Neuroinflammation is an important contributor to the pathogenesis of dementia, but the role of circulating inflammatory markers is unclear. The aim of the study is to identify circulating inflammatory biomarkers associated with cognitive function in the Framingham Heart Study Offspring cohort. We used OLINK inflammation protein panel to measure 92 inflammation protein biomarkers using stored plasma samples at Offspring examination 7 (1998-2001) from 879 participants (52% female, mean 61 years range 40 to 88 years, 22% APOE e4 carrier). Cognitive function was assessed with seven tests derived from a neuropsychological (NP) testing battery representing four cognitive domains collected closest to the 7th examination. 68 proteins with at least 50% values above the limit of detection (LOD) were clustered with hierarchical clustering, and data below LOD were replaced with LOD/√2. We identified nine clusters of highly correlated proteins and created cluster composite scores on the first principal component of each. Adjusting for age, sex and education, five of the seven NP tests are nominally associated (p < 0.05) with at least one of the protein clusters, and five of the nine clusters are associated with at least one of the NP tests. The executive function test Trails B–Trails A is nominally associated with three clusters, and the Boston Naming Test 30 items version with two clusters, both sharing one common cluster which includes IFN-γ-inducible chemokines involved in inflammatory conditions. Future analyses will explore individual protein associations with cognitive test performance and incident dementia and will investigate the biological relevance of the identified clusters.

**PREFRONTAL BLOOD FLOW DURING DUAL-TASK WALKING IN ADULTS WITH AND WITHOUT MILD COGNITIVE IMPAIRMENT**

Cristina Udina Argilaga1, Stella Avtzi2, Turgut Durduran3, Andrea Rosso1, Miriam Mota2, Joan Ars1, and Marco Inzitari1. 1. Parc Sanitari Pere Virgili, Barcelona, Catalonia, Spain; 2. Institut de Ciències Fotòniques, The Barcelona Institute of Science and Technology, Barcelona, Catalonia, Spain; 3. University of Pittsburgh, Pittsburgh, Pennsylvania, United States; 4. Vall Hebron Research Institute (VHIR), Barcelona, Catalonia, Spain

Background: Blood flow differences in the prefrontal cortex (PFC) during dual-task walking are thought to indicate various degrees of neural efficiency. Individuals with poorer neural resources might need higher activation to meet behavioral performance. We aim to assess PFC cerebral blood flow (CBF) among older adults with and without mild cognitive impairment (MCI) during dual-task using functional Diffuse Correlation Spectroscopy (fDCS).

Methods: We assessed PFC CBF with DCS during dual-task paradigm: 1) Normal Walk (NW); 2) Forward-count (FWC); 3) Backward-count (BWC); 4) Obstacle negotiation (WWO). We assessed demographics, clinical variables, physical and cognitive function in those with MCI vs normal cognition (NC). Linear mixed effects models assessed changes of CBF across the tests in the dual-task paradigm and differences between MCI and NC.

Results: 49 older adults (median age=78 years, 51% women, 34 MCI) were included. MCI were older, with higher frailty, polypharmacy and comorbidity. Compared to NC, MCI showed worse cognitive and physical performance scores and lower Gait Speed (GS) during NW and WWO but not during FWC and BWC. N=12 were unable to perform BWC. CBF change from NW to FWC was higher in MCI compared to NC (estimate=0.35, 95% CI [0.03, 0.67], p=0.03). CBF change from NW to BWC and WWO was not different between groups. There was no effect of age or clinical covariates.

Conclusions: Higher NW-FWC CBF change seems due to the cognitive load of FWC in MCI. Higher activation in MCI compared to healthier counterparts could be explained by compensatory mechanisms. Further research should focus on better understanding dual-task related neural mechanisms.

