

April 2017

Ivy League Flunkers

Schools Fail on Federal
Funding Disclosure



WHITE COAT
WASTE
PROJECT

A Joint Report Between:



White Coat Waste Project & Restore Accountability

Ivy League Flunkers

Executive Summary

A first-of-its-kind analysis by Restore Accountability and White Coat Waste Project has documented widespread transparency failures by Ivy League universities receiving more than \$2 billion annually from the National Institutes of Health (NIH). This report demonstrates that 100 percent of these universities' 2016 press releases detailing NIH-funded animal experiments—representing nearly a quarter-billion dollars in taxpayer funds—violated federal law requiring disclosure of government funding details.

A report by



RESTORE
ACCOUNTABILITY



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Introduction

Transparency in government is essential for our leaders to make smart, efficient decisions with American tax dollars. Further, without transparency it would be impossible for taxpayers and Congress to conduct effective oversight over the Federal Government's \$4 trillion annual budget. The formation of oversight groups such as White Coat Waste Project and Restore Accountability prove that holding the Federal Government accountable for its actions certainly has a foothold in the public's priorities.

Since USAspending.gov went live in 2007, access to public records has become easier and the public's quest for transparency has grown. This quest continued with the passage of the Digital Accountability and Transparency Act (DATA Act) of 2014, which has the potential to improve the quality of data that agencies publish on USAspending.gov.¹ While these new legislative breakthroughs and oversight organizations are essential for holding government accountable, we have found that the Federal Government is failing to enforce transparency laws that have existed for decades.

The burden to disclose how taxpayer dollars are spent is not solely the responsibility of the government. Recipients of some federal grants are required by law to publicly report whether federal funds were used in their project. As this report details, there has been a woeful lack of compliance with this requirement, depriving Americans of the ability to track how their tax dollars are spent.

Stevens Amendment

Federal spending bills since 1989 have included funding transparency language known as the Stevens Amendment. The Stevens Amendment requires that federal grant recipients disclose in a press release or other documents whether, and how much, federal funds were used for a project. Most recently included in the FY16 omnibus² and FY17 House Appropriations Labor, Health and Human Services, Education and Related Agencies (Labor-HHS) subcommittee draft report,³ the law states:

When issuing statements, press releases, requests for proposals, bid solicitations and other documents describing projects or programs funded in whole or in part with Federal money, all grantees receiving Federal funds included in this Act, including but not limited to State and local governments and recipients of Federal research grants, shall clearly state—

- (1) the percentage of the total costs of the program or project which will be financed with Federal money;*
- (2) the dollar amount of Federal funds for the project or program; and*
- (3) percentage and dollar amount of the total costs of the project or program that will be financed by non-governmental sources.*

¹ Data Act of 2014, Pub. L. No. 113-101, 128 Stat. 1146 (2014). Retrieved from <https://www.congress.gov/bill/113th-congress/senate-bill/994>

² Consolidated Appropriations Act of 2016, Pub. L. No. 114-113, 129 Stat. 2242 (Dec. 18, 2015). Retrieved from <https://www.congress.gov/bill/114th-congress/house-bill/2029/text>

³ Labor-HHS Subcommittee draft report, 114th Cong. (2016). Retrieved from <http://appropriations.house.gov/uploadedfiles/bills-114hr-sc-ap-fy2017-laborhhs-subcommitteedraft.pdf>

This reporting requirement covers all funding received from agencies under the purview of the Labor-HHS Appropriations Subcommittee, including the National Institute of Health (NIH). Indeed, NIH's "Appropriations Mandates" web page includes a section titled "Acknowledgment of Federal Funding" that outlines the reporting requirements of the Stevens Amendment.⁴ The language remains in force for FY17 through the 2016 Continuing Resolution.

