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Houston & Southeast Texas Chapter

Thanksgiving E-Newsletter

November 24, 2009

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Brain Function

Happy Thanksgiving!

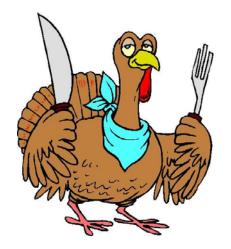
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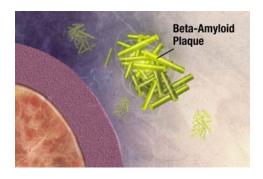
. Happy Thanksgiving!

The board, volunteers, staff, and Judy, of course!, wish you a festive Thanksgiving.

Successful Holiday Planning



Alzheimer's: Destructive Amyloid-Beta Protein May Also Be Essential for Normal Brain Function



ScienceDaily (Nov. 23, 2009) -Alzheimer's disease is thought to be caused by the build-up of a brain peptide called amyloid-beta. That's why eliminating the protein has been the focus of almost all For most families, holidays are filled with opportunities for togetherness, sharing, laughter, and memories. But holidays can also be filled with stress, disappointment, and sadness.

Because of the cognitive changes, the person with Alzheimer's may feel a special sense of loss during the holidays. At the same time, caregivers may feel overwhelmed maintaining holiday traditions while caring for the person with dementia. In addition, caregivers may feel hesitant to invite family and friends over to share the holiday for fear they will be uncomfortable with behavior changes in the family member.

drug research pursuing a cure for the devastating neurodegenerative condition.

But that may be counterproductive, says Dr. Inna Slutsky of Tel Aviv University's Department of Physiology and Pharmacology, Sackler Faculty of Medicine. Her recent research demonstrates that amyloid-beta is also necessary to maintain proper brain functioning.

These findings may shake the foundations of Alzheimer's research.

In a new study published this month in Nature Neuroscience, Dr. Slutsky finds that amyloid-beta is essential for normal day-to-day information transfer through nerve cell networks in the brain. "If this protein is removed from the brain," says Dr. Slutsky, "as some drugs in development attempt to do, it may cause an impairment of neuronal function, as well as a further and faster accumulation of amyloid-beta in Alzheimer's."

A reset button for drug researchers

Without amyloid-beta, a normal product of cellular metabolism, one's ability to learn and remember could be profoundly damaged, so drugs currently in development to eliminate amyloid-beta could be rendered obsolete. With Dr. Slutsky's research, a leap in understanding the cause and development of Alzheimer's disease, however, new, more effective drug therapies could be developed.

By studying synapses in brain slices of healthy mice and in neuronal networks growing in vitro, Dr. Slutsky and her team determined that there is an optimal amount of amyloid-beta needed to keep the neurons

If you're feeling guilty, angry, or frustrated before, during, or after, holiday celebrations, it may help to know that these feelings are normal and that you're not alone. Here are a few suggestions that may help to make holidays happy and memorable occasions.

Adjust Expectations:

Discuss holiday celebrations with relatives and close friends. Make sure they understand the situation and have realistic expectations.

Give yourself permission to do only what you can you may not be able to maintain every holiday tradition. You may want to scale back the size of the celebration, and ask others to bring dishes.

Involve the Person With Dementia

Involve the person in safe, manageable activities throughout all stages of holiday prep. This can help the person with dementia prepare for the holiday, and give you an opportunity to spend quality time together.

You may want to begin slowly by asking the person to help you prepare food, wrap packages, hand you decorations, or set up the table. (avoid using candies, artificial fruits & vegetables, or other edibles as decorations).

Maintain the person's normal routine so that holiday preparations don't become disruptive or confusing. Remember: taking on too many tasks at one time can wear on you and them.

Build on past traditions and memories. Your family member may find comfort in singing old holiday songs. As well, experiment with new holiday traditions, such as renting a seasonal movie.

Try to be Flexible

Consider celebrating over a lunch or brunch, rather than an evening meal. This may avoid evening confusion or sundowning that sometimes affects people with dementia. Also, consider serving nonalcoholic beverages and keeping the room bright.

Prepare to deal with your post-holiday letdown. You may want to arrange for in-home care so you can enjoy a movie or lunch with a friend to reduce post-holiday stress.

working well. Her students Efrat Abramov and Iftach Dolev found that if this precise balance is even slightly disturbed, the effectiveness of information transfer between neurons is greatly impaired.

