



If you think research is expensive, try disease.

#### **INVESTMENT IN RESEARCH SAVES LIVES AND MONEY**

# Aging

Many changes which come with aging are harmless, such as graying hair, but other changes can increase a person's risk of developing chronic disease.<sup>1</sup> As Americans live longer, diseases associated with aging like Alzheimer's, heart disease, type II diabetes, arthritis, and cancer are becoming more common.<sup>1</sup> Most Americans turning 65 will, at some point in their lives, require long-term care. The need for both informal and formal caregivers will increase along with the aging population. These caregivers are at increased risk of stress, depression, and poor attention to their own health.<sup>2</sup> Researchers are making progress in understanding how to slow aging, diminish the burden of age-associated diseases, and increase the portion of life spent in good health.<sup>1</sup>

#### TODAY

More than 1

in  $\mathbf{6}$  people in the U.S. is 65 or older.<sup>3</sup> Americans who live to age 65 have an average life expectancy of an additional **19.5** 

## 41.8 million

Americans have provided unpaid care to an adult age 50 or older in the last 12 months.<sup>5</sup>

### **Research Delivers Solutions**

years. 4

Aging research encompasses everything from artificial intelligence and computational biology to neurodegeneration and cancer. Here we outline some specific research advances.

Increases in lifespan are not always accompanied by increases in **healthspan** — the number of years lived in good health. While life expectancy has increased around the globe, gains in healthspan lag behind.<sup>9</sup> Researchers have used experimental models to identify 59 genes that might modulate the aging process. These results suggest potential targets for therapeutics that enhance healthy aging and extend the healthspan.<sup>10</sup>

In a meta-analysis, researchers found that **obesity and aging** may be caused by similar mechanisms and, in turn, promote similar molecular and cellular changes. Both obesity and aging are associated with a weakened immune system, declines in cognition, impaired mobility, and hypertension. Viewing obesity as an aging disease may help develop treatments for both.<sup>11</sup>

Humans **microbiomes** – the communities of microbes that live on and around us impact our health and change with age. Researchers created a machine learning algorithm that estimates chronological age from microbiome samples gathered from the skin, mouth, and gut. In the future, this model could correlate microbiome composition with clinical conditions. These results help researchers study the role microbes play in aging and age-related diseases. The model will also allow researchers to test potential therapies.<sup>12</sup>

## со**эт** \$11,506:

Per person health care expenditures for the 65 and older population in 2017, which is 5x higher than the spending per child.<sup>6</sup>

# \$92,376:

The annual cost for a private room in a nursing home.<sup>7</sup> Costs for long term care like this are often not covered by Medicare.<sup>8</sup>

How important is it for the President and Congress to assign a high priority to ensuring faster medical progress?



Source: A Research!America poll of U.S. adults conducted in partnership with Zogby Analytics in January 2020

## Aging

## Then. Now. Imagine.

#### THEN

In 1900, just over 3 million Americans, or 4.1% of the U.S. population, were 65 and older.  $^{\rm 13}$ 

#### NOW

In 2020, the Census estimates that over 55 million Americans, or 16.8% of the population will be 65 and older.<sup>13</sup> In 2050, the Census estimates that over 88.5 million Americans, or 20% of the population, will be 65 and older.<sup>14</sup>

#### IMAGINE

A nation where healthy aging is the norm.

## **Work and Eldercare**

The average U.S. caregiver is a 49-year-old woman who works and spends nearly 20 hours per week — the equivalent of another part time job — providing unpaid care to her parents for nearly five years. Low-income workers, minorities, and women are more likely to reduce their work hours or leave the workforce because of their caregiving role. Men age 50 and older who leave the workforce to care for a parent lose approximately \$284,000 in wages, while women lose approximately \$324,000. Evidence suggests that assuming the role of caregiver for aging parents in midlife may substantially increase a woman's risk of living in poverty in old age.<sup>15</sup>

#### Percent of Population Aged 65+ by State, 2018



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