Violations of the Stevens Amendment

Following the release of Senator Jeff Flake's 2017 Wastebook,⁵ White Coat Waste Project and Restore Accountability discovered that many grantees featured in the report violated the Stevens Amendment by failing to properly disclose information about federal funding in their press releases and other publications. Wastebook-listed projects violating the disclosure law included:

- 1. "Seeing Red Makes Monkeys Randy"** (NYU & University of Rochester)
Federal Funding: \$230,000 from NIH
Violation: In a press release about their NIH-funded experiments on whether monkeys prefer photographs of other monkeys' rear-ends on red or blue backgrounds, the University of Rochester failed to disclose the amount of federal funding and non-government funding the project received.⁶
- 2. "Hamster Cage Matches"** (Northeastern University)
Federal Funding: \$3.4 million from NIH
Violation: In a press release about their NIH-funded experiments on whether Prozac makes hamsters more aggressive in staged fights, Northeastern University failed to acknowledge any federal support and to disclose the specific amount of federal funding the project received.⁷
- 3. "Drooling Monkeys and the Evolution of Saliva"** (SUNY-Buffalo)
Federal Funding: \$817,000 from NIH
Violation: In a press release about their NIH-funded experiments on the evolution of saliva in humans, great apes and monkeys, SUNY-Buffalo failed to acknowledge any federal support and to disclose the specific amount of federal funding the project received.⁸

Systemic public disclosure violations among Ivy League grant recipients

Unfortunately, the Wastebook-listed projects failing to disclose funding are not an anomaly. A first-of-its-kind analysis on compliance within Ivy League institutions by Restore Accountability and

⁴ National Institutes of Health. (2016, Nov). *NIH Grants Policy Statement*, S. 4.2.1. Retrieved from https://grants.nih.gov/grants/policy/nihgps/html5/section_4/4.2_appropriation_mandates.htm

⁵ *Flake Releases Wastebook: PORKémon Go* [Press release]. (2017, Jan 10). Retrieved from <https://www.flake.senate.gov/public/index.cfm/2017/1/flake-releases-wastebook-pork-mon-go>

⁶ University of Rochester. (2014, October 17). *'Red Effect' sparks interest in female monkeys* [Press release]. Retrieved from <http://www.rochester.edu/newscenter/red-effect-sparks-interest-in-female-monkeys/>

⁷ Northeastern University. (n.d.). *Fluoxetine Increases Aggressive Behavior, Affects Brain Development Among Adolescent Hamsters* [Press release]. Retrieved from <http://www.northeastern.edu/cos/2012/10/release-fluoxetine-increases-aggressive-behavior-affects-brain-development-among-adolescent-hamsters/>

⁸ University at Buffalo. (2016, August 25). *Looking to saliva to gain insight on evolution* [Press release]. Retrieved from <http://www.buffalo.edu/news/releases/2016/08/006.html>

White Coat Waste Project has found that funding disclosure violations could be pervasive. While our research may have just uncovered the tip of the iceberg, that “tip” amounts to nearly a quarter-billion dollars in 2016 NIH funding for a relatively small sample of projects.

100 Percent Violation Rate Among Ivy League Institutions

To determine the prevalence of these funding disclosure violations among taxpayer-funded institutions, we reviewed Ivy League university 2016 press releases reporting animal experiments. The NIH reports that 47%⁹ of the \$32 billion in research projects it funds involve animal experimentation, so we chose this research subset with the expectation that it would comprise approximately half of NIH-funded research within the sample group.

Searching all eight universities’ websites, we identified a sample of 100 press releases published in 2016 about NIH-funded animal experiments, which included projects involving dogs, primates, mice, rats and other animals.¹⁰ The NIH funding received by these 100 projects in FY16 totals \$246,101,215.

Our analysis found that none of the 100 Ivy League press releases we examined complied with the funding disclosure requirements of the Stevens Amendment.

Institution	# of press releases	# of press releases complying with Stevens Amendment	Total FY16 NIH funding for projects in press releases¹¹	Total institutional NIH funding in FY16^{12,13}
Brown	6	0	\$3,120,253	\$74,222,324
Columbia	6	0	\$11,228,778	\$413,869,595
Cornell	6	0	\$18,972,459	\$190,904,331
Dartmouth	3	0	\$503,705	\$89,116,869
Harvard	51	0	\$177,268,769	\$377,840,072
U. Penn	11	0	\$12,329,009	\$478,866,008
Princeton	3	0	\$2,560,052	\$46,444,859
Yale	14	0	\$20,118,190	\$407,245,439
TOTALS	100	0	\$246,101,215	\$2,078,509,497

⁹ Institute of Medicine (US); National Research Council (US). International Animal Research Regulations: Impact on Neuroscience Research: Workshop Summary. Washington (DC): National Academies Press (US); 2012. 3, Emerging Legal Trends Impacting Animal Research. Retrieved from: <https://www.ncbi.nlm.nih.gov/books/NBK100123/>

¹⁰ Note: This list of press releases is extensive but may not be exhaustive. Some universities do not publish all of their releases in a centralized media/press bank, meaning that all releases separately posted by departments, colleges and schools within a university may not be covered.

