

October 25, 2018

RE: Request for Comments: NIH National Institute of Arthritis and Musculoskeletal and Skin Diseases Strategic Plan for FYs 2020-2024

Cindy Caughman, M.P.H.
Chief, Science Policy and Planning Branch
National Institute of Arthritis and Musculoskeletal and Skin Diseases

Submitted electronically at grants.nih.gov

Dear Ms. Caughman,

The Defeat Malnutrition Today coalition appreciates the opportunity to comment on the priorities to inform the development of the NIH National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) Strategic Plan for Fiscal Years (FYs) 2020-2024.

Defeat Malnutrition Today is a coalition with over 80 members who are committed to defeating older adult malnutrition across the continuum of care. This is a diverse alliance of community, healthy aging, nutrition, advocacy, health care professional, faith-based, and private sector stakeholders and organizations who share the common goals of achieving the recognition of malnutrition as a key indicator and vital sign of health risk for older adults and working to achieve a greater focus on malnutrition screening, diagnosis, and intervention through regulatory and/or legislative change across the nation's health care system.

With the number of adults aged 65 years and older expected to reach 74 million in the U.S. by 2030, there is an urgency to secure the future of "healthy aging," with research that advances identification and treatment of individuals who have arthritis, musculoskeletal, muscle, skin and bone disorders and diseases and who are malnourished or at-risk for malnutrition.

Lifestyle advances that have successfully contributed to increased longevity have also brought opportunities for good nutrition to help maintain functionality and reduce mobility-disability and dependency in older adults.

Our detailed comments and recommendations on the Request for Information are below.

1. What research opportunities in the *NIAMS Long-Range Plan for Fiscal Years (FY) 2015-2019* plan should be modified because of progress over the past five years?

Recommendation: Integrate Nutrition into disease prevention and health promotion clinical research strategies for arthritis, musculoskeletal, muscle and bone disorders and diseases in the FYs 2020-2024 Strategic Plan.

- Define the impact of nutritional status (e.g., vitamin D levels, protein intake) on arthritis, musculoskeletal, muscle, skin and bone diseases and disorders
- Develop and test strategies to promote musculoskeletal, muscle, skin and bone health by improving nutritional status on a population level.

We commend NIAMS for integrating disease prevention and health promotion strategies into the 2015-2019 Long-Range Plan and for recognizing the value of nutrition in maintaining wellness in healthy populations and enhancing the well-being of individuals with bone disorders or diseases. We recommend that this next Long-Range Plan integrate nutrition into all disease and tissue specific topics.

It is imperative that we advance research “to promote health, prevent disease, maintain functionality and meet nutrient needs” for those individuals who have been diagnosed with arthritis, musculoskeletal, bone, skin, and muscle-related disorders and diseases. Malnutrition, particularly the lack of adequate protein, calories, and other nutrients needed for tissue maintenance or repair, has been shown to be associated with poor health outcomes, frailty and disability, and increased healthcare costs. Importantly, malnutrition is a significant problem for both underweight and overweight or obese individuals due to loss of lean body mass.

As identified in the Defeat Malnutrition Today’s [National Blueprint: Achieving Quality Malnutrition Care for Older Adults](#), up to one out of two older Americans is at risk for malnutrition, yet there is a gap in malnutrition care for older adults. A 2017 Administration for Community Living malnutrition issue brief summarized “...studies document a 30% decrease in food intake in healthy, community dwelling adults between the ages of 20 and 80. In addition, many studies document undernutrition among older adults. Those at greatest risk of undernutrition are older women, minorities, and people who are poor or live in rural areas. Being age 75+ is an independent risk factor for poor nutrition.” Further, food insecurity is a common risk factor for malnutrition; in community settings more than 1 in 11 older adults struggle with food insecurity and face the threat of hunger.

The Defeat Malnutrition Today’s National Blueprint also explains that changes commonly associated with aging, such as loss of appetite, limited ability to chew or swallow, and use of multiple medications can impact diet and nutrition. These and other age- related factors can increase the risk for malnutrition in older adults. Some older adults are not able to fully meet their nutrition needs with food alone. For them,

malnutrition therapies such as oral nutrition supplements become an important intervention. Use of oral nutrition supplements prescribed by a registered dietitian nutritionist or other clinically qualified nutrition professional has been shown to help improve health outcomes in malnourished patients with chronic disease and help improve strength outcomes in malnourished older adults with sarcopenia.

2. What emerging research needs and opportunities should be added to the plan?

Recommendation: “Establishment of disease recognition and diagnostic criteria for Sarcopenia” is an emerging research need and opportunity. Integrate sarcopenia research into “Disease and Tissue-Specific Topics” in the FYs 2020-2024 Strategic Plan.

