MSU prof gets $5.7M to study early signs of Alzheimer’s

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A Michigan State University researcher has won a $5.67 million federal grant to study Alzheimer’s disease among Latinos.

Ultimately, Hector Gonzalez hopes the study will yield insights in ways to slow down the development of dementia or prevent it all together.

“It’s a Latino study, but what we find will apply to everybody,” he said.

Gonzalez, an associate professor of epidemiology and biostatistics in MSU’s College of Human Medicine, is the principal investigator of a national study called SOL-INCA — the Study of Latinos-Investigation of Neurocognitive Aging.

The study will draw on health data from about 7,000 middle-aged and older Hispanic adults in the Bronx, Chicago, Miami and San Diego. They will be selected from 18,000 participants already involved in a landmark national study, which gathers a wide range of data — such as genetic profiles.

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HECTOR GONZALEZ, ASSOCIATE PROFESSOR OF EPIDEMIOLOGY AND BIOSTATISTICS IN MSU’S COLLEGE OF HUMAN MEDICINE

Cardiovascular function, blood chemistry and sleep patterns.

“We have this wonderfully rich research platform existing,” Gonzalez said.

Five years ago, he worked on a baseline study on neurocognitive health among those involved in the national study. And now, with the grant, he is calling back participants to do more detailed research on Alzheimer’s and mild cognitive impairment.

Alzheimer’s disease is believed to develop over decades. Gonzalez aims to look for early signs among people in their 50s and 60s. Not all cases of mild cognitive impairment lead to Alzheimer’s, so determining when that happens could shed light on the disease.

“We are turning back the clock and trying to find answers early on,” he said.

The son of Mexican immigrants, Gonzalez said his research focuses on Latinos, in part, because the population has been neglected in scientific research.

Also, research has uncovered different rates of dementia among Latinos — the rate found on the East Coast was four times higher than in California.

The Latino population on the East Coast tends to be largely of Caribbean origin, and the West Coast tends to be more of Mexican descent, or Central American. But Gonzalez said it’s unclear why dementia rates are so different — and what role genetics or environmental factors may play.

“The findings have been around about 10 years,” he said. “Nobody has addressed this question.”

He hopes the research will yield insights that will help delay or prevent the development of Alzheimer’s, which is rapidly becoming more common in the U.S. The number of people in the U.S. with Alzheimer’s is expected to increase 40 percent in the next 10 years, from 5.1 million to 7.1 million Americans, according to the Alzheimer’s Association.

“You have to plan ahead. You don’t wait for the flood to happen. You don’t wait for the epidemic to occur,” Gonzalez said. “We are building for the future.”

The findings could have significant impact by virtue of the size of the Latino population alone, Gonzalez said. By 2050, researchers estimate that nearly one-third of the U.S. population will be Latino.

Gonzalez, who leads a research team at institutions throughout the U.S., hopes the study will continue for decades — such as the Framingham Heart Study, which began in 1948.

He intends to continue studying the participants for the rest of their lives, as long as they are willing to take part in the research. “We have such a great team and such an important mandate,” he said. “I am very confident we will continue on.”

FACTBOX

SOL-INCA RESEARCH

The Study of Latinos - Investigation of Neurocognitive Aging is led by MSU College of Human Medicine Professor Hector Gonzalez. Key points:

- It is part of the Hispanic Community Health Study/Study of Latinos (HCHS/SOL), a study involving 16,000 people ages 18 to 80, which is funded by the National Heart, Lung and Blood Institute.
- SOL-INCA will follow 7,000 adults 50 to 80 years old who may show signs of mild cognitive impairment.
- Researchers involved in the study are based at Albert Einstein College of Medicine in the Bronx, the University of Illinois in Chicago, the University of North Carolina at Chapel Hill, Wayne State University, the University of Washington and the University of Texas Health Service Center.