¹¹ These figures were determined by locating the full text of the research paper covered by each press release, identifying NIH grant numbers cited as funding sources in the papers (when available), and searching the FY16 funding for those projects on the NIH RePORTER website.

¹² NIH Awards by Location & Organization (2016, Dec 27). Retrieved from <https://report.nih.gov/award/index.cfm?ot=&fy=2016&state=&ic=&fm=&orgid=&dist=&rfa=&om=n&pid>

¹³ Columbia’s figure combines NIH funding awarded to the main university and the Morningside campus; Cornell’s includes the main university and Weill-Cornell Medical School; and Harvard’s includes the main university, the School of Public Health and the Medical School.

Conclusion

If our nation's eight most prominent educational institutions are systematically violating funding disclosure law, the problem likely extends to the thousands of other entities receiving the balance of the NIH's \$32 billion annual research budget, and grantees of other agencies covered by the Stevens Amendment.

Moving forward, it is essential that federal agencies covered by the Stevens Amendment enforce public disclosure law that require their grantees to report how much taxpayer money they are spending, and on what. Knowing how taxpayer dollars are spent is an issue of broad, bipartisan interest.

A March 2017 national poll of 1,000 voters found that 73 percent—80 percent of Republicans and 70 percent of Democrats—agree that federally-funded laboratories publicizing results of their research should be required to clearly indicate if the work was paid for by taxpayers and how much was spent.¹⁴

For the transparency “revolution” to continue to flourish, the American public must know what projects are funded by our tax dollars and what we are getting out of this spending. Doing so will enhance government accountability while helping to root out waste, fraud and duplication.

Recommendations

1. Permanently enshrine the Stevens Amendment in federal law and cover all executive agencies.
2. Directly alert all grantees that receive funding covered by the Stevens Amendment of their public disclosure responsibilities.
3. Conduct an audit to determine pervasiveness of Stevens Amendment disclosure failures.

¹⁴ Lincoln Park Strategies (2017, March 07). *National voter poll commissioned by White Coat Waste Project.*

Stevens Amendment Noncompliance on Ivy League Press Releases for NIH-funded Animal Research Projects (2016)

Institution Name	Press Release Date	Press Release Title	Species Mentioned	Federal Funding Agency	Release Includes % of Project to be Financed with Federal Funds	Release Includes \$ Amount Financed by Federal Funds	Release Includes % and \$ Amount Financed with Non-federal Funds	NIH grant #s determined by reviewing other sources	FY2016 federal funding amount
					Y/N	Y/N	Y/N		
Brown University	4/21/16	Asleep somewhere new, one brain hemisphere keeps watch ¹	Marine mammals	NIH NSF	N	N	N	R01 EY019466 07	\$406,250
Brown University	6/3/16	Study shows how judgment of sensory simultaneity may develop in the brain ²	Tadpoles	NSF NIH	N	N	N	T32 EY018080 10	\$137,642
Brown University	7/14/16	GAGA may be the secret of the sexes — at least in insects ³	Fruit flies	NIH	N	N	N	R01 HG005287 06 T32 GM007601 37S1 T32 GM007601 37 R01 GM098461 06	\$1,455,330
Brown University	7/25/16	New theory explains how beta waves arise in the brain ⁴	Rhesus Macaques & Mice	NIH NSF	N	N	N	R01 MH106174 03	\$291,756
Brown University	9/29/16	Formaldehyde damages proteins, not just DNA ⁵	Non-specific	NIH	N	N	N	R01 ES020689 03	\$399,209
Brown University	10/13/16	Grant funds big-data study of brain connectivity ⁶	Non-specific	NIH	N	Y	N	R01EB022911-01	\$430,066
Columbia University	1/27/16	CRISPR Used to Repair Blindness-causing Genetic Defect in Patient-derived Stem Cells ⁷	Rats	NIH	N	N	N	R01 EY024665 02 R01 EY025225 02 R01 EY024698 02 R01 EY018213 08 R21 AG050437 02 P30 CA013696 42	\$5,488,076
Columbia University	2/18/16	Scientists Eliminate Core Symptom of Schizophrenia in Mice ⁸	Mice	NIH	N	N	N	R01 MH096274	\$0
Columbia University	3/10/16	Scientists Watch Activity of Newborn Brain Cells in Mice; Reveal they are Required for Memory ⁹	Mice	NIH	N	N	N	F30 NS090819 03 U01 1NS090583 03 U01 1NS090583 03S1 R01 NS094668 02 R01 MH100631 03 R37 MH068542 14 R01 AG043688 04	\$2,406,671

