Background: Cognitive abilities tend to decline in advanced age. A novel protective factor of cognitive decline in advanced age is purpose-in-life (PiL), a trait-like tendency to derive life meanings and purpose. However, whether PiL protects against cognitive decline in late-middle-age is unclear. Hence, we examined the association between PiL and perceived cognitive decline, one of the earliest detectable cognitive symptoms before the onset of cognitive impairment. Furthermore, we used a machine learning approach to investigate whether PiL is a robust predictor of cognitive decline when considered with the known protective and risk factors for cognition.

Methods: PiL was assessed with a 10-item questionnaire and perceived cognitive decline with the Cognitive Function Instrument among 5,441 Emory Healthy Aging Study participants, whose mean age was 63 and 51% were employed. Association between PiL and perceived cognitive decline was examined with linear regression adjusting for relevant confounding factors. Elastic Net was performed to identify the most robust predictors of cognitive decline.

Results: Greater PiL was associated with less perceived cognitive decline after adjusting for the relevant factors. Furthermore, Elastic Net modeling suggested that PiL is a robust predictor of cognitive decline when considered simultaneously with known protective (education, exercise, enrichment activities) and risk factors for cognition (depression, anxiety, diagnosed medical, mental health problems, smoking, alcohol use, family history of dementia, and others).

Limitation: This is a cross-sectional study.

Conclusions: PiL is a robust protective factor of perceived cognitive decline observed as early as middle age. Thus, interventions to enhance PiL merit further investigation.
Women and Alzheimer’s | Whitney Wharton, PhD

Women are more likely than men to develop Alzheimer's disease (AD). This increased risk is likely due, in part, to fluctuating estrogen across the lifespan. Estrogen likely has direct actions on AD brain biomarkers (Aβ and tau levels), as well as indirect actions via inflammation, sleep disruptions, and reduced brain blood flow. African Americans—men and women—are also at increased risk for AD vs. whites. As such, studies and interventions need to be thoroughly examined and tested in both African American and white participants. Emory researchers Whitney Wharton, PhD and William Hu, MD, PhD recently received funding for a new project to determine the relationship between brain and blood estrogen levels and known AD biomarkers in women. This study will enroll 150 African American and white women between the ages of 40 and 65, who are currently, or who have taken hormone therapy in the past. This observational, two year study will include 3 study visits and involves cognitive testing, in-home sleep assessment, blood and spinal fluid tests and MRI.

What is Caregiving with Pride?
This is a clinical study to develop a caregiver training program to address the unique challenges faced by lesbian, gay, and bisexual informal caregivers of people living with dementia. Our goal is to improve caregiver mastery and mood, and reduce stress in LGB caregivers of loved ones and friends with dementia.

What is involved in participating?
- Medical History and Health Questionnaires
- Two blood tests for stress and inflammation
- Six week caregiver course (2 hours, once a week)
- One 90 minute focus group

The study involves approximately 9 visits over the course of 6 months. You will be compensated $150 for your time.

You may be eligible to participate if you are:
- Lesbian, gay, or bisexual
- 18 or older
- Consider yourself to be a primary caregiver for a person living with dementia
- Have normal memory and thinking abilities
- Are available to attend a six week course at Emory University in the evenings (after 6 pm), two hour clinic visits, and a focus group

404-712-2654
Morgan Hecker | Study Coordinator | morgan.hecker@emory.edu
### Honor Research Registry
- Longitudinal study of changes in memory and other cognitive skills
  - Aging people with no memory problems
  - People of any age with MCI, Alzheimer’s disease or other forms of dementia
  - Willing to participate in additional research studies, Study partner available to participate in visits
  - Samantha Heldenberg
  - 404-712-7542
  - shelden@emory.edu

### Registry for Remembrance: An initiative to increase awareness & participation in neurology research
- Ethnic individuals of African Ancestry, Aging people over 60 with no memory problems
- People of any age with mild cognitive impairment, Alzheimer’s disease or other forms of dementia, Study partner available to for all visits
- Crystal Davis
  - 404-727-6696
  - Cpdavis@emory.edu

### Emory Healthy Aging Study – This study is the largest clinical research study ever conducted in Atlanta. It is designed to further our scientific understanding of how we age, so that we can better understand, prevent and treat diseases of aging.
- Ages 55-90 years
- Must have email address and internet access
- Beckey Byram
  - 404-712-0195
  - rbyram@emory.edu

### ADNI-3 – Long-term study (2-4 years) being conducted as part of the Alzheimer’s Disease Neuroimaging Initiative to characterize changes in the brain associated with MCI and AD. Subjects will undergo multiple MRI and PET scans, lumbar puncture, blood draws and cognitive testing.
- Healthy Controls or Diagnosis of MCI or AD
- Ages 55-90 years
- To participate, simply sign up online at www.healthyaging.emory.edu,
  - complete a brief health history questionnaire and occasionally respond to various surveys and complete online memory tasks
- Becky Byram
  - 404-712-0195

### EMERALD: 1 Year study to determine the effectiveness of Montelukast (anti-inflammatory drug) in persons with a diagnosis of mild cognitive impairment or early Alzheimer’s disease.
- Study Partner
- MCI or early AD
- Age > 50
- Shakyra Tyus
  - styus@emory.edu
  - 404-712-6332

### HEART - 8-month study designed to see if an FDA-approved blood pressure medication may benefit AD prevention in African Americans.
- African American
- 45 years and older
- Have or did have a parent with dementia
- Danielle Verble
  - 404-712-7085

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Thank you all for continuing to support A Family Affair. The 10th annual fundraiser was held at the Atlanta History Center on November 14, 2019. This year’s event raised more than $1 Million to advance discovery toward a cure. For this year’s momentous event, we were honored to have Carolyn and Lem Hewes as our Chairs and Carolyn Young and Ambassador Andrew Young as our Honorary Chairs. Carolyn and Lem Hewes have been part of A Family Affair since its earliest days, and they are dedicated to supporting many areas of brain health, including Alzheimer’s disease, autism, and caring for veterans living with post-traumatic stress disorder.

