History of the USDA Human Nutrition Research Center on Aging at Tufts University\textsuperscript{1,2}

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Introduction

The Jean Mayer United States Department of Agriculture Human Nutrition Research Center on Aging (HNRCA) at Tufts University, although quite a mouthful, is aptly named because it has contributed substantially to the legacy of Jean Mayer, to the scientific stature of the USDA, and, in Atwater’s tradition, to the Department’s contributions to human nutrition. At the same time, the Center has pioneered in embedding of concepts of aging within the human nutrition and health agenda while elevating the stature of Tufts University with a signature program in nutrition and health science. The establishment of the HNRCA, with its 15 stories of research space on the Health Sciences campus of Tufts University in Boston, with its scientific staff of 300, and with its accrual of >7000 alumni of its studies on human nutrition (thus making it the largest center on nutrition and aging in the world), has a history that is embedded in both domestic and international developments, especially in the decades of the 1960s and 1970s. Those were rich decades in the history of nutrition and nutrition science in this country, and in many ways the establishment of the HNRCA in 1978 was a culmination of some of those events.

To tell the HNRCA story, let me start with a narrative about hunger in America as a backdrop. In the tumultuous decade of the 1960s, one of the most active and productive elements of the U.S. government in nutrition was the work of the Interdepartmental Committee on Nutrition for National Defense, whose history has been well recorded in a previous symposium in these Experimental Biology meetings and published in The Journal of Nutrition (1). For our purposes, it is worth noting that the Interdepartmental Committee was a prominent nutrition survey and research program that evolved during the 1960s from performing nutrition surveys in developing countries to forming the basis for the Ten-State Survey in this country. That survey demonstrated emphatically that poverty and hunger existed in unacceptable dimensions in this country (2), not just in developing nations of the Third World. The report of the Ten-State Survey on Hunger in America forged an important relation between Jean Mayer and the Kennedy brothers, Robert and Edward. Mayer, then a professor in the department of nutrition in Harvard’s School of Public Health, utilized his participation in a National Coalition Against Hunger, which involved 66 million citizens, including labor unions, welfare rights organizations, etc., to persuade President Richard Nixon, who had marginally defeated Hubert Humphrey in the 1968 election, to improve his credentials with domestic liberal and social causes by hosting the first (and to this day only) White House Conference on Nutrition in 1969. Mayer was seconded to the government to chair and plan that conference, which arguably has had a greater impact on the nutritional policy history of this country than any other single event. Out of that conference came such social programs as Food Stamps, a sharp enlargement of the Women’s, Infants’ and Children’s Nutrition Program, nutrition labeling with a sharply increased attention to the relation between nutrition and chronic disease, such as heart disease, and an increased realization that nutrition research could play a major role in health sciences and disease prevention as well as in the fight against poverty and hunger.

A major vehicle for the translation of the some of the 800 recommendations of the 1969 White House Conference on Nutrition was the Senate Select Committee on Nutrition and National Needs, which was chaired by Senator George McGovern (D-SD), with a minority cochair Senator Robert Dole (R-KS) (both would later run for president of the United States) (3). This was a time of escalating interest in nutrition and disease, leading to some consideration of additional means of enlarging the nutrition science and research capability of the U.S. government. At that time, nutrition research in the U.S. government was represented by the Beltsville Human Nutrition Laboratory within the USDA, a small intramural program in human nutrition research at the NIH, largely in the National Institute of Arthritis and Metabolic Diseases, and small laboratories in the Food Division of the FDA. The USDA had responded to mandates from Congress to establish a second Human Nutrition Research Center in the wheat-growing heartland, and that became the laboratory in Grand Forks, North Dakota. Harold Sandstead, its first director, can also take credit for later having advised Jean Mayer on some of the pathways and mechanisms that could lead to enlargement of the USDA nutrition centers program.

Because interest in human nutrition science and its potential benefits to human health was still very strong, especially in the Senate Select Committee, they produced a report on national nutrition goals (4), which roiled the food and nutrition policy landscape (a history worthy of its own symposium), and has been succeeded by the Dietary Guidelines for Americans and the Food Guide Pyramid.