Columbia University	6/14/16	This Hormone Makes Old Mice Run Like Youngsters ¹⁰	Mice	NIH	N	N	N	5 P01 AG032959 07	\$1,927,138
Columbia University	7/18/16	Intranasal Flu Vaccine Produces Long-Lasting Immune Response in Mice ¹¹	Mice	NIH	N	N	N	R01 AI100119 05 R01 HL116136 02 T32 AI106711 03	\$1,056,893
Columbia University	8/22/16	Omega-3 Injection Reduces Stroke-Like Brain Damage in Mice ¹²	Mice	NIH	N	N	N	R01 NS088197 02	\$350,000
Cornell University	3/24/16	Self-repairing cancer cells future of cancer treatments ¹³	Mice	NIH NSF	N	N	N	R01 HL082792 R01 NS059348 U54 CA143876 S10 OD018516	\$402,500
Cornell University	4/6/16	Cornell-Swiss study finds protein with power to improve heart function ¹⁴	Mice	NIH	N	N	N	R01 GM098596 R01 CA163255 T32 GM008500 R00 CA168997 R01 CA193256 R21 CA201963 R01 AG043930	\$1,539,212
Cornell University	4/7/2016	Primate evolution in the fast lane ¹⁵	Primates & Mice	NIH	N	N	N	R01 HG006849 R01 GM108805	\$525,125
Cornell University	4/14/2016	Surface mutation lets canine parvovirus jump to other species ¹⁶	Dogs & Raccoons	NIH NSF	N	N	N	R01 GM8496821 R01 AI092571 F32 AI100545	\$0
Cornell University	5/6/16	Finding Zika one paper disc at a time ¹⁷	Primates	NIH	N	N	N	R33 AI100190 04S1 R33 AI100190 05	\$762,721
Cornell University	9/28/16	Nanoparticle creates 'wave of destruction' in cancer cells ¹⁸	Mice	NIH	N	N	N	R01 GM111350 03 P30 CA008748 50 P30 CA008748 (50S1-50S6) U54 CA199081 02 R01 CA166413 04 R01 CA161280 05 R01 GM113013 02	\$15,742,901
Dartmouth College	1/19/2016	Dartmouth Researchers Explain How Vestibular System's Horizontal Canals Influence Directional Navigation ¹⁹	Mice	NIH	N	N	N	R01 DC009318 R01 NS053907	\$0
Dartmouth College	5/18/16	Function Follows Form – Revealing the Molecular Mechanisms of Viruses ²⁰	Non-specific	NIH	N	N	N	R01 AI118016 01A1	\$503,705

