Want to Know More about Aging in America? A rich resource for information about aging is published by the Federal Interagency Forum on Aging-Related Statistics. Available free online at agingstats.gov, the Chartbook covers many topics, including population, economics, health status, health care, health behaviors, environment and caregiving.

Clinical Trials and Older Adults Did you know that evidence about the benefits and harms of most medications for diseases of aging comes from research studies whose participants are on average 20 years younger than the actual recipients? Under-participation of older adults in clinical trials is partly due to restrictive trial designs, but also to lower volunteer rates. The Health Information section of the NIA website (www.nia.nih.gov) provides tips on questions to ask before participating in a trial and about ways to find out more about ongoing trials.

Prior Newsletters You can check out all our prior newsletters at the BLSA website (www.blsa.nih.gov) under “about BLSA”. Look for “BLSA Newsletter” toward the bottom of the column on the left.

Message from the BLSA Director After 4 wonderful years with BLSA, I plan to retire from Federal Service at the end of 2017, but will continue to be involved as a volunteer. Drs. Luigi Ferrucci, Eleanor Simonsick and Chee Chia will be leading BLSA and are committed to continuing this Newsletter. Thanks to all of you for your commitment to BLSA!

Send us a note by email: BLSA_Newsletter@nih.gov or by mail, BLSA Newsletter, 3001 S Hanover St Baltimore, MD 21225.
**Recent Findings from the BLSA**

**Getting Tired While Walking Predicts Future Mobility Ability**

Feeling tired a lot can be due to a demanding life or to loss of fitness. Dr Simonsick and others found that how fatigued a person gets while walking is a better predictor of future problems with mobility compared to reports of overall low energy or tiredness and adds to the ability of mobility performance to predict future function. For example, for two people who walk quickly, the one who does not feel tired has better future mobility.  

**Fatigued but not Frail: Perceived Fatigability as a Marker of Impending Decline in Mobility–Intact Older Adults**  
Simonsick et al American Geriatrics Society 2016

**Men and Women have Different Trajectories of Cognitive Change with Normal Aging**

In the absence of cognitive impairment or dementia, cognition changes with aging, but the pattern differs by sex. While men have better visual-spatial ability at baseline, women do better on most other measures of cognition. Over time, men decline more rapidly in overall mental status, perceptuomotor speed and visual-spatial ability. Women do not decline faster than men in any aspect tested. Women may have greater resilience to age-related cognitive decline compared to men.  

**Sex Differences in Cognitive Trajectories in Clinically Normal Older Adults**  
McCarrey et al Psychology and Aging 2016

**Low Vitamin D Levels and a Genetic Tendency to Low Vitamin D are Related to Cognitive Function in Healthy Aging**

Vitamin D levels can be lower due to diet, sun exposure or genetic variability in the protein that transports Vitamin D to body tissues. Both low Vitamin D levels and a higher risk pattern of the gene markers for the vitamin D carrier protein were associated with lower performance on tests of executive function but not with memory.  

**State and trait-dependent association of vitamin D with brain function during aging**  
Kueider et al Neurobiology of Aging 2016

**Prediabetes Affects Muscle Energy Production**

While clinically recognized diabetes in known to affect many body systems, less is known about the health consequences of prediabetes, defined as borderline elevations of fasting blood sugar or two hour glucose tolerance test. Energy production in muscle cells can be measured using a novel imaging method in which chemical changes in muscle are assessed using MRI after vigorous exercise of the knee. This study found that persons with prediabetes had worse energy recovery after exercise. The effect was stronger when prediabetes had been present for a longer time or was more severe.  

**Insulin resistance is associated with reduced mitochondrial oxidative capacity measured by 31-P magnetic resonance spectroscopy in participants without diabetes from the Baltimore Longitudinal Study of Aging**  
Fabbri et al Diabetes Jan 2017

**Anemia that is Not Due to Low Iron is Associated with Insomnia**

Insomnia is a common problem in older adults, as are some forms of anemia. While anemia is known to be associated with insomnia in children, little is known about the relationship in older people. This study found that BLSA participants with a common form of anemia-one that is not related to low iron, were more likely to have insomnia and had worse insomnia symptoms, even after accounting for many other factors that affect sleep. It is not clear if treating anemia would help improve sleep but suggests that possibly insomnia symptoms might suggest a need to check for anemia.  

**Association between non-iron-deficient anemia and insomnia symptoms in community-dwelling older adults: the Baltimore Longitudinal Study of Aging**  

**Subtle Changes in Inner Ear Function Affect Balance**

Balance problems are common in older people and can have many causes. Subtle changes in the vestibular system can be detected by evaluating the motion of the eyes when the head is turned. Such subtle changes were associated with difficulty standing with one foot in front of the other. Inner ear problems are often asymptomatic and a variety of rehabilitation approaches have proved successful. Compensatory saccades are associated with physical performance in older adults: data from the Baltimore Longitudinal Study of Aging  