



Welcome to this month's edition of NExTNet News. In addition to pertinent announcements, RFAs, and news stories, follow the exciting research advances of NExTNet members and their investigative teams with links to recent findings.

NExTNet News is prepared monthly by Jenny Martz, NExTNet Coordinator. For future editions, please send relevant stories, articles, scientific publications, or announcements to nextnet@uab.edu.

December 2016

Announcements

- Teleconference
 - The next teleconference will take place on Tuesday, February 14, 2017 at 10am CST. If you are interested in presenting on this or a future teleconference please email nextnet@uab.edu.

Upcoming Meetings and Conferences

- [Experimental Biology 2017](#) April 22-26, 2017, Chicago, Illinois
- [ACSM Annual Meeting](#) May 30-June 3, 2017, Denver, Colorado
- [International Conference on Ambulatory Monitoring of Physical Activity and Movement](#) June 21-23, 2017, Bethesda, Maryland

New Findings from NExTNet Investigators

Aging

- [Repletion of vitamin D associated with deterioration of sleep quality among postmenopausal women.](#)
- [Dynapenia and Metabolic Health in Obese and Nonobese Adults Aged 70 Years and Older: The LIFE Study.](#)
- [Aging, not age-associated inflammation, determines blood pressure and endothelial responses to acute inflammation.](#)

Cancer

- [Mammographic texture and risk of breast cancer by tumor type and estrogen receptor status.](#)
- [Nausea and disturbed sleep as predictors of cancer-related fatigue in breast cancer patients: a multicenter NCORP study.](#)

Cardiovascular

- [Socioeconomic and partner status in chronic heart failure: Relationship to exercise capacity, quality of life, and clinical outcomes.](#)
- [The Effect of Acute Aerobic Exercise and Histamine Receptor Blockade on Arterial Stiffness in African-Americans](#)

[and Caucasians.](#)

- [The Impact of Exercise on Statin-Associated Skeletal Muscle Myopathy.](#)
- [Ankle-brachial index and incident diabetes mellitus: the atherosclerosis risk in communities \(ARIC\) study.](#)

Cell and Molecular Biology

- [Greater V'O₂ peak is correlated with greater skeletal muscle deoxygenation amplitude and hemoglobin concentration within individual muscles during ramp-incremental cycle exercise.](#)
- [Mechanisms of in vivo ribosome maintenance change in response to nutrient signals.](#)
- [Exercise Responses in Patients with Chronically High Creatine Kinase Levels.](#)

Exercise – Drug/Diet/Device/Disease/Surgery/Cultural Interactions

- [The Impact of Exercise on Statin-Associated Skeletal Muscle Myopathy.](#)
- [An intervention to reduce sitting and increase light-intensity physical activity at work: Design and rationale of the 'Stand & Move at Work' group randomized trial.](#)
- [Application of the Marginal Structural Model to Account for Suboptimal Adherence in a Randomized Controlled Trial.](#)
- [Utility of ultrasound for body fat assessment: validity and reliability compared to a multicompartiment criterion.](#)
- [Demographic factors, workplace factors and active transportation use in the USA: a secondary analysis of 2009 NHTS data.](#)
- [Panax ginseng and Salvia miltiorrhiza supplementation during eccentric resistance training in middle-aged and older adults: A double-blind randomized control trial.](#)
- [Number of Persons With Symptomatic Knee Osteoarthritis in the US: Impact of Race and Ethnicity, Age, Sex, and Obesity.](#)
- [Frailty in HIV: Epidemiology, Biology, Measurement, Interventions, and Research Needs.](#)

Metabolic

- [The relationship of fasting hyperglycemia to changes in fat and muscle mass after exercise training in type 2 diabetes.](#)
- [Greater V'O₂ peak is correlated with greater skeletal muscle deoxygenation amplitude and hemoglobin concentration within individual muscles during ramp-incremental cycle exercise.](#)
- [Harder, better, faster, longer? Investigating the physiological threshold of endurance exercise.](#)

Neuroscience and Stroke

- [Resting-state connectivity biomarkers define neurophysiological subtypes of depression.](#)
- [Effects of 2 Years of Exercise on Gait Impairment in People With Parkinson Disease: The PRET-PD Randomized Trial.](#)
- [Do sex differences in rumination explain sex differences in depression?](#)
- [Resistive Training and Molecular Regulators of Vascular-Metabolic Risk in Chronic Stroke.](#)

Pediatric

- [Comparison of the Effects of Stable and Dynamic Furniture on Physical Activity and Learning in Children.](#)

Additional New Findings

- [Outcomes Following a Vestibular Rehabilitation and Aerobic Training Program to Address Persistent Post-Concussion Symptoms.](#)
- [Branched-chain amino acids administration suppresses endurance exercise-related activation of ubiquitin proteasome signaling in trained human skeletal muscle.](#)
- [A Minimal Contact Diet and Physical Activity Intervention for White-Collar Workers.](#)
- [Exploratory outcome assessment of Qigong/Tai Chi Easy on breast cancer survivors.](#)
- [Effect of an early supervised rehabilitation programme compared with home-based exercise after temporomandibular joint condylar discopathy: a randomized controlled trial.](#)
- [Secular trends and correlates of physical activity: The Tromsø Study 1979-2008.](#)