Dartmouth College	9/29/16	Dartmouth Study on Brain Function and Behavior Provides New Insight on Why Risk-Taking Behavior Increases During Adolescence ²¹	Rats	NIH	N	N	N	F31 MH107138 R01 DA027688	\$0
Harvard University	1/14/16	Seeing Hope: Gene therapy/drug combo restores some vision in mice with optic nerve injury ²²	Mice	NIH	N	N	N	P30 HD018655 P30 EY012196 R01 EY026939	\$1,261,380
Harvard University	1/21/16	Photo Finish: Nanoparticles pair photodynamic and molecular therapies against pancreatic cancer in mice ²³	Mice	NIH	N	N	N	P01 CA084203 12	\$1,419,849
Harvard University	1/27/16	Biological Origin of Schizophrenia: Excessive 'pruning' of connections between neurons in brain predisposes to disease ²⁴	Mice	NIH	N	N	N	U01 MH105641 03 R01 MH077139 08 T32 GM007753 38 T32 GM007753 38S1	\$6,865,194
Harvard University	1/28/16	Cytoskeleton Crew: Findings confirm sugar's role in helping cancers survive by changing cellular architecture ²⁵	Mice	NIH NSF	N	N	N	R01 GM041890 29 R01 CA169470 04	\$852,600
Harvard University	1/28/16	The Cell that Caused Melanoma: Cancer's origin and spread visualized in zebrafish ²⁶	Zebrafish	NIH	N	N	N	R01 CA103846 14	\$373,081
Harvard University	2/11/16	Breaking Point: Hotspots for DNA breaks cluster in specific genes in developing neurons ²⁷	Mice	NIH	N	N	N	K01 AG043630 05	\$129,330
Harvard University	2/19/16	Shedding Light on Inflammation: New findings show a mechanism that prevents inflammatory cells from adhering to blood vessels ²⁸	Mice & Rabbits	NIH	N	N	N	R01 HL123658 03	\$477,441
Harvard University	3/16/16	Synaptic Amplifier: Gene discovery reveals mechanism behind how we think ²⁹	Mice	NIH	N	N	N	R01 NS032405 22	\$525,293
Harvard University	3/17/16	Renewable Energy: 'Aging molecule' provides clue to recovery from acute kidney injury ³⁰	Mice	NIH	N	N	N	K08 DK101560 03	\$150,541

Harvard University	3/28/16	Road Map Structural basis for connections between brain neurons revealed ³¹	Mice	NIH	N	N	N	P41 GM103712 05	\$1,557,310
Harvard University	3/31/16	Back to the Beginning: Mouse study suggests possibility of curbing early synapse loss in Alzheimer's ³²	Mice	NIH	N	N	N	T32 AG000222 25 R01 NS083845 03	\$933,684
Harvard University	4/4/16	Odd One Out: Researchers determine structure of unique receptor linked to neurodegeneration ³³	Mice	NIH	N	N	N	T32 GM007226 41	\$622,079
Harvard University	4/7/16	An Intriguing Class An HMS team is exploring how genome scrambling impacts RNA ³⁴	Mice	NIH	N	N	N	R01 CA142874 06A1	\$465,791
Harvard University	4/11/16	Leukemia's 'Clockworks': Circadian rhythm circuitry is essential for leukemia stem cells, suggesting therapeutic pathways ³⁵	Mice	NIH	N	N	N	P01 CA066996 18 R01 HL082945 10	\$2,693,317
Harvard University	4/19/16	Unnatural Selection: Exploiting breast tumor cells' survival mechanism to stem tumor growth ³⁶	Mice	NIH NSF	N	N	N	R01 CA177910 04 P01 CA120964 10 P30 CA006516 51 P30 CA006516 (51S1-51S8) R01 GM041890 29	\$15,780,493
Harvard University	5/13/16	Gut Reaction: Diet and gut microbes can remotely influence brain inflammation ³⁷	Mice	NIH	N	N	N	T32 AI07528 18 R56 AI093903 06A1	\$680,170
Harvard University	5/26/16	Gut Feelings ³⁸	Mice	NIH NSF	N	N	N	R01 DK103703 01A1	\$381,375
Harvard University	5/26/16	A Room of Their Own: Mutant worms repurpose genes to pattern crowded nervous system ³⁹	"Mutant" worms	NIH NSF	N	N	N	P40 OD010440 05	\$433,613
Harvard University	5/26/16	Odor Alternative: 'Olfactory necklace' detects scents in a way contrary to neurobiology dogma ⁴⁰	Mice	NIH	N	N	N	DP2 OD007109 R01 DC011558	\$0

