

# Commonwealth Universal Research Enhancement Program Annual Report 2019

Health Research Office

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**pennsylvania**  
DEPARTMENT OF HEALTH

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## Executive Summary

Chapter 9 of Act 2001-77, the Tobacco Settlement Act (Act) established the Commonwealth Universal Research Enhancement (CURE) Program within the Pennsylvania Department of Health (Department). The program is administered by the Health Research Office.

The CURE Program awards grants to Pennsylvania-based organizations for biomedical, clinical and health services research. Studies funded by the grants aim to improve the delivery of health care, promote health, prevent disease and injury, and translate research advances to community health care practice.

Grant funding is awarded in two types of health research grants:

- ❖ **Formula grant** - distributed by a pre-determined formula to institutions that received funds from the National Institutes of Health (NIH); and
- ❖ **Non-formula grants** - selected through a competitive peer review process.

Over the past 19 years, the Department has awarded more than \$1 billion in CURE Program grants (approximately \$768 million in Formula and approximately \$245 million in Non-formula grants) to a total of 60 organizations.

CURE has led to research discoveries including new developments in smoking cessation; genome-based therapeutics; heart and lung disease; nutrition and obesity; addiction; pancreatic, liver, breast and lung cancers; and leukemia.

Grants have funded laboratory construction, state-of-the-art research equipment acquisition and maintenance, ongoing research programs and new research studies.

# Methods

## CURE Program Overview

The Act authorized the Department through the CURE Program to fund health research using tobacco settlement monies. Of the tobacco settlement funds received in Pennsylvania, CURE receives 12.6 percent, of which 70 percent are awarded by “formula” to institutions that have previously received awards from National Institutes of Health (NIH) [titled Formula grants], and 30 percent are used for Non-formula competitive grants. One percent of the tobacco settlement funds are an additional formulaic award to Formula grants that received funds from the National Cancer Institute.

All research must be completed within four years of the grant start date. A Formula grant may be used to support more than one research project, and projects may focus on basic biomedical research, patient-oriented clinical investigations or health services research. Up to 50 percent of the Formula grant funds may be spent on infrastructure, which is defined in the Act to include office equipment and supplies, nonprofessional personnel, and laboratory or building construction, or renovations used to conduct research.

Research funds are awarded to projects that are consistent with the program’s research priorities. In developing the health research priorities, consideration is given to the national health promotion and disease prevention objectives as applied to Pennsylvania. Priorities focus on critical research areas and the disparities in health status that occur among various populations within the commonwealth.

## Formula Grants

Annually, NIH information is gathered on Pennsylvania institutions that received funds for the preceding federal fiscal year (FFY). Institutions that received three consecutive years of NIH funds are contacted for verification of the funding amounts. Upon receipt of the confirmation, funds are distributed as follows: (1) 20 percent is distributed to each institution that receives more than \$175 million as an average amount from the NIH during the three immediately preceding FFYs; (2) 17 percent is distributed to each institution that receives more than \$175 million in federally sponsored research and development obligations in the immediately available preceding FFY as reported by the National Science Foundation (NSF) and receives more than \$60 million as an average amount from the NIH during the three immediately preceding FFYs; and (3) the remaining funds are distributed to eligible institutions based on the percentage calculated by dividing an institution’s average award from the NIH for the three immediately preceding FFYs by the sum of the average annual award from the NIH for all of Pa.-based eligible institutions during the three immediately available preceding FFYs. Institutions that received National Cancer Institute (NCI) funds during each of the three immediately preceding FFYs receive additional funds when they fall under (3) above.

All health research fund recipients are required to complete a grant application, which contains information specified in the Act, as well as other information deemed necessary by the

Department. The application includes a memorandum of understanding requiring applicants to abide by federal ethical and procedural standards of conduct as prescribed by the NIH as of the date that the memorandum was executed.

## **Non-formula Grants**

The CURE program includes two research areas for Non-formula grants, they are: 1) health and 2) spinal cord research.

Through an annual Request for Application (RFA) process, the Department solicits research applications for both areas. All eligible applications are then subjected to a peer review. This process is a process used by the NIH to review and rate the scientific merit of the research proposals. Researchers, physicians and scientists who possess expertise in the area addressed by the proposal serve on the peer review panels which assures that the proposals are rated by experts who understand the scientific merit and significance of complex, highly specialized research methodologies. The peer review panels also review the proposals to determine if there are any ethical issues. Their comments are then sent to the applicants.

### **1) Health Research**

Health research priorities are established by the Department, in conjunction with the Health Research Advisory Committee (HRAC). Institutions that apply in response to an RFA related to the predetermined health research priority must meet certain eligibility criteria.

Specifically, they must be located in Pennsylvania and must be (1) a person, (2) a non-profit entity that conducts research, (3) a hospital that conducts research and is established under the Act of July 19, 1979 (P.L. 130, No. 48), known as the Health Care Facilities Act, (4) an institution of higher education that conducts research, or (5) an entity established under the Act of Aug. 24, 1951 (P.L. 1304, No. 315), known as the Local Health Administration Law. All applicants must have their primary location within Pennsylvania. Entities other than general partnerships and sole proprietorships must be registered with the Department of State.

Then, as was previously mentioned, the research application is subject to a peer review. Following the peer review, the Department identifies members for an evaluation committee (Committee). The Committee reviews both the peer review panel comments and rankings, as well as the proposals, for duplication. The Committee then provides a recommendation to the secretary of health for the funding amounts to the top ranked proposals and provides additional comments for the applicants, if necessary.

Grant awards are made based on the amount of available funding, which has been decreasing with the most recent estimated amount for state fiscal year (SFY) 2020-2021 at \$10,187,514. The RFA identifies \$4M as the maximum amount for an award request. The awards are made based on the amount requested in the application, the amount of funds available, as well as the ranking of the proposals and how many applications are to be funded.

## **2) Spinal Cord Research**

In October 2018, Act 126 of 2018 established the Spinal Cord Injury Research Program under CURE. This Act provided for the Department, in conjunction with the Spinal Cord Research Advisory Committee (SCRAC), to establish spinal cord injury research priorities. Similar to the health research process, institutions that apply in response to an RFA where spinal cord injury research is the priority must also meet set criteria.

More specifically, an eligible institution must conduct research on spinal cord (SC) injuries in this commonwealth and be (1) a nonprofit entity that conducts research, (2) a hospital that conducts research and is established under the Act of July 19, 1979 (P.L. 130, No. 48), known as the Health Care Facilities Act, or (3) an institution of higher education that conducts research. All institutions must have their primary location within Pennsylvania and also must be registered with the Department of State.

These applications are also subject to a peer review and then evaluated by a committee (SC-Committee). The Department includes the SCRAC members without a conflict of interest on the SC-Committee. The SC-Committee reviews the peer review panel comments and ranking as well as the proposals for duplication. The SC-Committee then provides a recommendation to the secretary of health for the funding amounts to the top-ranked proposals and provides additional comments for the applicants, if necessary.

The Secretary of Health has identified \$1,000,000 as the annual fund amount which began with SFY 2019-2020. The SCRAC identifies three tier level maximum amounts for funding which are provided in the RFA. Tier 1 is Pilot Research Grant with the smallest award. Tier 2 is Standard Research Grant with a medium award. Tier 3 is Clinical/Translational Research Grant with the largest award. For the initial RFA, two SFY funds were combined for \$2,000,000, which led to maximum tier award amounts of \$100,000, \$200,000 and \$400,00. The awards are made based on the amount requested, the amount of funds available, as well as the ranking of the proposals and how many applications are to be funded.