- [Impact of stretching on the performance and injury risk of long-distance runners.](#)
- [Health benefits of aerobic training programs in adults aged 70 and over: a systematic review.](#)
- [Pedometer Step Count Targets During Pulmonary Rehabilitation in COPD: A Randomized Controlled Trial.](#)
- [Marathon Race Affects Neutrophil Surface Molecules: Role of Inflammatory Mediators.](#)
- [Effects of Short-Term Exercise Interventions on Behavioral and Psychological Symptoms in Patients with Dementia: A Systematic Review.](#)
- [A 24-Week Multi-Modality Exercise Program Improves Executive Control in Older Adults with a Self-Reported Cognitive Complaint: Evidence from the Antisaccade Task.](#)
- [Individual Differences in Diurnal Preference and Time-of-Exercise Interact to Predict Exercise Frequency.](#)
- [Kinematics and muscle activation patterns during a maximal voluntary rate activity in healthy elderly and young adults.](#)
- [Exercise training improves exercise capacity and quality of life after transcatheter aortic valve implantation: A randomized pilot trial.](#)
- [Physical Activity and Cognition: A Mediating Role of Efficient Sleep.](#)
- [Muscle activation during resistance exercise at 70% and 90% 1RM in resistance-trained men.](#)
- [Effects of exercise intervention in breast cancer patients: is mobile health \(mHealth\) with pedometer more effective than conventional program using brochure?](#)
- [In 6- to 8-year-old children, cardiorespiratory fitness moderates the relationship between severity of life events and health-related quality of life.](#)
- [A mixed-method study of the efficacy of physical activity consultation as an adjunct to standard smoking cessation treatment among male smokers in Malaysia.](#)
- [Adaptations of Prefrontal Brain Activity, Executive Functions, and Gait in Healthy Elderly Following Exergame and Balance Training: A Randomized-Controlled Study.](#)
- [Coherence between self-reported and objectively measured physical activity in patients with chronic obstructive lung disease: a systematic review.](#)
- [Metabolic adaptations in skeletal muscle after 84 days bed rest with and without concurrent flywheel resistance exercise.](#)
- [Influence of the day care, home and neighbourhood environment on young children's physical activity and health: protocol for the PLAYCE observational study.](#)
- [Ottawa Panel evidence-based clinical practice guidelines for structured physical activity in the management of juvenile idiopathic arthritis.](#)
- [Changes in Physical Activity, Sedentary Time, and Risk of Falling: The Women's Health Initiative Observational Study.](#)
- [To dance or not to dance? A comparison of balance, physical fitness and quality of life in older Irish set dancers and age-matched controls.](#)
- [Measuring moderate-intensity walking in older adults using the ActiGraph accelerometer.](#)
- [Abdominal Adiposity, Not Cardiorespiratory Fitness, Mediates the Exercise-Induced Change in Insulin Sensitivity in Older Adults.](#)
- [Hippocampal Response to a 24-Month Physical Activity Intervention in Sedentary Older Adults.](#)
- [Effects of pre-exhaustion on the patterns of muscular activity in the flat bench press.](#)
- [Skeletal muscle fatigability and myosin heavy chain fiber type in resistance trained men.](#)
- [Exercise-Induced Hypoalgesia Is Not Influenced by Physical Activity Type and Amount.](#)
- [Endogenous Modulation of Trkb Signaling by Treadmill Exercise After Peripheral Nerve Injury.](#)
- [Personalized Activity Intelligence \(PAI\) for Prevention of Cardiovascular Disease and Promotion of Physical Activity.](#)
- [Natural Approaches in Diabetes Management: A Review of Diet, Exercise, and Natural Products.](#)
- [Resistance training interventions across the cancer control continuum: a systematic review of the implementation of resistance training principles.](#)
- [Concurrent aerobic plus resistance exercise versus aerobic exercise alone to improve health outcomes in paediatric obesity: a systematic review and meta-analysis.](#)

- Development and Evaluation of Sports Concussion Prevention Strategies [RFA-CE-17-002](#) from Centers for Disease Control and Prevention
- Rehabilitation Research Career Development Programs (K12; [RFA-HD-17-021](#)) *Eunice Kennedy Shriver* National Institute of Child Health and Human Development.
- BRAIN Initiative: Research Career Enhancement Award for Investigators to Build Skills in a Cross-Disciplinary Area (K18; [RFA-DA-17-022](#))

In the News

- [NIH Awards Aim to Understand Molecular Changes During Physical Activity](#)
- [Tai Chi and Your Health](#)
- [Keep It Moving](#)
- [The Power of Simple Life Changes to Prevent Heart Disease](#)
- [Exercise May Be Real Medicine for Parkinson's Disease](#)