Harvard University	6/9/16	Autism's Reach ⁴¹	Mice	NIH	N	N	N	R01 DE022750 05	\$811,016
Harvard University	6/15/16	Predictive Genomics ⁴²	Mice	NIH	N	N	N	R01 GM67945 13 U41 HG006673 05	\$1,155,902
Harvard University	7/7/16	Fueling the Fire ⁴³	Mice	NIH	N	N	N	P01 CA80124 15	\$2,237,643
Harvard University	7/13/16	Focal Point ⁴⁴	Mice	NIH	N	N	N	R01 GM107536 03 R01 GM107536 03 T32 GM007753 38 T32 GM007753 38S1	\$3,125,101
Harvard University	7/14/16	More Than Meets the Eye ⁴⁵	Non-specific	NIH NSF	N	N	N	R01 EY11379 19 P30 EY12196 18	\$1,406,561
Harvard University	7/22/16	Weak Spot ⁴⁶	Mice	NIH	N	N	N	R01 AR064724 03	\$549,085
Harvard University	7/26/16	Sugar Suspect ⁴⁷	Mice	NIH	N	N	N	R01 DK104649 02 P30 DK036836 30	\$2,456,666
Harvard University	8/4/16	Shields Up ⁴⁸	Monkeys & Mice	NIH DOD	N	N	N	U19 AI096040 05 UM1 AI100663 05 UM1 AI100663 04S1 UM1 AI124377 01	\$38,267,796
Harvard University	8/17/16	A Neuron's Hardy Bunch ⁴⁹	Mice	NIH NSF	N	N	N	F31 NS089077 03 R01 NS083898 03	\$401,894
Harvard University	8/23/16	Insights into Protein Recycling ⁵⁰	Roundworms	NIH	N	N	N	R01 AG016636 18	\$457,333
Harvard University	8/24/16	Breast Cancer Switchbacks ⁵¹	Mice	NIH	N	N	N	R01 CA129933 09	\$357,979
Harvard University	8/24/16	An Agent of Demise ⁵²	Mice	NIH	N	N	N	R01 NS082257 04 R01 AG047231 03	\$795,955
Harvard University	9/6/16	Closer to the Bedside ⁵³	Mice	NIH	N	N	N	U01 HL117720 04 K08 DK093705 05	\$1,639,721
Harvard University	9/8/16	Keeping Up with HIV Mutations ⁵⁴	Mice	NIH	N	N	N	R01 AI077595 08 U19 AI109632 04 UM1 AI100645 05 UM1 AI100645 04S1	\$34,140,317
Harvard University	9/15/16	Short-Term Solution ⁵⁵	Mice	NIH	N	N	N	UO1 CA105423	\$0

Harvard University	9/15/16	Taste for Fat ⁵⁶	Mice	NIH	N	N	N	R01 DK103295 02	\$381,375
Harvard University	9/22/16	Autism and Evolution ⁵⁷	Mice, Goats, Rabbits, & Chickens	NIH	N	N	N	R21 NS091865 03 R01 MH083565 10	\$974,695
Harvard University	9/22/16	Making a Difference in TB ⁵⁸	Mice	NIH DARPA	N	N	N	R37 AI080289 07 T32 AI007387 27	\$1,071,324
Harvard University	9/29/16	Protection from C. diff? ⁵⁹	Mice, Rats, Rabbits & Chickens	NIH	N	N	N	R01 NS080833 05 R01 CA095287 12S1 R01 GM057603 15	\$880,689
Harvard University	10/12/16	Why Antiangiogenesis Fails ⁶⁰	Mice	NIH	N	N	N	P01 CA080124 15 T32 DK007191 42S1 T32 DK007191 42 R35 CA197743 02	\$3,850,778
Harvard University	10/21/16	Maze Runners ⁶¹	Mice	NIH	N	N	N	R01 MH107620 02 R01 NS089521 02	\$887,433
Harvard University	10/27/16	T Minus, T Plus ⁶²	Mice	NIH	N	N	N	R01 AI115712 02 U19 AI082630 08 U01 HG007910 02 UM1 AI068618 10 U01 MH105979 03	\$21,019,397
Harvard University	11/3/16	Protein Partners ⁶³	Rabbits	NIH	N	N	N	R01 DK103295 02 U41 HG006673 05 R37 NS083524 12	\$1,466,175
Harvard University	11/9/16	Genetic Repurposing ⁶⁴	Mice & Rats	NIH	N	N	N	P50 MH106933 03 F32 NS086270 03	\$3,370,403
Harvard University	11/15/16	Heart Atlas ⁶⁵	Mice	NIH	N	N	N	K08 HL125807 02 K08 HL125807 03 R01 MH101528 04 T32 GM007753 38 T32 GM007753 38S1 UM1 HL098179 08 UM1 HL098147 08 UM1 HL098166 08	\$5,616,252
Harvard University	11/15/16	Fight Club ⁶⁶	Mice	NIH	N	N	N	R01 AA013983 14 R01 DA034022 03	\$890,663
Harvard University	11/21/16	Color-Coded Stem Cells ⁶⁷	Zebrafish	NIH	N	N	N	F31 HL126338 02 R01 DK074482 11	\$367,835