### **Performance Review**

According to the Act, any applicant that receives a health research grant is subject to a performance review at the end of the research project or more often as deemed necessary by the Department. The Department contracted with Oak Ridge Associated Universities to oversee and manage the performance review process. Two types of performance reviews are performed: (1) final performance reviews at the end of the grant term; and (2) interim performance reviews of Non-formula grants when they are partially completed. The performance reviews are based on the requirements specified in the Act and the criteria developed by the Department in consultation with the HRAC and SCRAC.

Research grant recipients submit annual and final progress reports that address the criteria that follows below. Non-formula grants are subject to peer review prior to selection for funding by the Department. Non-formula performance reviewers are not asked questions that were considered during the initial peer review.

The performance review evaluation criteria focus on:

- How well did the project meet its stated objectives? If objectives were not completely met, was reasonable progress made?
- What is the likely beneficial impact of this project? If the likely beneficial impact is small, is it judged reasonable considering the dollars budgeted?
- Did the project leverage additional funds, or were additional grant applications submitted as a result of the project?
- Did the project result in any peer-reviewed publications, licenses, patents or commercial development opportunities? Were any of these submitted/filed?
- Did the project enhance the quality and capacity for research at the grantee's institution?
- Did the project lead to collaboration with research partners outside of the institution or new involvement with the community?

### **Assignment of Performance Review Ratings to Research Projects and Grants**

Formula grant projects and Non-formula grants are reviewed and assigned an overall rating by a minimum of three reviewers. These reviewers are experts in the technical fields of the project who have been screened for conflicts of interest. Reviewers are instructed to base all comments on the documented response to the evaluation criteria.

The final overall rating is the average rating obtained from all the reviewers. Regarding Formula grants that consist of only one project, the overall grant rating will be the average overall rating for the research project. In the case of Formula grants with more than one research project, the overall grant rating is an average rating for all projects.

The rating is made according to the following guidelines:

- **Outstanding**, 1.00 – 1.33, indicates that: (1) major strengths were identified throughout the project with few weaknesses; (2) the project met all or most of its stated objectives; and (3) the project is likely to have some beneficial impact.
- **Favorable**, 1.34 – 2.66, indicates that: (1) strengths were identified within the project with one or more weaknesses; (2) the project met some of its stated objectives and/or made acceptable progress to do so; and/or (3) the project may or may not have a beneficial impact.
- **Unfavorable**, 2.67 – 3.00, indicates that: (1) major weaknesses were identified that are pervasive throughout the project; (2) the project did not meet any of its objectives or did not make any acceptable progress to meet the objectives; (3) the project is not likely to have any beneficial impact; and/or (4) insufficient data and information were provided to support the fact that the project met any of its objectives or made acceptable progress; or (5) the information and data provided were not applicable to the project objectives listed in the strategic plan.



## **Use and Impact of Performance Review Reports**

The grant recipients receive a report of the performance review. The report includes the overall rating for the grant, the ratings for each project, as well as reviewer comments on the strengths and weaknesses of the project/grant and recommendations for future improvement. The grant recipients are required to submit a written response describing how the weaknesses and recommendations will be addressed in future health research grants.

The principal investigator (PI) of the project/grant that receives an unfavorable performance review may become ineligible for health research funding in the future. The consequence of receiving one unfavorable project/grant rating is a written warning outlining the expectations for any future project submissions and/or the inability to apply for a Non-formula grant for two state fiscal years. A second consecutive unfavorable project/grant rating will identify the PI as ineligible for two years of research grant funding. A third consecutive unfavorable project/grant rating will identify the PI as ineligible for five years of research grant funding and will require the institution to provide a corrective action plan for the grant vetting process. A fourth consecutive unfavorable project/grant rating will identify the PI as ineligible for research grant funds and require the institution to ensure the PI is removed as a participant on any currently funded research grant.



# Findings

## CURE Program Accomplishments

### Annual Progress Reports

At the end of every SFY, health research grant award recipients report progress on research projects. This information is used to compile the annual report to the legislature. This year's annual report, as well as past reports, can be found at <https://www.health.pa.gov/topics/Research/CURE/Pages/CURE.aspx>. This website is updated with the most recent information about the CURE Program, including announcements concerning research priorities, RFAs and meetings of the HRAC and SCRAC.

This Annual Report includes the annual progress reports for all active grants during the SFYs: 2015-2016, 2016-2017, 2017-2018, 2018-2019 and 2019-2020. The focus of the Formula research projects during these SFYs are identified below in Table 1.

<b>Table 1. Focus of Research Projects</b>		
<b>Research Focus</b>	<b>Number of Projects</b>	<b>Percentage*</b>
Cell biology, biological chemistry, macromolecular biophysics, genomes and genetics	71	16%
Biology of development and aging	23	5%
Bioengineering, surgical sciences and technology	33	7%
Health of populations, behavioral and biobehavioral processes	57	13%
Immunology	31	7%
Infectious diseases and microbiology	21	5%
AIDS and related research	3	0%
Oncological sciences	79	18%
Hematology	3	0%
Cardiovascular sciences	12	3%
Endocrine, metabolism, nutrition and reproductive sciences	24	5%
Musculoskeletal, oral and skin sciences	6	1%
Digestive sciences	6	1%
Respiratory sciences	5	1%
Renal and urological sciences	5	1%
Neurosciences	71	16%
<b>Total Research Projects</b>	<b>450</b>	<b>99%</b>

\*Percentages may not total 100% due to rounding.  
Based on applications submitted SFY 2015-2016 through 2019-2020.

The focus of the Non-formula research projects during these SFYs are identified in Table 2. This list includes the institutions that received awards and the amount received.

<b>Table 2. Focus of Non-formula Research Grants</b>		
<b>SFY Research Focus</b>	<b>Name of Awardees</b>	<b>Award Amount</b>
TRAUMATIC BRAIN INJURY <sup>1</sup>	Temple University	\$4,000,000.00
	The University of Pittsburgh	\$4,000,000.00
	The Trustees of the University of Pennsylvania	\$3,998,210.00
	The Children's Hospital of Philadelphia	\$3,996,730.00
	The Pennsylvania State University	\$999,082.00
HEALTH CARE INNOVATION <sup>1</sup>	Thomas Jefferson University	\$3,708,928.00
2018-2019 OPIOID ABUSE AND THE OVERDOSE CRISIS	The Trustees of the University of Pennsylvania	\$3,952,362.00
	Temple University	\$3,027,040.00
	Public Health Management Corporation	\$3,001,370.00
2019-2020 ALZHEIMER'S DISEASE	University of Pittsburgh	\$3,965,632.00
	Temple University	\$3,822,700.00
	The Trustees of the University of Pennsylvania	\$3,500,475.00
2020-2021 CORONAVIRUS (COVID-19) <sup>2</sup>	-	-
2020-2021 SPINAL CORD INJURY <sup>3</sup>	-	-
<b>Total Research Projects</b>	<b>12</b>	<b>\$41,972,529.00</b>

### Performance Review Outcomes

The outcomes of the performance reviews for SFYs 2015-2016, 2016-2017, 2017-2018, 2018-2019 and 2019-2020 are found in Table 3. The State Fiscal Year is the year the performance review was completed.

<b>Table 3. Performance Review Outcomes</b>				
<b>State Fiscal Year</b>	<b>Number of Grants</b>	<b>Grant Outcomes</b>	<b>Number of Projects</b>	<b>Project Outcomes</b>
2015-2016 Non-formula final	4	0 – Outstanding 4 – Favorable 0 – Unfavorable	4	0 – Outstanding 4 – Favorable 0 – Unfavorable
2015-2016 Formula final	8	0 – Outstanding 8 – Favorable 0 – Unfavorable	62	17 – Outstanding 43 – Favorable 2 – Unfavorable

<sup>1</sup> Combined funds from 2016-2017 and 2017-2018, to permit more awards with two identified priorities.