Each year this program brings together the families touched by Alzheimer’s, their friends who want to be supportive, and the scientists of the ADRC who are battling the disease in the research labs and clinics. Save the Date for the 11th annual program at the Atlanta History Center on November 19, 2020. For information contact Natalie Zellner at 404-712-2084.

**EMORY GOIZUETA ADRC 19TH BRAIN HEALTH FORUM APRIL 21, 2020**

**THE THALIA N. CARLOS HELLINIC COMMUNITY CENTER**

**2500 CLAIRMONT ROAD | ATLANTA, GEORGIA 30329**

Alzheimer disease (AD) afflicts millions of people in the United States—one in eight Americans over age 65—and accounts for approximately $200 billion in direct healthcare costs and $210 billion in unpaid caregiving each year. By 2050, AD prevalence is projected to be 11 million to 16 million. Research is currently focused on the prevention or delay of AD onset through other means, such as changes in lifestyle and treating other chronic health conditions. We will share information about risks assessments, disease prevention and therapeutic advances in Lewy Body Dementia, Vascular Dementia and Chronic Traumatic Encephalopathy (CTE). Registration is open to the public and we encourage you to reserve your space TODAY.

Visit www.alzheimers.emory.edu. Be sure to invite a friend, colleague or loved one to this comprehensive, interdisciplinary forum. Call Cornelty Dorbin at 404-712-1416 to register.
While the Goizueta ADRC houses numerous basic and clinical research activities focused on Alzheimer’s and related illnesses, there is vigorous activity, as well, that is seeking to address concerns of those who provide the most care to persons living with dementia – family caregivers. We want to highlight the work of three researchers from the School of Nursing who are particularly concerned with providing ways to preserve the health and strengthen the capacities of family caregivers and whose work, each in its own way, engages the caregiver and care recipient in shared involvements.

Kalisha Bonds, PhD, RN. Dr. Bonds has studied the processes and dynamics in which African American individuals living with a dementing illness and their family caregivers engage to make health care choices and decisions. She is continuing to explore decision making in African American families as she begins to develop programs to assist them to engage in difficult conversations in ways that are both productive and culturally congruent.

Glenna Brewster, PhD, RN. Dr. Brewster’s work tackles the often very burdensome issue of sleep disturbance in those living with a dementing illness and in their family caregivers. Through pilot support from the GARD and a grant from the Alzheimer’s Association, Dr. Brewster is developing and testing an in-home, in-person program that jointly engages persons living with mild cognitive impairment or with the early stage of a dementing illness and their family caregivers in training to promote behaviors that can contribute to improved sleep and reduced sleep disturbances.

Fayron Epps, PhD, RN. Supported by grants from the Goizueta ADRC, Oregon Alzheimer’s Disease Center, Alzheimer’s Association, HRSA, and National Institute on Aging, Dr. Epps is examining ways in which faith traditions, particularly African American faith traditions, can serve as the platform both for promoting the quality of life and engagement of persons living with Alzheimer’s and related illnesses and also for sensitizing community institutions, especially churches, to be more aware, receptive, and supportive with regard to their members who are living with these illnesses and their family caregivers.

Through a unique partnership with Georgia Institute of Technology the Cognitive Empowerment Program aims to provide people with Mild Cognitive Impairment (MCI), and their care partners and families an opportunity to participate in comprehensive lifestyle programs that promote joy, purpose, health, and wellness. Members of the program will receive personalized assessments and goal setting sessions designed to empower them as they seek to implement healthy brain interventions. The program is for patients and families in Emory’s Cognitive Neurology Clinic who receive a diagnosis of MCI due to presumed Alzheimer’s Disease or other related conditions. The program is a unique comprehensive lifestyle program that addresses the following domains via various interventions:

- Physical Activity
- Cognition
- Functional Independence
- Social Engagement
- Wellbeing
- Education

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Interested in donating your brain to the Emory Alzheimer’s Disease Research Center?

Participation in the autopsy program through the Emory ADRC requires, at a minimum, a one-time visit to Emory for collection of baseline measures. The visit takes approximately 3 hours and includes: Consent interview | Interviews with the participant and study partner to review | Medical history Family history | Current activities and concerns | Cognitive testing | Physical and neurological exam | Retinal imaging (includes dilating eyes, similar to regular eye exams). Additionally, we will contact you periodically (not more than once per year) to update your research record.

If you would like to participate or have further questions, please call Erin Carter at 404-712-6838 and let her know you are interested in completing a “one-time HONOR visit for autopsy purposes.”