"Synapses where neurons meet work as filters of information," says Dr. Slutsky. "What is really exciting for us is the fact that amyloid-beta peptide, believed to be toxic, regulates the type of information that neurons transfer."

A new way to prevent Alzheimer's?

The study of Dr. Slutsky's team suggests that the amyloid-beta protein belongs to endogenous molecules regulating normal synaptic transmission in the hippocampus, a brain region involved in learning and memory function. "There is a long list of neuromodulators that help synapses optimize information transfer," she says. "Intriguingly, amyloid- beta seems to be able to modulate this filter and shape its properties."

The new study is discouraging news for those Alzheimer drugs that attempt to block or remove the amyloid-beta aggregation process currently in clinical trials, Dr. Slutsky believes. "Our data shows that after the release of amyloid-beta, synaptic activity in the neurons is increased through a positive feedback loop. Disrupting this positive feedback loop, I believe, is the key for prevention of the earliest signs of Alzheimer's."

Dr. Slutsky completed her postdoctoral work at MIT four years ago, specializing in cellular mechanisms that maintain memory function. She received an international Young Investigator Remember that holidays are opportunities to share time with the people you love. Try to make these celebrations easy on yourself and the person with Alzheimer's disease so that you may concentrate on enjoying your time together.

Depression & Caregiving

 Early Detection Matters: The Case For Early Diagnosis of Alzheimer's Disease



The five medications approved by the Food and Drug Administration for the treatment of Alzheimer's have not been shown to slow the disease's progress. What, then, is the purpose of seeking an early diagnosis -- except to destroy one's peace of mind?

There are several good reasons, say Alzheimer's experts. They say that the drugs do, for many, decrease the severity of symptoms and, for a limited time, mask the progressive loss of mental function. That can translate into more time to get your affairs in order, a few more months of being able to live independently and line up help and a bit more time for meaningful family visits.

It is also true that responses to the drugs approved for Alzheimer's disease vary widely from patient to patient, says Dr. William H. Thies, vice president of medical and scientific relations for the Alzheimer's Assn.

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For some, the medications appear to hold off cognitive deterioration very well for a long time; for other patients, they don't. If you're a good responder -- and you won't know until you try them -- you could hold steady at a point of higher function and gain a lot of extra time.

Award in Alzheimer's disease from the Rosalinde and Arthur Gilbert Foundation of American Federation for Aging Research in 2008.

In addition to Dr. Slutsky, Dolev and Abramov, authors of the paper also include Hilla Fogel and Eyal Ruff of TAU's Sackler Faculty of Medicine, and Giuseppe Ciccotosto of the University of Melbourne in Australia.

More about Amyloid & Brain Function

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There's also new evidence that the drugs may work better at slowing the disease's progress when they are used longer, and in combination. A study published in summer in the journal Alzheimer's Disease and Associated Disorders followed 378 patients for at least 2 1/2 years and found that those who had been on the drugs longest -- and who took more than one medication for the condition -- had the slowest rates of progression of cognitive decline.

Thies also says that an early diagnosis can make the changes that come with Alzheimer's disease easier for a patient's family. Erratic behavior, irritability and loss of function are easier to cope with when understood as symptoms of a disease. "Many think this is some kind of unmasking of some underlying personality trait," Thies says. "It's not that Uncle Charlie is changing or behaving badly; it's that Uncle Charlie is sick and this is the way his illness manifests itself."

Thies also notes that a diagnosis is generally the only entree to clinical trials, which for many patients are a way to secure excellent care and to gain access to experimental therapies -- of which there are 14 in late-stage clinical trials. By their participation in studies, patients diagnosed early can give researchers new insights into the progression of the disease, which has until recently only been recognized late; those insights could lead to new drugs and new interventions that could alter the course of Alzheimer's disease. "If you are a person who's oriented to giving back to society, you'll miss that opportunity" if you delay diagnosis, Thies says.

Finally, new diagnostic tests, greater knowledge and more public awareness of dementia's symptoms are making early diagnosis more possible. A clinician who is experienced in diagnosing Alzheimer's disease can generally do so with confidence in about nine out of 10 cases, even when symptoms are newly recognized, experts say

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