<sup>2</sup> Posted on DGS Wednesday, October 28, 2020, with approximately \$10M available

<sup>3</sup> Will be the first Spinal Cord Injury Request for Application; will include funds for SFY 2019-2020 and 2020-2021, for a total of \$2M

2016-2017 Non-formula final	2	0 – Outstanding 2 – Favorable 0 – Unfavorable	2	0 – Outstanding 2 – Favorable 0 – Unfavorable
2016-2017 Formula final	29	7 – Outstanding 20 – Favorable 2 – Unfavorable	73	13 – Outstanding 52 – Favorable 8 – Unfavorable
2017-2018 <sup>4</sup> Non-formula final	0		0	
2017-2018 Formula final	33	3 – Outstanding 30 – Favorable 0 – Unfavorable	186	53 – Outstanding 124 – Favorable 9 – Unfavorable
2018-2019 <sup>4</sup> Non-formula final	0		0	
2018-2019 Formula final	16	2 – Outstanding 13 – Favorable 1 – Unfavorable	36	7 – Outstanding 27 – Favorable 2 – Unfavorable
2019-2020 Non-formula final	3	1 – Outstanding 2 – Favorable 0 – Unfavorable	3	1 – Outstanding 2 – Favorable 0 – Unfavorable
2019-2020 Formula final	20	4 – Outstanding 14 – Favorable 2 – Unfavorable	81	16 – Outstanding 59 – Favorable 6 – Unfavorable
<b>TOTALS</b>	<b>115</b>	<b>17 – Outstanding 93 – Favorable 5 – Unfavorable</b>	<b>447</b>	<b>107 – Outstanding 313 – Favorable 27 – Unfavorable</b>

Information based on outcome reports from ORAU for each fiscal year.

<sup>4</sup> No Non-formula grants ended during the SFY. No performance review was completed.

# Appendix 1: Financial Report

The \$291,308,963 allocated for health research grants for the SFYs 2011-2012, 2012-2013, 2014-2015, 2015-2016, 2016-2017, 2017-2018, 2018-2019 and 2019-2020 was committed to health research grants and a contract for peer and performance review. This section of the report summarizes the commitments and expenditures for the grants that were awarded during the 2011-2012 through 2019-2020 SFYs. The financial reports for grants awarded during prior state fiscal years may be viewed in prior annual CURE reports at <http://www.health.state.pa.us/cure>.

In the SFYs 2011-2012, 2012-2013, 2014-2015, 2015-2016, 2016-2017, 2017-2018, 2018-2019 and 2019-2020, health research grant recipients received the full amount of the grant award upon the initiation of the grant term. When grant funds are awarded in a SFY, recipients are required to invest the funds in an insured interest-bearing account or in accordance with other investment guidelines contained in the grant agreement. Earnings derived from the investments must be applied toward health research projects approved by the Department. Amounts show the award amount and expenditures that include interest earned. Any unspent funds at the completion of the grant award period are returned to the Department.

## 2011-2012 Grant Awards and Expenditures

The Department awarded \$42,126,900 in Formula grants. Table 1 shows the amount of the grant awards and the expenditures for the grant terms.

## 2012-2013 Grant Awards and Expenditures

The Department awarded \$41,896,467 in Formula grants. Table 2 shows the amount of the grant awards and the expenditures for the grant terms.

## 2013-2014 Grant Awards and Expenditures

No CURE Tobacco Settlement funds were received in this SFY.

## 2014-2015 Grant Awards and Expenditures

The Department awarded \$30,179,100 in Formula grants. Table 3 shows the amount of the grant awards and the expenditures for the grant terms.

## 2015-2016 Grant Awards and Expenditures

The Department awarded \$45,067,896 in Formula grants. Table 4 shows the amount of the grant awards and the expenditures for the grant terms. The amount awarded included the 2013-2014 released funds, 2014-2015 additional funds and the 2015-2016 funds.

## 2016-2017 Grant Awards and Expenditures

The Department awarded \$30,364,000 in Formula grants. Table 5 shows the amount of the grant

awards and the expenditures for the last four SFYs.

### **2017-2018 Grant Awards and Expenditures**

The Department awarded \$34,308,000 in Formula grants. Table 6 shows the amount of the grant awards and the expenditures for the last three SFYs.

### **2018-2019 Grant Awards and Expenditures**

The Department awarded \$33,426,300 in Formula grants. Table 7 shows the amount of the grant awards and the expenditures for the last two SFYs.

### **2019-2020 Grant Awards and Expenditures**

The Department awarded \$33,940,300.00 in Formula grants. Table 8 shows the amount of the grant awards.

**Table 1. 2011-12 Formula Grants — Funds Awarded and Summary of Expenditures for State Fiscal Years 2011-12; 2012-13; 2013-14, 2014-15, 2015-2016**

2011-12 Formula Grant Institutions	Funds Awarded	Expenditures SFY 2011-12	Expenditures SFY 2012-13	Expenditures SFY 2013-14	Expenditures SFY 2014-15	Expenditures SFY 2015-16
Albert Einstein Healthcare Network	\$52,011.00	\$17,090.50	\$34,926.89	\$0	\$0	\$0
Allegheny-Singer Research Institute	\$98,254.00	\$15,540.03	\$83,126.27	\$0	\$0	\$0
American College of Radiology	\$1,777,126.00	\$29,336.40	\$278,096.35	\$552,813.06	\$574,943.29	\$203,247.12
Carnegie Mellon University	\$943,032.00	\$12,813.20	\$298,218.95	\$187,792.17	\$398,088.66	\$46,495.29
Children's Hospital of Philadelphia	\$3,521,179.00	\$185,024.88	\$787,484.70	\$832,433.80	\$743,290.31	\$956,361.68
Children's Hospital of Pittsburgh	\$228,401.00	\$75,380.48	\$146,650.35	\$0	\$0	\$0
Drexel University	\$1,320,271.00	\$196,185.28	\$901,616.09	\$190,035.00	\$37,418.25	\$0
Duquesne University	\$107,464.00	\$6,956.87	\$72,214.19	\$20,614.43	\$7,645.10	\$0
Fox Chase Cancer Center	\$2,472,183.00	\$1,004,939.00	\$1,171,868.00	\$301,082.00	\$0	\$0
Geisinger Clinic	\$75,516.00	\$13,559.74	\$47,475.80	\$0	\$0	\$0
Haverford College	\$28,802.00	\$9,737.00	\$12,428.00	\$6,652.00	\$0	\$0
Hepatitis B Foundation	\$654.00	\$282.50	\$371.76	\$0	\$0	\$0
Lankenau Institute for Medical Research	\$136,919.00	\$63,762.36	\$73,192.85	\$0	\$0	\$0
Lehigh University	\$80,151.00	\$8,829.43	\$37,964.35	\$34,225.77	\$0	\$0
Lincoln University	\$47,451.00	\$34,262.73	\$11,096.55	\$0	\$0	\$0
Magee-Women's Research Institute and Foundation	\$971,921.00	\$379,173.21	\$592,751.31	\$0	\$0	\$0