Harvard University	11/21/16	New Insight into the Brain's Control of Hunger and Satiety Could Help Researchers Target Overeating and Obesity ⁶⁸	Mice	NIH	N	N	N	R01 DK075632 11 R01 DK089044 07 R01 DK111401 01 P30 DK046200 24 P30 DK057521 17 F32 DK103387 03	\$3,848,768
Harvard University	11/22/16	Rapid Fire ⁶⁹	Mice	NIH	N	N	N	R01 DK075632 11 R01 DK089044 07 R01 DK111401 01 P30 DK046200 24 P30 DK057521 17 F32 DK103387 03	\$3,848,768
Harvard University	11/30/16	Testing Tumors ⁷⁰	Mice	NIH DOD	N	N	N	P01 CA080124 15 R01 HL128168 02 R35 CA197743 02	\$3,861,587
Harvard University	11/30/16	Stuck on You ⁷¹	Worms, Rabbits & Guinea pigs	NIH	N	N	N	R01 GM072551 11 R00 AG040191 05	\$572,124
Harvard University	12/20/16	Diabetes Drug vs. Cancer ⁷²	Mice & Rabbits	NIH	N	N	N	R01 DK072041 12 R01 CA166717 06	\$954,993
Princeton	6/10/16	Scoliosis linked to disruptions in spinal fluid flow ⁷³	Zebrafish	NIH	N	N	N	R01 HD048584 10	\$394,943
Princeton	8/24/16	In unstable times, the brain reduces cell production to help cope ⁷⁴	Rats	NIH	N	N	N	ZIA MH002784 15	\$1,825,614
Princeton	12/9/16	Monkey speak: Macaques have the anatomy, not the brain, for human speech ⁷⁵	Primates	NIH	N	N	N	R01 NS054898 09	\$339,495
University of Pennsylvania	2/15/16	Penn Study: Visualizing a Parasite Crossing the Blood Brain Barrier ⁷⁶	Mice	NIH	N	N	N	K08 NS065116 R01 AI041158 R01 AI041930 S10 RR027128	\$400,000
University of Pennsylvania	3/21/16	Penn Vet Study Identifies Mechanism Explaining Female Bias in Autoimmunity ⁷⁷	Mice	NIH	N	N	N	R01 GM07229	\$461,061
University of Pennsylvania	4/26/16	Penn Team Restores Memory Formation Following Sleep Deprivation in Mice ⁷⁸	Mice	NIH	N	N	N	P01 AG017628 14 K12 GM081259 10 T32 NS007413 19	\$2,708,345
University of Pennsylvania	5/3/16	PIK Professor Michael Platt Earns \$2.9 Million NIH Award for Neural Circuitry Work ⁷⁹	Primates	NIH	N	Y	N	R37 MH109728	\$609,908

