SOMMA Ancillary Studies

Ancillary Study Number	Investigator	Title	NIA Grant Number *(if applicable)*
001	Cauley, Jane Strotmeyer, Elsa	Bone microarchitecture and bone strength: relationships to muscle quantity, quality and function in older adults	AR076752
002	Sparks, Lauren	Investigating the role of adipose tissue in declines in muscle mitochondrial ATP production and mobility with aging (SOMMA-AT)	AG066474
003	Molina, Anthony Shiva, Sruti	Blood Cell Bioenergetics	AG072734
004	Lane, Nancy	Associations of muscle quality and quantity with knee osteoarthritis in elderly individuals, SOMMA-OA	AG070647
005	Farsijani, Samaneh	The relationship between age-related protein intake, gut microbiome, inflammaging and loss of mobility	AG071855
006	Hepple, Russell	The Role of Mitochondrial Permeability Transition in Aging Muscle Atrophy	AG066758
007	Lenchik, Leon Lenchik, Leon Cawthon, Peggy Hepple, Russ	Validation of Computed Tomography (CT) Imaging Biomarkers of Muscle, Mobility and Aging	AG070804
008	Duchowny, Kate	Examining the association between the neighborhood environment and muscle function in older adults	AG066846
009	Coen, Paul	Impact of mitochondrial genetics on mitochondrial and physiological function in older adults	AG075081
010	Zhang, Tan	Immunoglobulin G Subclass Profile as Novel Biomarker of Skeletal Muscle Aging in Older Adults	
011	Zhang, Tan	Novel role of cardiac troponin T and its autoantibodies in skeletal muscle of older adults	
012	Rosano, Caterina	Understanding the connections between aging brain and muscle: adding neuroimaging to the comprehensive measurements of muscle and mobility in SOMMA	AG075025 AG061393
013	Bauer, Scott	Longitudinal Associations of Muscle Mass and Volume with Lower Urinary Tract Symptoms in Older Adults	AG074903
014	Molina, Anthony	The role of circulating factors in skeletal muscle bioenergetics and the physical abilities of older adults	
015	Zhang, Tan	Autoimmune related Muscle and Serum Biomarkers for Sarcopenia Prediction	
016	Weaver, Ashley	Computed tomography muscle size and composition associations with hip and spine bone strength over 3 years: SOMMA-CT	AG079975
017	Lane, Nancy	The association of abdominal adipose tissue and musculoskeletal pain.	
018	Hepple, Russell	Circulating factors that associate with physical function in aging humans	
019	Xu, Ming	Heterogeneity of human adipose tissue senescence and its relationship to physical function and mobility.	

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020	Melov, Simon	Spatial Transcriptomics in SOMMA muscle: A pilot study.	
021	Coen, Paul	Integration of multiomics analysis of skeletal muscle with mitochondrial energetics to predict declines in physical function in the Study Of Muscle, Mobility and Aging.	
022	Rosano, Caterina	Blood biomarkers of Muscle-Brain Cross talk.	
023	Cummings, Steve Fortney, Kristen	Proteomic Profiling to Investigate Aging Mechanisms	
024	Wyles, Saranya	Skin Health as a Biomarker for Muscle Aging and Frailty	
025	Hepple, Russ Cummings, Steve	Myocellular Molecular Damage (SOMMA Damages)	
026	Lane, Nancy	Is inflammation associated with muscle strength and gait speed in subjects with knee OA	
027	Cummings, Steve	Assessment of double-strand DNA breaks in muscle, fat and blood	
028	Maslov, Alex	Pilot Study of SMM method to quantify mutations in DNA	
029	Zhang, Yuanyuan	Characterization of the Mitochondrial Function, Stemness, and Senescence of Human Urine-derived Stem Cells (USCs) in The Study of Muscle, Mobility, and Aging (SOMMA)	
030	Bauer, Scott	Longitudinal Associations of Lower Urinary Tract Symptoms with Cognitive Function and Dementia in Older Adults	
031	Full, Kelsie	Investigating 24-hour activity as a modifiable risk factor for AD: leveraging longitudinal measures of actigraphy, cognitive health, and neurodegeneration	AG083223
032	Glynn, Nancy	Accelerometer-derived Metrics to Estimate Functional Capacity in Older Adults.	
033	Karere, Genesio	Identification of miRNA biomarkers, miRNA-gene networks and pathways underlying peak V02 variation in older Americans. (previously: Identification of miRNA-gene networks underlying physical function in older Americans)	
034	Deep, Gagan	Extracellular vesicles based liquid biopsy approach in the study of muscle mobility and aging.	
035	Sveinsson, Bragi	Predicting physical function from MRI SOMMA data using machine learning.	
036	Duchowny, Kate Molina, Anthony	Exploring the Relationship between Socioeconomic Position, Physical Functioning, and Systemic Markers of Mitochondrial Bioenergetics Among Older Adults.	
037	Lane, Nancy Sparks, Lauren	Interrogating the relationship of intermuscular adipose tissue (IMAT) cell composition with muscle function/strength and knee pain (Knee OA SOMMA cohort) using single nuclei RNAseq	
038	Seldin, Marcus	Defining the age-associated landscape of adipose-muscle signaling in humans.	
039	Hepple, Russ	A novel approach to assess fiber type grouping in aging skeletal muscle.	

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040	Farsijani, Samaneh	The associations between chrononutrition behaviors, gut microbiome, and cardiometabolic health among older adults: The Study of Muscle, Mobility and Aging (SOMMA).	
041	LaCross, Jennifer	The Effects of Age and Physical Activity on Pelvic Floor Morphology.	
042	Campbell, Matthew	Metabolic response to contraction in a 3D engineered muscle tissue model of aging.	
043	Miller, Richard	Assessment of aging rate indicators in human skeletal muscle, adipose tissue and plasma and their associations to performance	
044	Hochhegger, Bruno	Pulmonary imaging and Aging	
045	Kyriazis, Georgios	TAS1R2 and skeletal muscle aging	
046	Ramos, Sofhia	Investigating the relationship between mitochondrial energetics and morphology in older adults with diabetes.	
047	Evans, Dan	Characterization of age-related gene expression in muscle in SOMMA	
048	McNeish, Brendan	Impact of Taxane Chemotherapy on Gait Performance in Older Women: Does Executive Function matter?	
049	Campbell, Matthew	Mitochondrial protein interaction landscape following muscle contraction	
050	Ahn, Bumsoo	Unacylated ghrelin levels change age-dependent manner in human plasma samples, and lower expressions are associated with performance traits in older adults.	
051	Hetherington-Rauth, Megan	Role of altered kynurenine-pathway metabolites in age-induced musculoskeletal pathophysiology	
052	Bauer, Scott	Investigating Dimensions and Mechanistic Mediators of the Association Between Kidney Health and Mobility Disability in Older Adults	

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