Monell Chemical Senses Center	\$210,715.00	\$77,210.70	\$133,569.87	\$0	\$0	\$0
National Disease Research Interchange	\$59,685.00	\$10,879.88	\$48,832.96	\$0	\$0	\$0
National Surgical Adjuvant Breast and Bowel Project (NSABP) Foundation	\$851,360.00	\$7,717.06	\$379,648.61	\$210,490.28	\$99,608.39	\$134,376.91
Pennsylvania State University	\$6,637,701.00	\$257,664.00	\$681,596.00	\$1,302,116.00	\$2,236,580.00	\$2,166,285.00
Philadelphia College of Osteopathic Medicine	\$16,761.00	\$4,528.77	\$1,793.42	\$0	\$6,233.88	\$4,302.92
Pittsburgh Tissue Engineering Initiative, Inc.	\$8,731.00	\$5,618.99	\$1,876.01	\$0	\$0	\$0
Salus University	\$39,748.00	\$3,787.07	\$36,030.89	\$0	\$0	\$0
Temple University	\$2,186,053.00	\$254,153.71	\$175,940.42	\$1,085,580.06	\$177,735.21	\$494,493.84
Thomas Jefferson University	\$2,899,793.00	\$870,269.87	\$765,464.19	\$382,140.22	\$166,504.16	\$726,204.26
Treatment Research Institute	\$155,813.00	\$20,320.00	\$103,644.00	\$32,218.00	\$0	\$0
University of Pennsylvania	\$7,809,060.00	\$201,675.09	\$1,760,420.38	\$1,166,104.74	\$3,942,123.26	\$635,454.90
University of Pittsburgh	\$7,809,060.00	\$641,269.00	\$2,542,040.00	\$1,971,007.00	\$2,106,956.00	\$567,744.00
University of the Sciences in Philadelphia	\$32,583.00	\$0	\$7,343.47	\$9,002.95	\$1,192.67	\$12,948.27
UPMC McKeesport	\$17,400	Declined funds				
Wistar Institute	\$1,548,502.00	\$740,018.42	\$814,367.06	\$0	\$0	\$0
<b>TOTAL</b>	<b>\$42,126,900.00</b>	<b>\$5,147,986.17</b>	<b>\$12,002,049.69</b>	<b>\$8,284,307.48</b>	<b>\$10,498,319.18</b>	<b>\$5,947,914.19</b>

Amounts show the award amount and expenditures that include interest earned.



**Table 2. 2012-13 Formula Grants — Funds Awarded and Summary of Expenditures for State Fiscal Years 2012-13; 2013-14, 2014-15, 2015-2016, 2016-2017**

2012-13 Formula Grant Institutions	Funds Awarded	Expenditures SFY 2012-13	Expenditures SFY 2013-14	Expenditures SFY 2014-15	Expenditures SFY 2015-16	Expenditures SFY 2016-17
Albert Einstein Healthcare Network	\$61,734.00	\$13,371.03	\$48,433.14	\$0	\$0	\$0
Allegheny-Singer Research Institute	\$79,614.00	\$19,184.02	\$48,454.71	\$12,070.53	\$0	\$0
American College of Radiology	\$1,851,408.00	\$0	\$291,854.15	\$344,892.71	\$342,731.07	\$447,082.02
Carnegie Mellon University	\$1,028,926.00	\$44,624.73	\$114,736.42	\$249,259.35	\$221,865.07	\$399,770.03
Children's Hospital of Philadelphia	\$3,713,220.00	\$183,703.98	\$1,020,817.92	\$1,294,829.55	\$882,433.18	\$332,997.86
Drexel University	\$1,401,259.00	\$187,281.27	\$933,669.04	\$283,872.40	\$0	\$0
Duquesne University	\$100,224.00	\$16,090.81	\$28,347.88	\$24,634.50	\$27,824.92	\$0
Geisinger Clinic	\$110,249.00	\$15,100.54	\$58,502.56	\$28,575.68	\$0	\$0
Haverford College	\$18,238.00	\$2,445.18	\$2,869.00	\$10,235.32	\$0	\$0
Hepatitis B Foundation	\$720.00	\$360.00	\$360.28	\$0	\$0	\$0
Institute for Cancer Research <sup>1</sup>	\$2,176,686.00	\$380,307.00	\$1,722,373.00	\$77,547.00	\$0	\$0
Lankenau Institute for Medical Research	\$115,879.00	\$59,794.05	\$30,885.16	\$25,253.96	\$0	\$0
Lehigh University	\$75,533.00	\$5,032.50	\$38,180.84	\$28,315.06	\$4,730.99	\$0
Lincoln University	\$44,916.00	\$0	\$34,428.25	\$10,503.47	\$0	\$0
Magee-Womens Research Institute and Foundation	\$1,017,609.00	\$475,875.97	\$541,777.22	\$0	\$0	\$0
Monell Chemical Senses Center	\$234,200.00	\$93,320.64	\$140,941.48	\$0	\$0	\$0

National Disease Research Interchange	\$56,394.00	\$11,812.81	\$44,618.33	\$0	\$0	\$0
National Surgical Adjuvant Breast and Bowel Project (NSABP) Foundation	\$967,037.00	\$0	\$306,423.85	\$337,205.85	\$277,240.44	\$54,193.22
Pennsylvania State University	\$6,589,749.00	\$123,596.00	\$346,788.00	\$602,469.00	\$3,460,202.00	\$2,054,411.00
Philadelphia College of Osteopathic Medicine	\$14,266.00	\$5,117.90	\$452.36	\$603.92	\$6,425.90	\$1,735.54
Salus University	\$40,030.00	\$2,524.79	\$37,557.77	\$0	\$0	\$0
Temple University	\$2,220,937.00	\$938,946.07	\$629,040.74	\$330,039.09	\$163,616.89	\$159,993.78
Thomas Jefferson University	\$2,776,880.00	\$525,803.34	\$1,153,013.66	\$416,071.50	\$500,275.13	\$192,534.57
Treatment Research Institute	\$174,793.00	\$7,706.00	\$167,510.00	\$0	\$0	\$0
University of Pennsylvania	\$7,752,646.00	\$247,241.74	\$4,485,746.64	\$869,581.44	\$1,244,719.88	\$906,824.71
University of Pittsburgh	\$7,752,646.00	\$782,140.00	\$3,174,804.00	\$1,580,164.00	\$1,138,671.00	\$1,095,932.00
University of the Sciences in Philadelphia	\$29,488.00	\$0	\$15,043.35	\$14,451.85	\$0	\$0
Wistar Institute	\$1,491,186.00	\$646,178.82	\$850,245.47	\$0	\$0	\$0
<b>TOTAL</b>	<b>\$41,896,467.00</b>	<b>\$4,787,559.19</b>	<b>\$16,230,317.45</b>	<b>\$6,540,576.18</b>	<b>\$8,270,736.47</b>	<b>\$5,645,474.73</b>

Amounts show the award amount and expenditures that include interest earned.

