the proper fuel gets into the system,” said Andy Papaos, owner of Andy's Auto Repair in Elmont.

County officials said they received at least two complaints but expect more as drivers learn of the mistake.

“Proper measures had been taken to address the tainted tanks,” Gregory May, acting commissioner of Nassau con-

sumer affairs, said in a statement Tuesday. “An inspector will visit the location to test the new gas upon delivery, and New York State is testing samples taken yesterday.”

Papaos said he had a tough time figuring out what was wrong with Lazzarano's BMW until a Toyota RAV customer came in with the same problem after stopping at the Exxon station. Sampling the fuel in both vehicles, Papaos saw yellow, the color of diesel.

The cost of flushing and cleaning the fuel system depends on the type of vehicle and the difficulty in taking out the gas tank, the mechanic said.

It was about \$1,000 for the BMW and \$250 for the Toyota, he said.

Lazzarano said he tried several times to restart his BMW on Sunday and Monday, burning out his battery. He said he missed two work days at the Town of Hempstead Sanitation Department and got his car back early Tuesday.

When he went to Bolla's offices, he was promised a reimbursement, he said.

“Things do happen,” Lazzarano said. “It was a mistake. But I hope they reimburse me. They were nice about it. I just want to get it resolved and I hope there's no further damage.”