**THE EQUIVALENCE OF CANTAB AS A COGNITIVE FUNCTION MEASURE FOR CHINESE STROKE SURVIVORS: A PILOT STUDY**

Fanfan Li1, Huanzhi Zhu1, Bei Wu2, Hanzhang Xu3, Jing Wang4, and Juan Li1. 1. Naval Military Medical University, Shanghai, Shanghai, China (People’s Republic); 2. New York University, New York, New York, United States; 3. Duke University, Durham, North Carolina, United States; 4. University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, United States; 5. Huashan Hospital affiliated to Fudan University, Shanghai, Shanghai, China (People’s Republic)

This study aims to investigate the equivalence between Cambridge Neuropsychological Test Automated Battery (CANTAB) and Montreal Cognitive Assessment, Changhai version (MoCA-CS) as cognition measures for Chinese stroke survivors. Sixteen stroke survivors were recruited from stroke center in Shanghai, China. Participants completed Paired Associates Learning (PAL) task in CANTAB, MoCA-CS and questionnaire about demo-social characteristics. Pearson correlation and hierarchical regression were used for equivalence analysis. CANTAB-PAL task performances (PAL First Attempt Memory Score, PALFAMS, PAL Total Attempts 2 Patterns, PALTA2) were significantly associated with score of MoCA-CS and delayed recall (β=0.528, p=0.014; β=0.198, p=0.043; β=-3.885 , p=0.017; β=-1.600, p=0.026, respectively) after controlling for age, gender and education. The results suggest CANTAB-PAL is a reliable tool for measuring Chinese stroke survivors’ cognitive function. Future studies are needed to establish the equivalence of CANTAB in multi-tasks in larger sample of Chinese stroke survivors.

**DOES NEGATIVE AFFECT MODERATE THE RELATIONSHIP BETWEEN SUBJECTIVE COGNITIVE CONCERNS AND OBJECTIVE FUNCTIONING?**

Bradley Dixon, Kylie Kaday, and John L. Woodard, Wayne State University, Detroit, Michigan, United States

The onset of Alzheimer’s disease can be insidious, slowly affecting an individual’s cognitive abilities. Previous research demonstrated that informant-reported cognitive decline was associated with significantly worse baseline and longitudinal cognitive performance than was a participant’s subjective perceptions of decline. What remains unclear is how
negative affect (i.e., depressive symptoms) could moderate the relation between objective cognitive performance and subjectively perceived cognitive concerns (participant vs. informant). Using the National Alzheimer’s Coordinating Center (NACC) database, we performed moderated multiple regressions to test whether Geriatric Depression Scale (GDS) score showed different relationships with cognitive measures (animal/vegetable fluency, digit span, Boston Naming Test, digit-symbol coding (DSC), Wechsler Memory Scale Logical Memory, Trail-Making Test, and Mini-Mental State Examination) for participant- and informant-reported cognitive decline (yes/no). Participants were aged ≥65 years and were cognitively healthy at baseline. Informants lived with the participant or visited the participant weekly (N = 9,354). Participant-reported cognitive concern interacted significantly (p<.05) with negative affect only for animal fluency while informant-reported cognitive concern interacted significantly with DSC. Depressive symptoms were associated more strongly with cognitive performance for participants who did not report a subjective cognitive decline compared to those who did report a subjective cognitive decline. Participant age showed significant negative relationships with all measures while GDS score showed significant negative relationships with all measures except immediate Logical Memory recall, regardless of decline status. In conclusion, negative affect generally did not moderate the relationship between participant- or informant-reported cognitive concerns and objective cognitive functioning except for animal category fluency and DSC.