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Let me return to some personalities in addition to Senators McGovern, Dole, and Kennedy (D-MA), who would play important roles in the evolution and reorganization of the concept of an HNRCA. The two enthusiastic and idealistic staff members of the Senate Select Committee were a young lawyer, Jerry Cassidy, and a young political activist, Ken Schlossberg. Schlossberg was from Massachusetts, and both he and Cassidy had become familiar with Jean Mayer and his efforts with the White House Conference and his insistent advice to the Senate Select Committee. The increasingly powerful Speaker of the House at the time was also from Massachusetts, Thomas P. (Tip) O’Neill, who is widely quoted as having coined the phrase “all politics is local.” The stars were in alignment in the Democratic Carter administration when Claude Pepper, then the most senior senator from Florida, with Senator Hubert Humphrey (D-MN) championed the concerns of the elderly, including research on aging. This alignment included McGovern, advised by another Massachusetts nutrition scientist seconded to the USDA Science and Education Administration. Jean Mayer would become President of Tufts University in 1976 and become the first client of the legislative advisory company formed by Schlossberg and Cassidy after they left government employ. This alignment could persuade Speaker O’Neill and the sympathetic Senators that another Center for Human Nutrition Research should be established and that it should be mandated to be built in Boston and have a theme relating to nutrition and aging (and, by implication, chronic disease). This was translated into legislative language in the 1977 Food and Agriculture Act (5).

In the Food and Agriculture Act of 1977 (5), Congress directed the Secretary of Agriculture to establish a comprehensive human nutrition research program and to study the potential cost and need for new research on nutrition and aging. The act states in part,

Congress hereby finds that there is evidence of a relationship between nutrition and many of the leading causes of death in the U.S.; that improved nutrition is an integral component of preventive health care; that there is a serious need for research on the effects of diet and degenerative diseases and related disorders.

The Agriculture Appropriations Bill, passed later in 1977 (6), instructed the USDA to establish an "adult human nutrition research facility at Tufts University in Massachusetts" and provided planning funds for that facility. Facility and programmatic planning had been initiated by representatives of the USDA and Tufts University. Stanley Gershoff, who had come from Harvard with Mayer to be head of a Tufts Institute of Nutrition, led a team to write the proposal.

In 1978, Congress committed funds for construction and placed the Center under the direction of the newly created Science and Education Administration of USDA. The conferees stipulated in their agreement that the Center's programs complemented those of the National Institutes of Health and should be conducted in close collaboration with the National Institute on Aging. On August 1, 1979, the Cooperative Agreement between Tufts University and the USDA was signed, and on October 23 of the same year, the National Institute on Aging and the USDA signed a Memorandum of Understanding detailing their mutual interest in the HNRCA at Tufts University. Tufts University donated land from its Boston campus for the HNRCA.

Before the passage of the Act, Secretaries Califano (HEW) and Bergland (USDA) had signed an agreement for sharing their nutrition research responsibilities. It was expected that the management of HNRCA would be an executive committee consisting of the two Secretaries and the president of Tufts or their designees and that the director of HNRCA would report to the executive committee. In reality, the relation would be between Tufts and the USDA.

There would be many things that were unique about this new Center. It would be run by cooperative agreement with the University, much along the lines of the Jet Propulsion Laboratory at Cal Tech in California. At some point, there had been a possibility that this laboratory would be affiliated with Boston University, Harvard, MIT, and Tufts, but in the end, the decision was made to accept the donation of land on the Health Sciences campus of Tufts University in downtown Boston to build the $30 million 15-story building. Groundbreaking was celebrated on December 14, 1979. Therein lies another unique feature of HNRCA: its establishment on a health sciences campus, thus declaring unequivocally that the orientation would be toward human nutrition and the human health sciences. Much of the previous research in nutrition had taken place on agriculture campuses of colleges and universities with Hatch Act funding. The other unique feature of this new Center is that it would have a human lifespan theme: that of nutrition and aging and the nutritional needs of a growing aging population. The Grand Forks laboratory was established with the theme of trace mineral research. Shortly thereafter, the Children's Human Nutrition Research Laboratory in Houston would also be chartered with an earlier life cycle theme. Stanley Gershoff was the principal investigator of this center grant through USDA. The scientific stature of this new Center was sealed with the appointment of the eminent scientist in protein metabolism, Hamish Munro, who moved from MIT to be the first Director of HNRCA. Scientific programs began in rental space in 1979–1980, the first scientists were recruited at that time, and the building opened to considerable fanfare and pride in 1982. The rest, as they say, is history.

Other articles in this supplement include references (7–11).

Literature Cited