The Jean Mayer United States Department of Agriculture (USDA) Human Nutrition Research Center on Aging at Tufts University is the largest research center in the world devoted to studying the role of nutrition in the prevention of age-related chronic and infectious diseases.

Named for Jean Mayer, former President of Tufts University and global nutrition leader, the HNRCA is one of only six human nutrition research centers in the United States supported by the Agricultural Research Service (ARS), the intramural research branch of the USDA. Located on the Tufts health sciences campus, the HNRCA is uniquely positioned to contribute to both human nutrition and aging research and the life sciences leadership of the University.

**Structure and Organization**

The HNRCA’s 270 researchers, trainees and staff, support the efforts of 20 research laboratories, each investigating the impact of multiple facets of nutrition on specific health outcomes. The HNRCA’s laboratories are directed by leaders in the nutrition and health fields. The HNRCA also has nine Core Units, six scientific and three non-scientific, which provide technical and administrative support to the research laboratories.

### Research Laboratories

- Antioxidant
- Body Composition
- Bone Metabolism
- Carotenoids and Health
- Cardiovascular Nutrition
- Energy Metabolism
- Lipid Metabolism
- Nutrition and Cancer Biology
- Nutrition, Exercise, Physiology and Sarcopenia
- Nutritional and Genomics
- Nutritional Epidemiology
- Nutritional Immunology
- Neuroscience
- Nutrition and Neurocognition
- Nutrition and Vision
- Obesity Metabolism
- Vascular Biology
- Vitamins and Carcinogenesis
- Vitamin K
- Vitamin Metabolism

### Core Units

- Biostatistics
- Comparative Biology
- Dietary Assessment
- Mass Spectrometry
- Metabolic Research
- Nutrition Evaluation
- Administration
- Scientific Computing
- Physical Plant/Facilities
Research Expertise

The HNRCA’s diverse and expansive research expertise enhances its ability to study complex health outcomes in various areas. To investigate complex conditions, scientists pursue an array of research methods including cellular and molecular studies, animal studies, human metabolic studies, and epidemiological research.

Using different research models allows investigators to study nutrition’s impact on diseases from the cellular level to the population level in order to contribute to dietary recommendations and health policies. The HNRCA’s translational capacity, in combination with its breadth of expertise, allows for collaborative and cross-disciplinary approaches to addressing complex health problems.

HNRCA research has added to preventative nutrition and physical activity solutions for health problems such as

- obesity,
- sarcopenia,
- coronary artery disease,
- cancer,
- infection, and
- neurocognitive impairment.

Pioneering work by HNRCA scientists has advanced the understanding of nutrient bioavailability and nutrient requirements. This research has influenced public health by providing the foundation for establishing nutrition and physical activity policy and guidance such as the Recommended Dietary Allowances and the Dietary Guidelines for Americans.
Publications

The HNRCA is dedicated to communicating its significant findings to the scientific community and the public. In July of 2009, *Times Higher Education* ranked Tufts as the agricultural sciences institution with the greatest global impact based on papers published and citations, which is largely attributable to HNRCA research. HNRCA findings have been cited in papers and articles published in *American Journal of Clinical Nutrition, Cancer, JAMA, Journal of the American Geriatric Society, Journal of Biological Chemistry, Journal of Nutrition, Lancet, Nature, New England Journal of Medicine*, and many other prominent peer-reviewed journals. In fact, HNRCA scientists produced almost 3,000 scientific journal publications between 2000 and April 2010, adding up to one new article every business day.


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