PREVALENCE AND FACTORS ASSOCIATED WITH MOTORIC COGNITIVE RISK IN A COMMUNITY-DWELLING OLDER SCOTTISH POPULATION
Donncha Mullin¹, Lucy Stirland¹, Tom Russ¹, Michelle Luciano¹, and Graciela Muniz Terrera², 1. University of Edinburgh, Edinburgh, Scotland, United Kingdom, 2. Ohio University, Athens, Ohio, United States

Motoric Cognitive Risk (MCR) syndrome combines slow walking and self-reported cognitive complaints. It is a quick and simple way of identifying individuals at high risk of developing dementia. MCR has not been described in a Scottish population to date. This study describes the prevalence and associated factors of MCR in a community-dwelling sample of older Scottish people. The MCR concept was derived in the Lothian Birth Cohort 1936 (LBC1936) - a highly phenotyped cohort of over 1000 people followed up every 3 years since 2004. Uniquely, participants in LBC1936 had their IQ measured at age 11 in 1936. Authors found MCR prevalence of approximately 5.4% at baseline. Using logistic and linear regression analysis, as appropriate, they found that participants’ age, depressive symptoms and cognitive measures of executive function were significantly associated with an increased likelihood of have MCR, but that IQ aged 11 was not associated. This study found rates of MCR in Scotland are within the typical range for this age group, albeit on the lower end. Interestingly, IQ at age 11 was not significantly associated with MCR, which was unexpected given MCR’s prognostic value for dementia. That tests of executive function were associated with MCR adds further credence to the hypothesis that walking speed and executive function are linked. This points to further important work to ascertain if increasing walking speed can improve executive function.

SEX DIFFERENCES IN THE ASSOCIATION BETWEEN BODY COMPOSITION AND 2-YEAR CHANGE IN COGNITIVE FUNCTION
Daehyun Lee¹, Miji Kim², Hyung Eun Shin³, Jae Young Jang³, and Chang Won Won², 1. Kyung Hee University, Seoul, Seoul-t'ukpyolwi, Republic of Korea, 2. Kyung Hee University, Seoul, Seoul-t'ukpyolwi, Republic of Korea

In the process of aging, the loss of lean mass and increase in fat mass are associated with cognitive decline. This study investigated sex differences in the association between body composition and changes in cognitive function in community-dwelling older adults in Korea. A total of 1,420 participants (aged 70–84 years, 54.2% men) of the Korean Frailty and Aging Cohort Study with data from baseline and 2-year follow-up surveys were included. Body composition was measured using dual-energy X-ray absorptiometry and cognitive function was assessed using the Korean version of the Consortium to Establish a Registry for Alzheimer’s Disease Assessment Packet. The total fat mass was lower in men than in women (p< 0.001), whereas total lean mass was higher in men than in women (p< 0.001). Total body fat mass was positively associated with the time taken to finish the Trail Making Test-A only in women (standardized beta coefficient [ß]= -1.371, p=0.018), and a negative association was observed between trunk fat mass and digit span total only in men (ß= -0.092, p=0.039). Appendicular lean mass was significantly positively associated with word list recognition only in women (ß=0.087, p=0.010) and was significantly positively associated with digit span total (ß=0.108, p=0.027) and digit span forward (ß=0.081, p=0.025) only in men. The results of this study indicated that higher fat mass was associated with the protection of decline in cognitive function only in women, while lean mass was positively associated with a change in cognitive function in both sexes.

COPING WITH COGNITIVE DECLINE AMONG OLDER ADULTS WITH MILD COGNITIVE IMPAIRMENT OR MILD DEMENTIA: A SCOPING REVIEW
Youngmin Cho¹, Donruedee Kamkhoad², and Anna Beeber¹, 1. University of North Carolina - Chapel Hill, Chapel Hill, North Carolina, United States, 2. The University of North Carolina at Chapel Hill School of Nursing, Chapel Hill, North Carolina, United States

As cognitive impairment progresses, Persons with Mild Cognitive Impairment or Mild Dementia (PwMCI or MD) have trouble in adapting to changes in their cognitive functioning and, as a result, develop challenges in daily activities. If these challenges are not appropriately addressed, PwMCI or MD can experience poor health outcomes and quality of life. Coping, behavioral and cognitive efforts to regulate the distress from a certain stressful situation, is widely regarded as a fundamental determinant of health outcomes. We conducted a scoping review to understand what coping strategies PwMCI or MD used, and facilitators and barriers of the use of these coping strategies. Using the PRISMA-ScR