Physician Spotlight:
Esther Oh, M.D., Ph.D.
Associate Director, Johns Hopkins Memory & Alzheimer’s Treatment Center

An associate professor in the Division of Geriatric Medicine and Gerontology, Dr. Oh was trained as an internal medicine physician with subspecialty training in geriatrics. She has been caring for patients in the Johns Hopkins Memory and Alzheimer’s Treatment Center since 2008.

What do you enjoy most about your job?
I enjoy getting to know patients and families over time. I often develop a very strong bond with them, and am amazed by the strength and resilience of my patients, as well as the love and dedication of their family and friends.

What do you think are the biggest barriers to research and care?
In terms of research, I think we need a better understanding of the underlying pathology of Alzheimer’s disease and other types of dementia. In terms of care, I think we need a better reimbursement system for supporting hands-on care for patients with dementia at home, in the hospital and in long-term care facilities.

Alzheimer's Disease Research Support Continues to Increase

For the sixth consecutive year, funding for Alzheimer’s disease (AD) and related disorders (ADRD) has increased. The National Institutes of Health (NIH) budget for fiscal year 2019 included an additional $425 million designated for ADRD research, bringing the total funding available from the NIH to $2.4 billion annually. This reflects recognition by Congress and the public at large that it is critically important to improve treatment options for patients with ADRD.

There are currently no effective treatments for AD, which means there is not an effective way of slowing disease progression or delaying its onset. This continued increase in funding is especially important in the context of recent outcomes of clinical trials. Within the past few months, three major clinical trial programs were stopped due to evidence that the medications being tested were not effective, including those supported by Biogen, Lilly and Amgen.

The funding increase will help researchers expand their efforts to understand changes in the brain that cause the disease and search for improved approaches to treatment. It also will allow for more studies on lifestyle factors – both those that increase risk and those that reduce it – in order to provide guidance to the public on ways of reducing risk for ADRD. Additionally, the increase in funding will expand care and treatment options for patients and families dealing with dementia on a daily basis.

To learn more about research opportunities at Johns Hopkins, visit alzresearch.org.
One essential element in dementia research is the study of brain tissue. Over the years, this has provided critical insights into the underlying causes of memory loss and dementia in older adults. It has been well known for some time that the primary cause of dementia is Alzheimer’s disease. There is, however, an increased understanding that it is most common for an individual with dementia to have more than one pathology present in the brain when they die. This includes cerebrovascular disease, Lewy body disease and other brain pathologies. The recognition that more than one disease may be responsible for declines in memory and thinking has led to the idea that treatments are likely needed for each of these disorders in order to be truly effective in delaying disease progression.

Since it is not currently possible to evaluate the presence of these various disorders with modern brain imaging techniques, the study of donated brain tissue serves many purposes. If an individual has experienced declines in mental abilities, the study of brain tissue is the only way to know for certain the cause of the changes. If an individual has remained cognitively normal throughout their life, the study of their brain tissue also is critical because it will help researchers identify ways the brain may resist the development of pathology as someone gets older.

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Understanding the Complexity of Changes in the Brain cont’d.

Brain tissue also allows researchers to study the age at which pathologies begin to accumulate and how they spread to different parts of the brain over time. For example, recent studies have suggested that amyloid plaques and tau neurofibrillary tangles – the hallmarks of Alzheimer’s disease – begin to accumulate in middle age. Understanding the timeframe during which pathology accumulates and the patterns of accumulation has important implications for the timing of treatments.

The brain tissue of participants who have been involved in research is particularly valuable, because it allows researchers to link all the information they obtained during life to the changes that can be seen under a microscope. That is why the Johns Hopkins Alzheimer’s Disease Research Center strongly encourages its participants to agree to brain donation. The study of donated brain tissue is critical for understanding the cause of dementia on an individual level, and for developing new treatments, interventions and prevention strategies for future generations.
You can help us learn more about the diagnosis and treatment of individuals with memory problems by volunteering for a research study. Each study has different eligibility requirements for participants. Procedures, length of study and compensation vary.

- **Memory and Aging Study of the Johns Hopkins ADRC** – 410-550-9021
- **Magnetic Resonance Imaging (MRI) Studies in Cognitively Normal Individuals or Individuals with Mild Memory Problems** – 410-955-5057
- **Positron Emission Tomography (PET) Studies in Individuals with Mild Memory Problems** – gsmith95@jhmi.edu
- **Positron Emission Tomography (PET) Studies in Individuals with Dementia** – 410-955-8516
- **Medication Trials in Individuals with Mild Memory Problems** – 410-955-5057
- **Medication Trials in Individuals with Dementia** – 410-550-9022

For more information about research studies conducted by the Johns Hopkins Alzheimer’s Disease Research Center, visit alzresearch.org.

A variety of support services offer patients and caregivers opportunities to speak with others who have similar concerns and questions about coping with Alzheimer’s disease or related disorders. These services also provide practical information and help members learn more about living with memory loss. The programs below are free and open to the public.

**Hopkins ElderPlus Caregivers Support Group**
Second Thursday of every month, 12:30-1:30 p.m.
Johns Hopkins Bayview, 4940 Eastern Ave., Baltimore, MD
Mason F. Lord Building, East Tower, Room E106
**Info.:** 410-550-7044

**Frontotemporal Dementia Group**
Second Wednesday of every month, 10:30 a.m-12:30 p.m.
Alzheimer’s Association, 1850 York Rd., Suite D, Timonium, MD
**Info.:** 410-561-9099

**Club Memory** (social club for individuals with dementia and their caregivers)
First Tuesday of every month, 2-4 p.m.
Johns Hopkins Bayview, 4940 Eastern Ave., Baltimore, MD
Harrison Medical Library and Medicine Education Center
**Info.:** 410-550-7211 or anelso18@jhmi.edu

**Web-based Family Support Resources**
Supported by the Jane K. Shapiro Dementia Care Program
**Info.:** hopkinsmedicine.org/psychiatry/memory (Click on “Patient and Family Resources.”)

For more information about support groups in your area, visit alz.org/Maryland and click on “Support Groups.”