**Table 3. 2014-15 Formula Grants — Funds Awarded and Summary of Expenditures for State Fiscal Year 2014-15, 2015-2016, 2016-2017, 2017-2018, 2018-2019**

2014-15 Formula Grant Institutions	Funds Awarded	Expenditures SFY 2014-15	Expenditures SFY 2015-16	Expenditures SFY 2016-17	Expenditures SFY 2017-18	Expenditures SFY 2018-19
Albert Einstein Healthcare Network	\$68,170.00	\$16,281.79	\$25,654.50	\$7,170.72	\$19,650.12	\$0
Allegheny-Singer Research Institute	\$42,788.00	\$0	\$42,817.14	\$0	\$0	\$0
American College of Radiology	\$1,268,999.00	\$0	\$42,891.74	\$436,452.03	\$375,983.61	\$419,573.25
Carnegie Mellon University	\$669,247.00	\$36,919.68	\$311,800.43	\$124,361.96	\$89,133.88	\$100,586.65
Children's Hospital of Philadelphia	\$3,695,893.00	\$0	\$375,561.93	\$918,225.50	\$1,044,478.36	\$1,000,747.66
Drexel University	\$1,079,197.00	\$267,468.39	\$728,740.72	\$85,011.84	\$0	\$0
Duquesne University	\$65,557.00	\$0	\$29,470.40	\$23,030.57	\$10,111.58	\$690.35
Geisinger Clinic	\$137,129.00	\$11,113.00	\$89,784.64	\$30,334.79	\$0	\$0
Hepatitis B Foundation	\$324.00	\$164.00	\$160.08	\$0	\$0	\$0
Institute for Cancer Research	\$1,246,366.00	\$300,920.00	\$630,304.00	\$315,927.00	\$0	\$0
Lankenau Institute for Medical Research	\$80,638.00	\$41,017.95	\$39,626.32	\$0	\$0	\$0
Lehigh University	\$68,785.00	\$1,171.20	\$41,868.86	\$16,394.02	\$8,348.74	\$0
Magee-Womens Research Institute and Foundation	\$837,715.00	\$347,366.67	\$490,340.81	\$0	\$0	\$0
Monell Chemical Senses Center	\$187,425.00	\$34,331.35	\$96,474.72	\$0	\$0	\$0
National Disease Research Interchange	\$41,096.00	\$0	\$41,133.48	\$0	\$0	\$0

National Surgical Adjuvant Breast and Bowel Project (NSABP) Foundation	\$606,228.00	\$35,626.02	\$221,411.52	\$144,719.35	\$62,665.90	\$113,732.29
Pennsylvania State University	\$4,608,037.00	\$243,845.00	\$1,174,416.00	\$1,444,021.00	\$1,622,296.00	\$156,246.00
Salus University	\$23,918.00	\$1,602.94	\$22,329.82	\$0	\$0	\$0
Swarthmore College	\$11,956.00	\$0	\$6,956.46	\$5,002.46	\$0	\$0
Temple University	\$1,656,950.00	\$0	\$268,334.44	\$340,282.38	\$562,136.01	\$729,476.95
Thomas Jefferson University	\$1,695,434.00	\$0	\$725,509.35	\$736,110.04	\$226,827.81	\$23,820.42
Treatment Research Institute	\$125,033.00	\$9,714.00	\$116,149.00	\$0	\$0	\$0
University of Pennsylvania	\$5,421,220.00	\$73,182.05	\$924,714.67	\$1,182,607.91	\$336,938.72	\$253,424.51
University of Pittsburgh	\$5,421,220.00	\$549,931.00	\$1,263,005.00	\$3,638,354.00	\$0	\$0
University of the Sciences in Philadelphia	\$6,940.00	\$0	\$4,850.80	\$736.59	\$0	\$0
Wistar Institute	\$1,112,835.00	\$542,391.85	\$571,177.38	\$0	\$0	\$0
<b>TOTAL</b>	<b>\$30,179,100.00</b>	<b>\$2,513,046.89</b>	<b>\$8,285,484.21</b>	<b>\$9,448,742.16</b>	<b>\$4,338,920.61</b>	<b>\$2,798,298.08</b>

Amounts show the award amount and expenditures that include interest earned.

**Table 4. 2015-16 Formula Grants**

Funds Awarded and Summary of Expenditures for SFY 2015-2016, 2016-2017, 2017-2018, 2018-2019, 2019-2020

Formula Grant Institutions 2015-2016	Funds Awarded	Expenditures SFY 15-16	Expenditures SFY 16-17	Expenditures SFY 17-18	Expenditures SFY 18-19	Expenditures SFY 19-20
Albert Einstein Healthcare Network	\$99,079.00	\$0	\$0	\$99,551.00	\$0	\$0
Allegheny-Singer Research Institute	\$63,809.00	\$3,756.06	\$37,313.17	\$22,808.17	\$0	\$0
American College of Radiology	\$1,661,159.00	\$0	\$263,393.51	\$555,194.83	\$487,442.90	\$344,710.74
Carnegie Mellon University	\$928,997.00	\$0	\$181,229.99	\$256,203.34	\$302,827.39	\$186,498.22
Children's Hospital of Philadelphia	\$5,887,731.00	\$0	\$923,647.48	\$1,645,254.22	\$1,910,766.99	\$921,558.65
Drexel University	\$1,559,434.00	\$65,156.85	\$790,982.60	\$508,564.72	\$194,729.83	\$0
Duquesne University	\$125,372.00	\$0	\$21,709.15	\$81,134.20	\$22,972.25	\$0
Geisinger Clinic	\$184,737.00	\$0	\$43,739.51	\$63,708.63	\$78,995.01	\$0
Hepatitis B Foundation	\$385.00	\$0	\$385.08	\$0	\$0	\$0
Institute for Cancer Research	\$1,876,002.00	\$429,724.00	\$1,107,578.00	\$344,859.00	\$0	\$0
Lankenau Institute for Medical Research	\$121,269.00	\$48,180.49	\$73,089.85	\$0	\$0	\$0
Lehigh University	\$105,676.00	\$0	\$19,471.31	\$45,166.09	\$15,586.21	\$26,551.46
Lincoln University	\$12,364.00	\$0	\$12,367.29	\$0	\$0	\$0
Magee-Women's Research Institute and Foundation	\$1,195,949.00	\$323,742.56	\$872,408.65	\$0	\$0	\$0
Monell Chemical Senses Center	\$258,825.00	\$0	\$258,918.14	\$0	\$0	\$0

National Disease Research Interchange	\$60,530.00	\$0	\$60,530.00	\$0	\$0	\$0
National Surgical Adjuvant Breast and Bowel Project (NSABP) Foundation	\$670,736.00	\$0	\$419,046.12	\$54,377.16	\$85,985.66	\$105,565.69
Pennsylvania State University	\$6,873,203.00	\$178,545.00	\$1,766,601.00	\$2,350,166.00	\$2,399,607.00	\$288,579.00
Salus University	\$41,363.00	\$0	\$41,373.38	\$0	\$0	\$0
Swarthmore College	\$24,066.00	\$0	\$20,973.78	\$326.04	\$0	\$0
Temple University	\$2,631,111.00	\$0	\$1,023,163.41	\$226,055.84	\$120,792.00	\$1,360,951.82
Thomas Jefferson University	\$2,592,323.00	\$0	\$508,088.44	\$724,774.48	\$792,666.57	\$601,207.32
Treatment Research Institute	\$187,040.00	\$10,810.00	\$57,157.00	\$120,663.00	\$0	\$0
University of Pennsylvania	\$8,086,121.00	\$0	\$3,665,770.09	\$837,989.14	\$1,556,437.65	\$1,373,921.30
University of Pittsburgh	\$8,086,121.00	\$513,588.00	\$1,526,598.00	\$2,098,774.00	\$3,484,188.00	\$639,171.00
University of the Sciences in Philadelphia	\$13,009.00	\$0	\$9,409.20	\$3,499.80	\$0	\$0
Wistar Institute	\$1,721,478.00	\$516,207.47	\$1,206,043.17	\$0	\$0	\$0
<b>Total</b>	<b>\$45,067,896</b>	<b>\$2,089,710.43</b>	<b>\$14,898,620.03</b>	<b>\$9,918,406.66</b>	<b>\$11,452,997.46</b>	<b>\$5,848,715.20</b>

Amounts show the award amount and expenditures that include interest earned.

