



2016 Research Highlights

With NIH support, scientists across the United States and the world conduct wide-ranging research to improve the health of our nation. Groundbreaking NIH-funded research often receives top scientific honors. In 2016, these honors included 1 NIH-supported Nobel Prize winner and 5 NIH-funded recipients of top awards from the Lasker Foundation. Here's just a small sampling of the research accomplishments made by NIH-supported scientists in 2016. For more health and medical research findings from NIH, visit [www.nih.gov](#).

Clinical Advances

Prevention, Diagnosis, and Treatment of Human Disease

[Blood pressure management for seniors](#)

High blood pressure, or hypertension, affects 1 in 3 American adults. In a large clinical study, researchers found that seniors who aimed for a target systolic blood pressure level lower than commonly recommended (less than 120 mm Hg compared to 140 mm Hg) had a reduced risk of cardiovascular disease and death. The findings will help older adults with hypertension and their doctors make more informed decisions about blood pressure goals.

[Islet transplantation restores blood sugar control in type 1 diabetes](#)





Promising Medical Advances

Findings with Potential for Enhancing Human Health

Zika research advances quickly

The Zika virus has spread worldwide since 2015, but there are no vaccines or effective treatments. This year, researchers decoded the [structure of the virus](#), providing clues to how it enters human cells. They identified novel ways to inhibit Zika, testing a [human-derived antibody in mice](#) and [screening for promising compounds](#). Five [experimental vaccines](#) were evaluated in monkeys, [with one now being tested in people](#).





Insights from the Lab

Noteworthy Advances in Basic Research

[An expanded map of the human brain](#)

A detailed map of the human brain can reveal its organization, connections and function. Previously generated brain maps have been limited by technology or size. Scientists created a high-resolution map of the human brain and identified 180 distinct areas in each half of the outmost layer, the cerebral cortex. The study provides new insights and tools for understanding the roles of specialized brain regions in health and disease.

[Visualizing a cancer drug target at atomic resolution](#)

Determining the 3-D structure of a protein at a fine level of detail is important for drug development. Understanding how the drug and protein interact at an atomic level can allow scientists to design new drugs. Using cryo-electron microscopy, researchers were able to view, in atomic detail, the binding of a potential small molecule drug to a key protein in cancer cells. The results illustrate how the imaging technique can help advance drug development.

[Congenital vision reveals insulin insights](#)

Many people with diabetes rely on injections of synthetic insulin to keep blood

