

## 2024 NIH Reorganization Proposal Summary of Healthspan Action Coalition's Response

In June 2024, the Chair of the U.S. House of Representatives Energy and Commerce Committee, Representative Cathy McMorris Rodgers, released a discussion document called "*Reforming the National Institutes of Health: Framework for Discussion*." The *Framework* invited all stakeholders to submit comments and suggestions regarding it by August 16. In response, the Healthspan Action Coalition submitted a 25-page letter, a copy of which is posted here on the Coalition's website.

The National Institutes of Health, with its anchors dating back to the 1798 Act for the Relief of Sick and Disabled Seamen and the creation of the Hygienic Laboratory in 1887, has for decades led the world in funding and supporting biomedical research. Historically, Congress has from time to time significantly reformed and reorganized NIH and/or significantly increased appropriations to NIH. Depending on the definition of "significance", the median time between such significant legislative actions is 10 years. It has now been 15 years since the last such "major" legislative action relating to NIH, *viz.*, the increase in funding under the American Recovery and Reinvestment Act of 2009. So, purely on a statistical basis, a significant reform and/or reorganization of NIH is overdue.

The *Framework* presents a number of suggestions for reorganizing NIH, to which HSAC responded in detail. This summary highlights several of the major recommendations in the *Framework* and the Coalition's response to them.

The Coalition's response letter begins by delineating how the well-known terms "longevity" and "life span" differ from the lesser-known term "healthspan". While longevity and life span refer to the absolute length of a person's life as a biological matter with less attention to quality of life, "healthspan" refers to the period of a person's life spent in good health, free from chronic diseases and disabilities. Omitting the impact of the opioid crisis and the COVID-19 pandemic, life span has generally been extended in the last several decades in the United States and other economically developed nations, but on average the last 9 to 10 years of life are plagued by poor health and functional disabilities. Healthspan policy seeks to close that gap by focusing on healthy aging and improved quality of life in the later years of life.

Central to the Coalition's response to the *Framework* is its suggestion that considerations of healthspan should be inserted into the nucleus of research and funding across the institutes and centers ("ICs") comprising NIH. Indeed, the *Framework* calls for the adoption of a "holistic life stage" approach in all NIH-funded research initiatives, and we emphasize the importance of this consideration of healthspan in this new philosophical approach. We concur that it will be beneficial to combine this new emphasis with proposed research clusters to promote cross-fertilization among the multiple disciplines involved in healthspan science: biology, medicine, public health, and the social sciences. (To this list there should be added other scientific

disciplines, such as chemistry, physics, mathematics, and computational science.) Such clusters, we believe, could lessen the siloing of research and speed the delivery of new therapies aimed at extending the human healthspan.

In response to the call for a holistic life stage perspective, we call for the inclusion in all NIH grant applications specific questions about how a proposed line of research supports the overarching goal of extending the healthspan. Consideration of this issue should be included in the grant-review process, and this is confluent with the *Framework's* stated desire for a more whole-life approach to disease research.

One of the *Framework's* more notable features is the suggested reduction of NIH ICs from 27 to 15, with the aim of limiting redundancy and promoting more collaboration among the various disciplines to work together to facilitate the translation of research into new therapies. The *Framework* proposes the elimination of the National Institute on Aging, which has historically been the main funder of Alzheimer's Disease, Parkinson's disease, and other dementia-related research, as well as other non-dementia longevity-related research, with all of this research being key to extending healthspan. The *Framework* proposes that a new organization, the National Institute on Dementia, replace the NIA. The Coalition's response suggests that this reorganization be accompanied by express steps to port NIA's expertise on non-dementia-related longevity research to other IC's that have also historically funded such research.

The Coalition offers suggests that reforms of NIH should emphasize the role of digital intelligence (aka "artificial intelligence" or "AI") in increasing organizational efficiency and optimized decision-making. We also believe that digital intelligence technologies could speed discoveries through the research and clinical trial stages and deliver new therapies to patients more quickly. We suggest that NIH be authorized and directed to harness the ability of generative artificial intelligence (GAI) based on Large Language Models that have been trained on relevant datasets to identify trends, predict outcomes and optimize research and development strategies for various diseases and disorders. NIH currently prohibits peer reviewers from using GAI, and we believe this policy should be updated with a more comprehensive understanding of the merits of targeted and judicious use of this technology.

Furthermore, the Coalition's response letter offers the following recommendations:

- Employ **matrix organization, thematic research, and modular structures** that allow for a more dynamic organizational approach to continually adapt to new and emerging scientific and human resource challenges.
- Establish **regional research hubs**, geographical centers that focus on specific health issues prevalent in their region. These hubs could address health disparities and ensure that research is relevant to local populations.

This summary highlights several important points in HSAC's response to the *Framework*, and is by no means exhaustive. The full text of the Coalition's response can be accessed through the following link: [link to full text of HSAC letter]