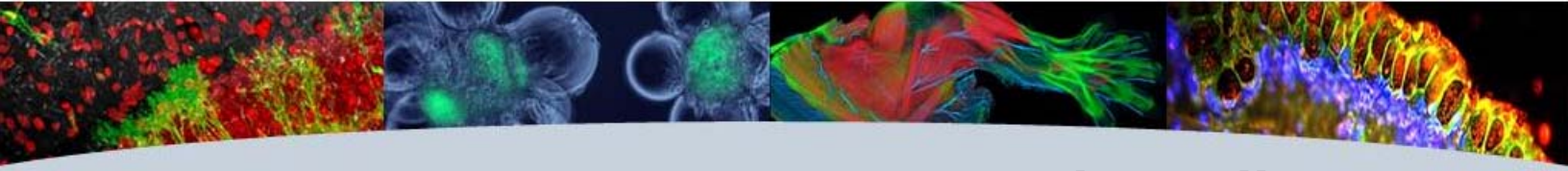


Sequestration Cuts Biomedical & Biological Research

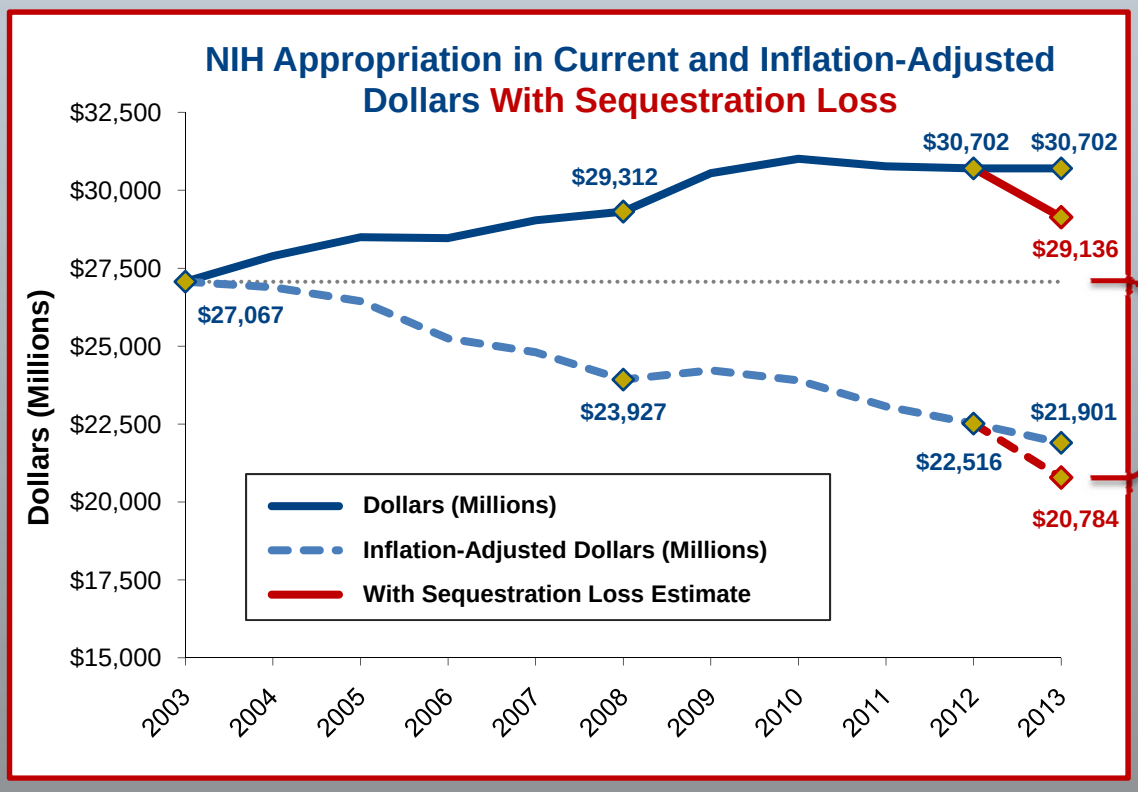
Federally funded biological research:

- **Improves health**
- **Increases innovation**
- **Trains the next generation of scientists**
- **Strengthens the economy**

The federal government funds research in every state through agencies and programs such as the National Institutes of Health (NIH), the National Science Foundation (NSF), the Department of Energy Office of Science (DOE SC), and the United States Department of Agriculture (USDA) Agriculture and Food Research Initiative (AFRI).

"I worry desperately this means we will lose a generation of young scientists."

Francis Collins, MD, PhD, Director of the National Institutes of Health (NIH)



Since 2003, when the doubling of the NIH budget was completed, NIH's capacity to fund biomedical research has declined due to a combination of flat funding and inflation.