**Table 5. 2016-2017 Formula Grants**

Funds Awarded and Summary of Expenditures for SFY 2016-2017, 2017-2018, 2018-2019, 2019-2020

Formula Grant Institutions 2016-2017	Funds Awarded	Expenditures SFY 16-17	Expenditures SFY 17-18	Expenditures SFY 18-19	Expenditures SFY 19-20
Albert Einstein Healthcare Network	\$68,832	\$0	\$18,408.69	\$27,592.74	\$0
Allegheny-Singer Research Institute	\$50,522	\$0	\$20,239.36	\$30,282.64	\$0
American College of Radiology	\$391,618	\$0	\$4,617.38	\$102,019.46	\$287,677.57
Carnegie Mellon University	\$517,991	\$0	\$117,690.25	\$179,370.22	\$159,134.79
Children's Hospital of Philadelphia	\$4,632,839	\$69,978.90	\$541,810.80	\$774,908.98	\$1,133,470.92
Drexel University	\$1,027,656	\$33,525.50	\$608,926.10	\$385,204.40	\$0
Duquesne University	\$129,002	\$0	\$34,618.36	\$48,597.44	\$45,775.38
Franklin and Marshall College	\$10,803	\$0	\$10,803.00	\$0	\$0
Geisinger Clinic	\$140,437	\$0	\$39,733.08	\$65,297.68	\$32,100.31
Hepatitis B Foundation	\$209	\$0	\$209.00	\$0	\$0
Institute for Cancer Research	\$1,179,993	\$180,921.00	\$498,807.00	\$507,329.00	\$0
Lankenau Institute for Medical Research	\$95,725	\$40,029.66	\$55,710.82	\$0	\$0
Lehigh University	\$102,394	\$0	\$19,518.87	\$49,625.67	\$10,321.03
Magee-Women's Research Institute and Foundation	\$996,679	\$263,847.88	\$732,889.22	\$0	\$0
Monell Chemical Senses Center	\$160,043	\$0	\$160,071.48	\$0	\$0



National Disease Research Interchane	\$45,732.00	Declined funds			
Pennsylvania State University	\$4,636,240	\$329,458.00	\$1,630,650.00	\$1,259,493.00	\$563,282.00
Salus University	\$32,241	\$0	\$32,246.96	\$0	\$0
Swarthmore College	\$15,782.00	Declined funds			
Temple University	\$1,960,548	\$210,640.62	\$1,062,571.84	\$538,865.00	\$194,702.40
Thomas Jefferson University	\$1,797,867	\$0	\$368,853.86	\$410,580.49	\$633,533.38
Treatment Research Institute	\$88,587.00	Ineligible			
University of Pennsylvania	\$5,454,400	\$0	\$1,980,904.85	\$833,389.30	\$942,395.29
University of Pittsburgh	\$5,454,400	\$322,299.00	\$2,705,241.00	\$1,288,938.00	\$648,927.00
University of the Sciences in Philadelphia	\$11,039	\$500.00	\$2,308.00	\$877.50	\$221.42
Wistar Institute	\$1,362,421	\$371,536.31	\$991,385.22	\$0	\$0
<b>Total</b>	<b>\$30,364,000.00</b>	<b>\$1,822,736.87</b>	<b>\$11,638,215.14</b>	<b>\$6,502,371.52</b>	<b>\$4,651,541</b>

Amounts show the award amount and expenditures that include interest earned.

**Table 6. 2017-2018 Formula Grants**

Funds Awarded and Summary of Expenditures for SFY 2017-2018, 2018-2019, 2019-2020

Formula Grant Institutions 2017-2018	Funds Awarded	Expenditures SFY 17-18	Expenditures SFY 18-19	Expenditures SFY 19-20
Albert Einstein Healthcare Network	\$59,512.00	\$22,827.42	\$35,532.04	\$0
Allegheny-Singer Research Institute	\$55,501.00	\$762.74	\$51,295.69	\$0
American College of Radiology	\$244,014.00	\$0	\$0	\$13,513.67
Carnegie Mellon University	\$467,894.00	\$0	\$46,564.01	\$278,043.79
Children's Hospital of Philadelphia	\$4,684,980.00	\$13,886.84	\$1,014,734.76	\$1,291,423.53
Drexel University	\$984,334.00	\$0	\$656,111.88	\$328,222.12
Duquesne University	\$112,997.00	\$0	\$37,923.45	\$44,795.38
Franklin and Marshall College	\$12,920.00	\$0	\$0	\$3,255.60
Geisinger Clinic	\$176,152.00	\$0	\$68,557.15	\$113,340.75
Hepatitis B Foundation	\$187.00	\$0	\$187.04	\$0
Institute for Cancer Research	\$1,091,646.00	\$95,061.00	\$499,751.00	\$395,745.00
Lankenau Institute for Medical Research	\$111,517.00	\$4,262.52	\$70,344.42	\$37,019.68
Lehigh University	\$111,441.00	\$0	\$84,785.72	\$22,561.72
Magee-Women's Research Institute and Foundation	\$1,201,505.00	\$61,723.01	\$715,953.84	\$423,828.23
Monell Chemical Senses Center	\$129,462.00	\$7,825.76	\$121,636.24	\$0

NRG Oncology Foundation	\$1,617,838.00	Ineligible		
Pennsylvania State University	\$5,238,380.00	\$252,700.00	\$1,198,212.00	\$563,282.00
Salus University	\$42,703.00	\$0	\$11,854.33	\$31,081.23
Temple University	\$2,239,881.00	\$0	\$311,988.00	\$668,781.34
Thomas Jefferson University	\$1,890,887.00	\$0	\$770,329.94	\$519,092.74
University of Pennsylvania	\$6,162,800.00	\$0	\$832,016.64	\$3,165,985.40
University of Pittsburgh	\$6,162,800.00	\$34,787.00	\$1,017,186.00	\$1,106,120.00
University of the Sciences in Philadelphia	\$22,390.00	\$0	\$10,087.02	\$12,302.98
Wistar Institute	\$1,486,259.00	\$23,873.83	\$532,121.23	\$917,748.87
<b>Total</b>	<b>\$34,308,000.00</b>	<b>\$517,710.12</b>	<b>\$8,087,172.40</b>	<b>\$9,936,144.03</b>

Amounts show the award amount and expenditures that include interest earned.

**Table 7. 2018-2019 Formula Grants**

Funds Awarded and Summary of Expenditures for State Fiscal Year 2018-2019, 2019-2020

Formula Grant Institutions 2018-2019	Funds Awarded	Expenditures SFY 18-19	Expenditures SFY 19-20
Albert Einstein Healthcare Network	\$48,955.00	\$0	\$6,602.90
Allegheny-Singer Research Institute	\$55,390.00	\$0	\$24,705.06
American College of Radiology	\$477,587.00	\$0	\$0
Baruch S. Blumberg	\$60,279.00	\$0	\$15,211.33
Carnegie Mellon University	\$516,169.00	\$0	\$0
Children's Hospital of Philadelphia	\$4,824,238.00	\$0	\$21,656.93
Drexel University	\$1,012,965.00	\$0	\$35,758.68
Duquesne University	\$85,398.00	\$0	\$14,122.30
Franklin and Marshall College	\$12,306.00	\$0	\$717.40
Geisinger Clinic	\$225,671.00	\$0	\$53,409.74
Institute for Cancer Research	\$1,121,111.00	\$50,008.00	\$485,445.00
Lankenau Institute for Medical Research	\$133,892.00	\$0	\$77,887.63
Lehigh University	\$116,029.00	\$0	\$0
Magee-Women's Research Institute and Foundation	\$1,306,087.00	\$0	\$456,513.52
Monell Chemical Senses Center	\$103,668.00	\$0	\$28,941.39

Pennsylvania State University	\$5,103,791.00	<b>\$0</b>	\$1,851,125.00
Salus University	\$37,725.00	\$0	\$1,962.90
Temple University	\$2,366,163.00	<b>\$0</b>	\$479,159.96
Thomas Jefferson University	\$2,014,710.00	\$0	\$382,937.08
University of Pennsylvania	\$6,004,460.00	\$0	\$18,210.53
University of Pittsburgh	\$6,004,460.00	\$0	\$2,833,629.00
University of the Sciences in Philadelphia	\$43,799.00	\$0	\$0
Wistar Institute	\$1,751,447.00	\$0	\$771,122.13
<b>Total</b>	<b>\$33,426,300.00</b>	<b>\$50,008.00</b>	<b>\$7,559,118.48</b>

Amounts show the award amount and expenditures that include interest earned.