University of Pennsylvania	5/4/16	Penn Study Points to Path for Antibiotic-free Treatment for Atopic Dermatitis ⁸⁰	Dogs	NIH	N	N	N	R01 AR066663 02	\$352,000
University of Pennsylvania	6/15/16	Penn-led Study Resolves Long-disputed Theory About Stem Cell Populations ⁸¹	Mice	NIH	N	N	N	R01 DK106309 01A1 P30 DK050306 20	\$1,538,476
University of Pennsylvania	7/20/16	Penn-led Team Develops Plant-based Polio Booster Vaccine ⁸²	Mice	NIH	N	N	N	R01 HL107904 05	\$633,875
University of Pennsylvania	8/29/16	Penn: Blinding Disease in Canines and Humans Shares Causative Gene, Pathology ⁸³	Dogs	NIH	N	N	N	4 T35 OD010919 19	\$119,128
University of Pennsylvania	10/13/16	Penn Vet Study Identifies New Mechanism for Antibacterial Immunity ⁸⁴	Mice	NIH	N	N	N	R01 AI103062 04 R01 AI108685 03 R01 AI108685 03S1 R21 CA185681 02 R01 AI083284 08	\$1,615,455
University of Pennsylvania	10/31/16	Penn Study Shows How Some Intestinal Cells Resist Chemotherapy and Radiation ⁸⁵	Mice	NIH	N	N	N	P30 DK050306 20 R01 DK101989 03S1 R01 DK101989 03 R01 CA168654 05 R01 CA193842 02 R01 DK106309 01A1	\$2,749,638
University of Pennsylvania	12/16/16	Penn Study Finds Link Between HIV Treatment and Neuronal Degeneration ⁸⁶	Rats & Mice	NIH	N	N	N	U24 MH100930 04	\$1,141,123
Yale University	6/6/16	Combination therapy cures tick-borne illness in mice ⁸⁷	Mice	NIH Veterans Affairs	N	N	N	R01 AI100569 04	\$613,423
Yale University	8/25/16	Zika virus may persist in the vagina days after infection ⁸⁸	Mice	NIH	N	N	N	K08 AI119142 02 R01 AI054359 12 T32 GM007205 42 T32 GM007205 42S1	\$2,956,485
Yale University	9/8/16	Listening to the body: Study examines the effects of fasting on infections ⁸⁹	Mice	NIH	N	N	N	T32 AR007107 42 P30 DK079310 09 P30 DK079310 09S1	\$1,510,522
Yale University	9/19/16	Fighting cancer with sticky nanoparticles ⁹⁰	Mice	NIH	N	N	N	CA149128 CA154460	\$375,710
Yale University	9/20/16	Two mood drugs combat virus implicated in birth defects ⁹¹	Mice	NIH	N	N	N	R01 CA16104805 R01 CA188359 02	\$728,110
Yale University	9/23/16	Vishwa Deep Dixit awarded \$10.5 million to lead anti-aging research effort ⁹²	Mice	NIH	N	Y	N	P01 AG051459	\$2,037,358

Yale University	9/26/16	Two new studies explore the science of cardiovascular diseases ⁹³	Mice	NIH	N	N	N	P01 HL107205 05 R01 EY025979 02 R01 HL125811 02 T32 HL007950 16A1	\$3,152,478
Yale University	9/27/16	New insight into eye diseases ⁹⁴	Mice	NIH	N	N	N	R01 EY024986 01A1	\$397,950
Yale University	10/11/16	New model for understanding human myeloma ⁹⁵	Mice	NIH	N	N	N	R01 CA106802 11 R35 CA197603 01A1	\$1,112,879
Yale University	10/19/16	Study finds key regulator in pulmonary fibrosis ⁹⁶	Non-specific	NIH	N	N	N	R01 HL095397 U01 HL108642 RC2 HL101715 R01 HL127349 P01 DK57751 R01 AR066003 R01 HL109233 R01 HL125850	\$3,606,201
Yale University	10/26/16	Yale scientists edit gene mutations in inherited form of anemia ⁹⁷	Mice	NIH NSF	N	N	N	R01 AI112443 03 R24 OD018259 03 U54 DK106857 02S1 U54 DK106857 02	\$2,261,416
Yale University	11/18/16	New model for studying Alzheimer's disease ⁹⁸	Mice	NIH	N	N	N	R01 DC014723 01A1 R21 DC014357 02	\$603,205
Yale University	11/29/16	Study points to possible treatment for a rare vascular disease ⁹⁹	Mice	NIH	N	N	N	R01 EY025979 02	\$374,625
Yale University	12/14/16	Can a cancer drug treat a rare cardiac disease? ¹⁰⁰	Mice	NIH	N	N	N	R01 AR066003 02	\$387,828
Total									\$246,101,215

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