With sequestration, this reduction will reach 23 percent, a nearly one quarter loss in capacity. What discoveries will be delayed or perhaps not even happen?

"Last year, my research group's grant proposal to investigate new therapies for age-related diseases received a very high score but went unfunded due to budget uncertainty. We resubmitted it this year, receiving an even higher score, but the funding decision has been delayed, again, due to budget uncertainty. If we do not get funding, the $750,000 invested so far to develop this line of inquiry will be lost - the project simply cannot be put on hold indefinitely. Even if we do receive funding, there are scientists across the country who will not be so fortunate, and their promising research will go unsupported. 2013 is a bad year to have a good idea."

Laura Niedernhofer, MD, PhD, Associate Professor, Department of Metabolism & Aging, Scripps Florida

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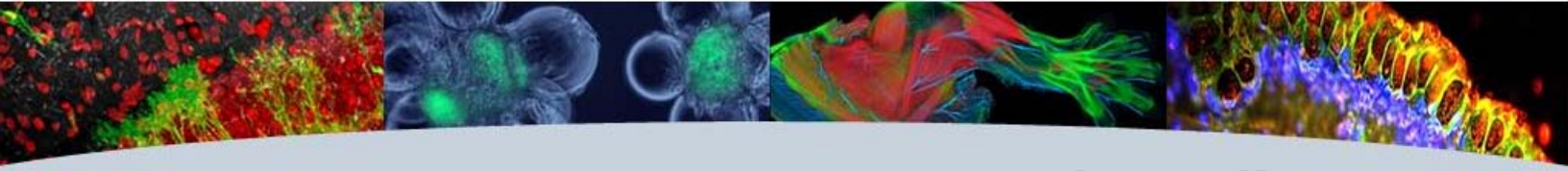

Sequestration Cuts Biomedical & Biological Research

Sequestration means fewer research projects will be funded. These represent just a few areas of research that will be impacted:

- Cancer
- New and existing infectious diseases
- Diabetes
- Crop diseases, yield, and nutrition
- Biosecurity
- Neurological diseases and dementia
- Environmental protection
- Public health and surveillance
- Vaccine development

Estimated State Losses in NIH Funding Due to Sequestration*

State	Loss Estimate	State	Loss Estimate	State	Loss Estimate
Alabama	$13,692,814	Kentucky	$7,969,785	North Dakota	$893,718
Alaska	$468,767	Louisiana	$8,508,500	Ohio	$36,260,332
Arizona	$9,375,106	Maine	$3,820,308	Oklahoma	$4,205,436
Arkansas	$3,192,004	Maryland	$86,071,457	Oregon	$15,481,583
California	$180,299,472	Massachusetts	$127,901,382	Pennsylvania	$74,208,821
Colorado	$16,337,386	Michigan	$33,428,137	Rhode Island	$7,793,733
Connecticut	$24,455,774	Minnesota	$25,181,639	South Carolina	$7,242,808
Delaware	$1,558,531	Mississippi	$1,726,757	South Dakota	$948,227
District of Columbia	$10,320,570	Missouri	$24,342,159	Tennessee	$24,474,033
Florida	$25,120,342	Montana	$2,025,531	Texas	$54,404,277
Georgia	$23,627,946	Nebraska	$4,291,317	Utah	$8,719,160
Hawaii	$3,095,752	Nevada	$1,049,341	Vermont	$2,680,740
Idaho	$475,955	New Hampshire	$4,510,271	Virginia	$16,944,809
Illinois	$39,738,555	New Jersey	$12,787,122	Washington	$47,225,078
Indiana	$11,024,251	New Mexico	$5,389,968	West Virginia	$966,791
Iowa	$10,081,304	New York	$104,110,487	Wisconsin	$20,530,371
Kansas	$5,398,348	North Carolina	$54,214,655	Wyoming	$315,638

*Loss calculated using FY 2011 NIH funding data (the most recent year with complete state funding data) with a 5.1 percent loss estimate

"The loss of funding under sequestration will halt current and planned research projects at universities in every state, slowing the rate of innovation and progress toward economic recovery."

Joseph R. Haywood, PhD, Assistant Vice President for Regulatory Affairs, Michigan State University

"I think the suddenness of [sequestration] and the depth of it would be a disaster for research, which is not an activity that you can turn on and off from year to year. It's an activity that takes time. The most impacted are the young, new investigator scientists, who are coming into science, and will now abandon the field of science. . . . [W]e are going to maim our innovation capabilities if you do these abrupt deep cuts at NIH. It will impact science for generations to come."

Elias Zerhouni, MD, President of Global R&D at Sanofi and former Director of NIH

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