**Table 8. 2019-2020 Formula Grants**  
**Funds Awarded for State Fiscal Year 2019-2020**

<b>Formula Grant Institutions 2019-2020</b>	<b>Funds Awarded</b>
Albert Einstein Healthcare Network	\$46,293.00
Allegheny-Singer Research Institute	\$43,359.00
American College of Radiology	\$429,444.00
Baruch S. Blumberg	\$76,234.00
Bucknell University	\$6,326.00
Carnegie Mellon University	\$552,847.00
Children's Hospital of Philadelphia	\$4,592,650.00
Drexel University	\$1,003,510.00
Duquesne University	\$56,913.00
Franklin and Marshall College	\$9,176.00
Geisinger Clinic	\$232,936.00
Institute for Cancer Research	\$1,039,104.00
Lankenau Institute for Medical Research	\$111,688.00
Lehigh University	\$110,976.00
Magee-Women's Research Institute and Foundation	\$1,132,807.00
Monell Chemical Senses Center	\$87,104.00

NRG Oncology Foundation	\$1,261,979.00
Pennsylvania State University	\$5,182,331.00
Salus University	\$25,827.00
Temple University	\$2,261,135.00
Thomas Jefferson University	\$1,907,083.00
University of Pennsylvania	\$6,096,860.00
University of Pittsburgh	\$6,096,860.00
University of the Sciences in Philadelphia	\$40,410.00
Wistar Institute	\$1,536,448.00
<b>Total</b>	<b>\$33,940,300.00</b>

Amounts show the award amount and expenditures that include interest earned.



## Appendix 2: Research Advisory Committees

### Health Research Advisory Committee (HRAC)

Chaired by the Secretary of Health, this nine-member advisory committee provides recommendations on priorities, grant accountability and evaluation procedures, as well as other related issues. HRAC meeting notices are advertised through the “PA Bulletin” and on the Department’s CURE website. Approved committee meeting minutes are posted on the CURE webpage. The committee has had 11 meetings during the SFYs 2015-2016, 2016-2017, 2017-2018, 2018-2019 and 2019-2020.

Health research grants awarded must address the priorities, which are established by the Department in conjunction with the HRAC. The priorities are reviewed annually and revised as needed. Separate priorities are established for Formula and Non-formula funds. The Formula fund health research priorities have remained unchanged since the first year of the program and are broad-based, so institutions can concentrate on their areas of research strength.

The Non-formula fund priorities have changed annually. The HRAC has identified the Non-formula priorities as traumatic brain injury and healthcare innovation (2015-2016), opioid abuse and the overdose crisis (2018-2019), and Alzheimer’s disease (2019-2020). The 2020-2021 priority is COVID-19.

### HRAC Members

#### Chair



Rachel L. Levine, MD  
Secretary of Health  
Pennsylvania Department of Health

#### Appointed by the Governor



Dwight Davis, MD  
Professor of Medicine and medical director, Cardiac Rehabilitation Program  
Pennsylvania State University School of Medicine  
Appointed by the governor (Oct. 12, 2007)



Donna Gentile O'Donnell, PhD  
Special assistant to the president and chief executive officer  
Vice president for Innovation Partnerships and Programs  
Thomas Jefferson University and Jefferson Health  
Appointed by the governor (March 20, 2017)



Michele M. Masucci, PhD  
 Professor, Department of Geography and Urban Studies vice president for research  
 Director, Information Technology and Society Research Group Temple University  
 Appointed by the governor (March 20, 2017)

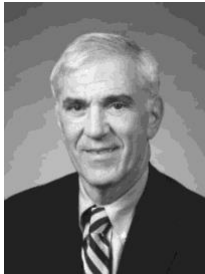


Patricia H. Vance, R.N.  
 Former senator  
 Appointed by the governor (March 20, 2017)

Appointed by the Pa. House



Michael S. Parmacek, MD  
 Chair, Department of Medicine  
 Hospital of the University of Pennsylvania  
 Appointed by the speaker of the Pa. House of Representatives (Aug. 28, 2015)



Peter G. Tombros, BS, MBA  
 Professor and executive in residence  
 Penn State University  
 Appointed by the Pa. House minority leader (Oct. 31, 2016)

Appointed by the Pa. Senate



Anantha Shekhar, MD, PhD  
 Senior vice chancellor for the Health Sciences and John and Gertrude Petersen dean,  
 School of Medicine  
 University of Pittsburgh  
 Appointed by president pro tempore of the Pa. Senate (Aug. 26, 2020)



Karen Wolk Feinstein, PhD  
 President and chief executive officer  
 Jewish Healthcare Foundation  
 Appointed by the Pa. Senate minority leader (March 26, 2012)

## Spinal Cord Research Advisory Committee (SCRAC)

The SCRAC was established and had its first meeting on Jan. 15, 2020. This advisory committee provides recommendations on spinal cord injury priorities, grant accountability and evaluation procedures, and other related issues. SCRAC meeting notices are advertised through the “PA Bulletin” and on the Department’s CURE website. Approved committee meeting minutes are posted on the CURE webpage. The committee has had two meetings during the SFY 2019-2020.

Spinal cord injury research grants will be awarded based on a tiered system. The Department in conjunction with the SCRAC will review the spinal cord injury research priorities and the tiered process annually.

The current spinal cord injury priorities include the following.

- a) Pharmacologic, biologic, medical device, brain stimulus, and rehabilitative approaches and techniques.
- b) Preference will be given to those projects and techniques that seek to change the nature and course of the injury.
- c) To ensure funded research addresses the gap in translation of discovery to human study and application, further preference will be given to research that is strategically translational or translatable relative to aims and outcomes.
- d) Finally, further preference will be given to research strategies that represent either potential or existing collaboration with industry, whether in the development and trial of biologics, pharmacologics, device or novel therapeutic rehabilitative treatments in combination with these developments.

### SCRAC Members



Jacob Chalfin, chair

Member who has a spinal cord injury

Jake was an advocate who proposed and lobbied for the bill that eventually created the SCRAC. While competing as an amateur steeplechase jockey, Jake sustained a spinal cord injury in 2010 racing in Virginia. He has a C-7 lesion ASIA B, and is paralyzed from the chest down. Jake leads an active life and is engaged in many civic endeavors.



Benjamin Abramoff, MD, MS

Member who is a physician specializing in the treatment of spinal cord injuries

Dr. Benjamin Abramoff is an assistant professor of Physical Medicine and Rehabilitation at the University of Pennsylvania and director of Spinal Cord Injury Services at the Penn Institute for Rehabilitation Medicine.



