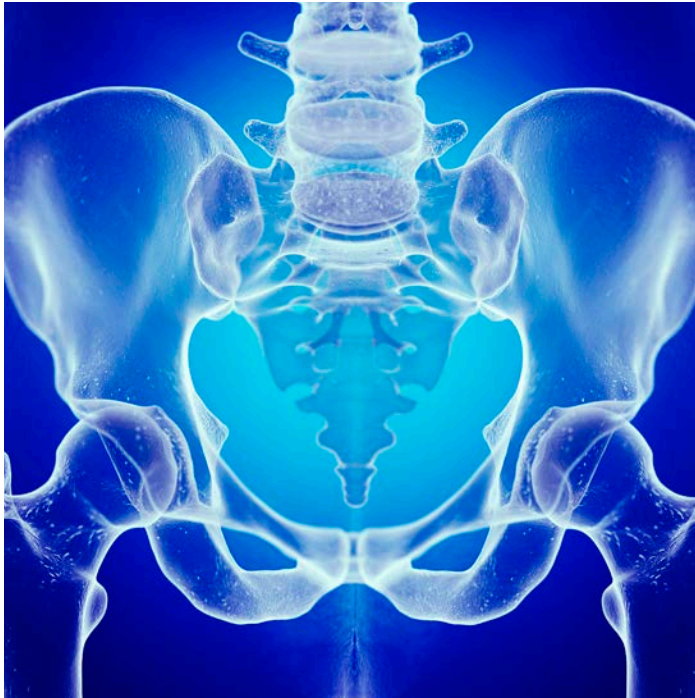


NIAMS

National Institute of Arthritis and
Musculoskeletal and Skin Diseases
About Our Strategic Plan



NIAMS MISSION

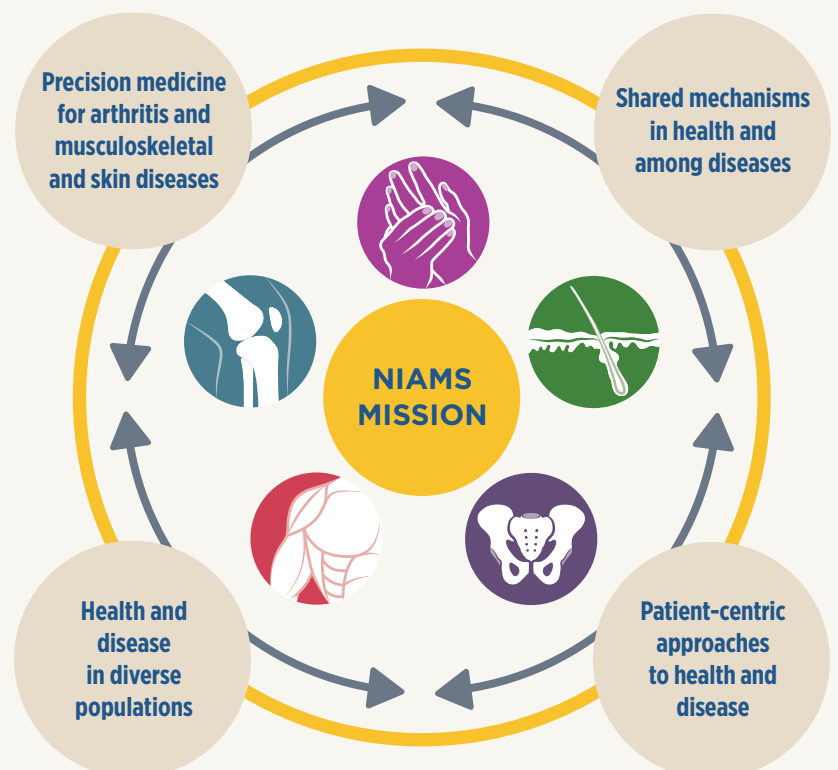
The NIAMS mission is to support research into the causes, treatment, and prevention of arthritis and musculoskeletal and skin diseases; training of basic and clinical scientists to carry out this research; and dissemination of information on research progress in these diseases.

STRATEGIC PLAN GOAL

The goal of the plan is to advance and accelerate research into the causes, treatment, and prevention of arthritis and musculoskeletal and skin diseases. The ultimate goal of these efforts is to develop patient-centered, personalized ways to improve outcomes and thereby “turn discovery into health.”

CROSS-CUTTING THEMES AND RESEARCH AREAS

Many scientific challenges and opportunities within the NIAMS mission are not unique to any one field, disease, or scientific or clinical discipline. Rather, they transcend disease- and tissue-specific boundaries, have broad impact across many diseases and conditions, and can therefore serve as a framework to organize science across the assorted fields within the Institute’s purview. In addition to four cross-cutting themes, the Institute’s research portfolio includes five core areas: Systemic Rheumatic and Autoimmune Diseases; Skin Biology and Diseases; Bone Biology and Diseases; Muscle Biology and Diseases; and Joint Biology, Diseases, and Orthopaedics.



BONE BIOLOGY AND DISEASES RESEARCH

RESEARCH OBJECTIVES

- BONE BIOLOGY, PHYSIOLOGY, AND DEVELOPMENT
- INTEGRATIVE PHYSIOLOGY
- SKELETAL DEVELOPMENT AND HOMEOSTASIS
- GENETICS, GENOMICS, AND EPIGENETICS OF BONE MASS AND FRACTURE RISK
- MECHANISMS OF BONE DISEASES: PRECLINICAL AND TRANSLATIONAL RESEARCH
- THERAPEUTIC MECHANISMS
- IMAGING AND BIOMARKERS OF BONE QUALITY AND FRACTURE RISK
- CLINICAL RESEARCH FOR RARE BONE DISEASES
- CLINICAL RESEARCH FOR OSTEOPOROSIS

For More information

Read the full NIAMS Strategic Plan:

<https://www.niams.nih.gov/about-niams/strategic-plan-fiscal-years-2020-2024>

NIAMS Website: www.niams.nih.gov

Contact NIAMS: NIAMSinfo@mail.nih.gov

PROGRAM SUMMARY

NIAMS supports studies on the control of bone remodeling (bone formation, bone resorption) and mineralization, as well as the effects of hormones, growth factors, and cytokines on bone cells. The Institute has overseen several large epidemiologic cohorts to characterize the natural history of osteoporosis and identify genetic and environmental risk factors that contribute to fracture. NIAMS also supports clinical trials to test the effectiveness of interventions to prevent fractures associated with osteoporosis and other metabolic bone diseases. In addition, the NIAMS Bone Biology and Diseases programs support research on the causes, pathophysiology, and treatment of less common bone diseases, such as osteogenesis imperfecta and Paget's disease of bone, as well as a wide range of developmental disorders of the skeleton, many of which are genetic.

- Bone Biology, Metabolic Bone Disorders, and Osteoporosis Program
- Clinical, Integrative Physiology, and Rare Diseases of Bone Program

PROGRAM HIGHLIGHT

NIH Pathways to Prevention Workshop

In October 2018, NIAMS, the National Institute on Aging, and the NIH Office of Disease Prevention hosted a Pathways to Prevention Workshop on the Appropriate Use of Drug Therapies for Osteoporotic Fracture Prevention to identify research gaps and suggest focus areas that could move the field forward. Strategies for disseminating and implementing workshop findings are being developed by federal agencies to improve public health in FY 2020 and beyond.



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