Holiday tips

- **Maintain a routine.** Reliable routines and good sleep habits are key.
- **Set priorities.** What can you say NO to?
- **Set realistic expectations for ourselves and loved ones.**
- **Allow extra time for getting ready and planning holiday tasks.**
- **Limit the chaos, it tends to overwhelm.** Consider smaller gatherings and less busy spaces to celebrate.
- **Relaxation is key.** Build "down time" into the schedule and stick to it.
- **Alert important people about any special situations.** Talking to your holiday host in advance can provide you a chance for you to explain your needs and them to plan to accommodate. They also allow you to exchange holiday greetings but allow you to explain in advance why you may have to leave early or decline at the last minute.

"Blessed is the season which engages the whole world in a conspiracy of love." – Hamilton Wright Mabie
Alzheimer’s disease research programs at IU School of Medicine collaborate on disease models

Investigators from two of Indiana University School of Medicine’s largest funded research programs are collaborating on a study investigating the biology behind a gene associated with Alzheimer’s disease, with the hopes of developing a drug to treat the disease.

The three-year grant from the National Institute on Aging (NIA), worth $2.3 million in 2021, will fund a research study for the Model Organism Development and Evaluation for Late-Onset Alzheimer’s Disease (MODEL-AD) and the IU School of Medicine-Purdue TaRget Enablement to Accelerate Therapy Development for Alzheimer’s Disease (TREAT-AD) drug discovery center. The team, led by Bruce Lamb, PhD, executive director of Stark Neurosciences Research Institute; Stephanie Bissel, PhD, assistant research professor in medical and molecular genetics; and Gary Landreth, PhD, Martin Professor of Alzheimer’s Research, are investigating a gene encoded protein found in microglia—the brain’s immune cells—called phospholipase C gamma 2 (PLCG2). The gene has two genetic risk factors associated with Alzheimer’s disease.

One of the rare variants appears to increase the risk of Alzheimer’s disease while another lessens the risk of disease. MODEL-AD—a consortium of experts at IU School of Medicine, Jackson Laboratory, Sage Bionetworks and University of California, Irvine—identified the gene variant that increases the risk of disease.

“This grant helps us understand how this gene works in disease models and how it impacts the risk for Alzheimer’s disease,” Lamb said. “It really takes advantage of the models and phenotyping we have in MODEL-AD and all the data we’ve been collecting from TREAT-AD.”

Scientists with MODEL-AD will generate animal models for each gene variant and phenotype them. TREAT-AD, which began in 2019 through a five-year, $36 million National Institutes of Health grant, is working to identify potential inhibitors and activators of the gene for drug discovery.

Living with dementia: My life, my goals

Dementia Alliance International has recently released a guide for people living with dementia that seeks to help them identify goals for living well and adapting to the challenges that may arise when living with dementia.

The guide has been created by people living with dementia and looks to inspire hope and help you create your own plan for achieving your goals.

Through videos, worksheets and stories, you can build a personalized plan. To learn more or download the guide, visit dementiaallianceinternational.org.
Timothy Richardson, PhD, senior research professor of medicine, said TREAT-AD chemists are focused on designing small molecules that will activate PLCG2 to the same degree as the rare protective variant and then test the compounds in animal models generated by MODEL-AD.

“The preclinical data will support the clinical hypothesis that a drug, given to patients who have the common form of PLCG2 and are at risk of Alzheimer’s disease or have mild cognitive impairment, will protect them against neurodegeneration or provide them with a lower rate of cognitive decline as the disease progresses,” Richardson said.

In addition to this grant, MODEL-AD received an additional year of funding from the NIA ($5 million) for its program, now entering year six. The group also received a $1.3 million NIA grant supporting a collaboration with Michael Koob, PhD, associate professor at the University of Minnesota.

Koob’s laboratory has novel technology for genetic engineering, which can replace a part of the genome of a mouse with a human counterpart. Lamb said this allows human genes to be modeled in mice, so this partnership will allow MODEL-AD to expand its Alzheimer’s disease research.

Teepa’s five communication strategies to help guide repetitious questions

- **Connect** – Use the Positive Physical Approach
- **Reflect** – Provide acknowledgement that the message was received by repeating some words.
- **Offer** – Give the information being sought in a visual-verbal-movement way.
- **Interject** – Pause with a new thought (visually, verbally and physically); signal a lead shift.
- **Seek** – Use a positive action starter to shift the conversation (e.g., "Could you help me with something?")

For more, read "Understanding the Changing Brain" by Teepa Snow.

Oral hygiene and the brain

How often do you think about flossing? As soon as you hit the dentist's chair? There is increasing evidence that oral health is important to not only our teeth and gums, but also to our brains. As bacteria builds up around the teeth, gum disease can form and bacteria from the infection has an entryway to the bloodstream. Those bacteria increase plaque buildup in the arteries, potentially leading to clots and higher risk of stroke. Brushing and flossing twice a day can help reduce this risk and protect your brain health.
A look inside

- Holiday tips
- New guide for PLWD
- IU research collaboration
- Tips for repetition
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"Look at how a single candle can both defy and define the darkness."
– Anne Frank