

Good morning.

My name is Dr. Alison Moore. I am a geriatrician and Chief of the Division of Geriatrics, Gerontology, and Palliative Care at the University of California, San Diego.

I am honored to comment on behalf of the American Geriatrics Society or AGS, where I serve on the Board of Directors. AGS members work to improve health, independence, and quality of life of all older adults and ensure their access to high-quality care free of discrimination and bias. We would like to thank Dr. Richard Hodes and the NIA for their commitment to scientific advancements to enhance the health, safety, and independence of older Americans.

We support the President's proposal to establish ARPA-H. Federal investments in research have led to discoveries that have helped increase lifespan and delay onset of chronic diseases. Despite these advances, over 65 percent of Medicare beneficiaries live with two or more chronic conditions and more than 35 percent have four or more, often experiencing changes in physical or cognitive function that negatively affect their daily activities, independence, and ability to age in place.

To be successful, ARPA-H must address age as a shared risk factor for all diseases and infuse attention to two key principles across the research it funds:

- First, that fundamental aging mechanisms contribute to the conditions that drive the bulk of morbidity, mortality, and health expenditures across the lifespan.
- Second, that aging begins at conception and fundamental aging processes can contribute to disabling conditions and chronic diseases, even in children.

Further, ARPA-H must also ensure that the research it supports includes: (1) individuals with multimorbidity; (2) diversity with no upper age limits; (3) outcomes aligning with what matters to patients; and (4) aging as a shared risk factor for multiple chronic diseases. Without attention to these issues, broad dissemination of new therapies and technologies that are useful, safe, and effective for all of us as we age will be jeopardized.

A strong partnership between NIA and ARPA-H that is nimble and undeterred by possible failure would accelerate research in geroscience and gerontechnology.

- **Geroscience**, or the study of biological mechanisms that drive aging and disease, focuses on developing interventions to delay the onset of multiple chronic diseases and conditions such as arthritis, Alzheimer's disease, and frailty. Interventions that slow aging processes have the potential to dramatically lower health care costs while significantly improving quality of life. Currently, there are eight types of interventions

that target fundamental aging processes, such as senolytic drugs, some of which delay, prevent, or alleviate over 40 conditions across the age range in animal models and are now or will be in early phase clinical trials.

- **Gerontechnology** seeks technological solutions that optimize independence in older adults. Smartphones, wearables, robots, exoskeletons, and a myriad of other technologies can enhance communication, reduce isolation, improve physical activity, support cognition, improve access to healthcare, and assist with personal caregiving needs. Technologies, such as those Dr. Hodes and Dr. Carter mentioned, also have promise to identify digital phenotypes of morbidity and disability. Gerontechnology integrates clinicians, engineers, computer scientists, and gerontologists with older adults and their caregivers. This maximizes the likelihood that the technology developed is useful, effective, safe, and preserves privacy for a diversity of older adults.

Finally, to be truly successful, AGS recommends additional investments in:

- Network capacity so that investigators can work collaboratively using the same data across institutions.
- Developing the next generation of aging researchers by supporting geriatrics health professionals to embark on careers in research; developing geroscientists; and ensuring that all researchers have the necessary training for including complex older adults in research.

Thank you for inviting the American Geriatrics Society to present today. We see the proposed investment in ARPA-H as an inflection point to ensure that research leads to innovations that support all of us as we age.