Sarcopenia is defined as the loss of skeletal muscle mass and strength with increased age, resulting in weakness, limited mobility, and increased susceptibility to injury.

Sarcopenia is estimated to affect up to a third of individuals over the age of 60 with numerous risk factors that are associated with muscle loss associated with aging, such as lack of exercise, decrease in muscle growth, or changes in nerves supplying muscles. Low muscle mass is associated with increased falls, medical complications, length of hospital stay and loss of independence. In particular, malnutrition, frailty, muscle wasting, and sarcopenia are common among older adults, and are chronic problems that threaten the healthy life expectancy.

New CDC ICD-10-CM Code Assigned to Sarcopenia

Recognition of sarcopenia as a disease needs to have highest priority, with emphasis on basic research and accumulation of clinical evidence.

Aging in Motion (AIM), a coalition of organizations working to advance research and treatment on sarcopenia, submitted a proposal for a code to the ICD-10 Coordination and Maintenance Committee, Centers for Disease Control and Prevention (CDC) in July 2014. As a result, since the last NIAMS long-range plan was developed, the CDC has established an ICD- 10-CM (Clinical Modification) code for sarcopenia. M62.84, the new 2017 ICD-10-CM code, became effective on October 1, 2016. The establishment of disease recognition and diagnostic criteria is the basis for research, translation, and clinical efficacy of various treatments, rehabilitation, and prevention measures.¹

As noted above, sarcopenia may result in serious health outcomes in older adults. Muscle weakness may lead to falls, which can cause fractures and other serious injuries. Loss of muscle function is associated with slower walking speed. Decreased walking speed has been associated with a higher risk of mortality in population studies of older

¹ Ann Geriatr Med Res 2016; 20(4): 167; Sarcopenia: An Emerging Giant Greater than Osteoporosis

adults, especially those over age 75. Sarcopenia can also lead to disability and loss of individuals' ability to care for themselves.

Maintaining functionality is critical to healthy aging. Prevention, treatment, and rehabilitation of malnutrition and sarcopenia have become a major concern in health care with a rapidly aging population. Good nutrition and supplementation have been shown to improve muscle function, strength, and size; thus, advancing research in this area will improve the lives and preserve the independence of Americans as they grow older.

3. What cross-cutting scientific themes (e.g., pain, regenerative medicine) or research-related themes (e.g., innovation) that are common to all, or most, of the disease and tissue-specific topics (systemic rheumatic and autoimmune diseases, skin biology and diseases, bone biology and diseases, joint biology and diseases and orthopaedics, and muscle biology and diseases) within the NIAMS mission should be included in the plan?

Recommendation: Nutrition status and malnutrition are research related themes that are common to most of the disease and tissue-specific topics.

- Explore what modifications to nutrition and/or dietary patterns are effective in preventing or reversing declines in muscle mass, bone density, and tissue regeneration.

Older adults may have different nutritional requirements than the average adult population, for example they may have increased protein needs to help maintain muscle mass and prevent sarcopenia and also the quality and timing of protein intake can be important. In addition, as explained in the Defeat Malnutrition Today's [National Blueprint: Achieving Quality Malnutrition Care for Older Adults](#), older adults often face barriers, including chronic disease or illness, to choosing the right foods or eating enough of those foods. In its position on Food and Nutrition for Older Adults: Promoting Health and Wellness, the Academy of Nutrition and Dietetics wrote "Health, physiologic, and functional changes associated with the aging process can influence nutrition needs and nutrient intake" and that "To ensure successful aging and minimize the effects of disease and disability, a wide range of flexible dietary recommendations, culturally sensitive food and nutrition services, physical activities, and supportive care tailored to older adults are necessary."

Similarly, the unique nutrition needs of older adults were underscored when a member of the U.S. Senate HELP Committee and a member of the Senate Special Committee on Aging recently wrote a letter asking the U.S. Government Accountability Office to examine ways in which federally funded nutrition programs meet the needs of older adults. Community-based nutrition social services provide an important source of

nutrition for many older adults and should be considered in health promotion and prevention strategies. Seventy-seven percent of congregate and 84 percent of home-delivered meal participants say they eat healthier meals because of Older American Act nutrition programs, and 61 percent of congregate and 93 percent of home-delivered meal recipients say that the meals enable them to continue living in their homes.

Thank you for considering our comments, and please let us know if we can provide you with any further information. You may reach us at info@defeatmalnutrition.today.

Sincerely,

Bob Blancato
National Coordinator
Defeat Malnutrition Today