**Michael Boninger, MD**

Member who is a physician specializing in physical medicine and rehabilitation  
Dr. Michael Boninger is a professor and UPMC endowed vice chair for research in the Department of Physical Medicine and Rehabilitation at the University of Pittsburgh School of Medicine. He has joint appointments in the Departments of Bioengineering, Rehabilitation Science and Technology, and the McGowan Institute for Regenerative Medicine. He is senior medical director for post-acute care for the Health Services Division of UPMC. He is also a physician researcher for the United States Department of Veterans Affairs.



**Franklin Caldera, DO, MBA**

Member who is a physician specializing in physical medicine and rehabilitation  
Dr. Franklin Caldera is the chief medical officer at Penn Rehab and the Department of Physical Medicine and Rehabilitation vice chair for Clinical Services. He works at the University of Pennsylvania Hospital as the associate director of the Residency Training Program.



**Rory A. Cooper, PhD**

Veteran who has a spinal cord injury

Dr. Rory A. Cooper is the associate dean for Diversity and Inclusion and FISA and Paralyzed Veterans of America Distinguished Professor of Rehabilitation Science and Technology and Orthopedic Surgery at the University of Pittsburgh. He is also the founding director and the VA senior research career scientist at the Human Engineering Research Laboratories. He holds an adjunct professorship at the Robotics Institute of Carnegie Mellon University and is also a professor of Physical Medicine and Rehabilitation at the Uniformed Services University of the Health Sciences in Bethesda, Maryland.



**Alex Charlton**

Member who is a family member of a person with a spinal cord injury

As a member of the legislature, Alex was a strong advocate for disability rights and pushed for the passage of SB 31 legislation that created the Spinal Cord Disability Research Grant Program. Alex became a legislator and advocate for those with disabilities after one of his daughters suffered a spinal cord injury at birth.



**Itzhak Fischer, PhD**

Member representing a Pa. medical college or university

Dr. Itzhak Fischer is professor and chair of the Department of Neurobiology and Anatomy at Drexel University College of Medicine and co-director of the Spinal Cord Center.



**Joel Winer, MD**

Member who is a neurosurgeon

Dr. Winer is a practicing neurosurgeon at WellSpan Health York Hospital's level one trauma center.



**Elizabeth C. Tyler-Kabara, MD, PhD**

Member who is a neurosurgeon

Dr. Tyler-Kabara joined the faculty at Dell Medical School at the University of Texas in 2020. She is the Co-Chief of Pediatric Neuroscience and Chief of Pediatric Neurosurgery at Dell Children's Medical Center. In addition, she is the Director of Restorative Neurosurgery. She is helping to build the new Neuroscience program, including a Comprehensive Epilepsy Program, Neuro-oncology, Physical Medicine and Rehabilitation, and other multidiscipline programs.

## Appendix 3: Research Grants Active during SFYs

This report contains a summary of the research progress made by the grantees during the 2015-2016, 2016-2017, 2017-2018, 2018-2019 and 2019-2020 SFYs. The progress reports identified below and information on grants that ended prior to July 1, 2015, are found at <https://www.health.pa.gov/topics/Pages/E-Library.aspx>. 2019-2020 SFY CURE grants have been active from June 1, 2020 to June 30, 2020. No reports have been received, as the institutions have not received the funds.

### Albert Einstein Healthcare Network

- 2014 Formula Grant
- 2015 Formula Grant
- 2016 Formula Grant
- 2017 Formula Grant
- 2018 Formula Grant

### Allegheny Singer Research Institute

- 2014 Formula Grant
- 2015 Formula Grant
- 2016 Formula Grant
- 2017 Formula Grant
- 2018 Formula Grant

### American College of Radiology

- 2011 Formula Grant
- 2012 Formula Grant
- 2014 Formula Grant
- 2015 Formula Grant
- 2016 Formula Grant
- 2017 Formula Grant
- 2018 Formula Grant

### Baruch S. Blumberg Institute

- 2018 Formula Grant

### Carnegie Mellon University

- 2011 Formula Grant
- 2012 Formula Grant
- 2014 Formula Grant
- 2015 Formula Grant
- 2016 Formula Grant
- 2017 Formula Grant
- 2018 Formula Grant

### Children's Hospital of Philadelphia

- 2011 Formula Grant
- 2012 Formula Grant
- 2014 Formula Grant
- 2014 Non-formula Grant – Cannabidiol (CBD)

- 2015 Formula Grant
- 2015 Non-formula Grant – Traumatic Brain Injury (TBI)
- 2016 Formula Grant
- 2017 Formula Grant
- 2018 Formula Grant

#### Drexel University

- 2014 Formula Grant
- 2015 Formula Grant
- 2016 Formula Grant
- 2017 Formula Grant
- 2018 Formula Grant

#### Duquesne University

- 2012 Formula Grant
- 2014 Formula Grant
- 2015 Formula Grant
- 2016 Formula Grant
- 2017 Formula Grant
- 2018 Formula Grant

#### Franklin and Marshall College

- 2016 Formula Grant
- 2017 Formula Grant
- 2018 Formula Grant

#### Geisinger Clinic

- 2011 Non-formula Grant – Translational Genomics (TG)
- 2014 Formula Grant
- 2014 Non-formula Grant – Big Data (BD)
- 2015 Formula Grant
- 2016 Formula Grant
- 2017 Formula Grant
- 2018 Formula Grant

#### Hepatitis B Foundation

- 2014 Formula Grant
- 2015 Formula Grant
- 2016 Formula Grant
- 2017 Formula Grant

#### Institute for Cancer Research

- 2014 Formula Grant
- 2015 Formula Grant
- 2016 Formula Grant
- 2017 Formula Grant
- 2018 Formula Grant



Lankenau Institute for Medical Research

- 2014 Formula Grant
- 2015 Formula Grant
- 2016 Formula Grant
- 2017 Formula Grant
- 2018 Formula Grant

Lehigh University

- 2012 Formula Grant
- 2014 Formula Grant
- 2015 Formula Grant
- 2016 Formula Grant
- 2017 Formula Grant
- 2018 Formula Grant

Lincoln University

- 2015 Formula Grant

Magee-Women's Research Institute and Foundation

- 2014 Formula Grant
- 2015 Formula Grant
- 2016 Formula Grant
- 2017 Formula Grant
- 2018 Formula Grant

Monell Chemical Senses Center

- 2014 Formula Grant
- 2015 Formula Grant
- 2016 Formula Grant
- 2017 Formula Grant
- 2018 Formula Grant

National Disease Research Interchange

- 2014 Formula Grant
- 2015 Formula Grant

NSABP Foundation

- 2011 Formula Grant
- 2012 Formula Grant
- 2014 Formula Grant
- 2015 Formula Grant

Pennsylvania State University

- 2011 Formula Grant
- 2012 Formula Grant
- 2014 Formula Grant
- 2015 Formula Grant
- 2015 Non-formula Grant - TBI



- 2016 Formula Grant
- 2017 Formula Grant
- 2018 Formula Grant

Philadelphia College of Osteopathic Medicine

- 2011 Formula Grant
- 2012 Formula Grant

Public Health Management Corporation

- 2018 Non-formula Grant – Opioid

Salus University

- 2014 Formula Grant
- 2015 Formula Grant
- 2016 Formula Grant
- 2017 Formula Grant
- 2018 Formula Grant

Swarthmore College

- 2014 Formula Grant
- 2015 Formula Grant

Temple University

- 2011 Formula Grant
- 2012 Formula Grant
- 2014 Formula Grant
- 2015 Formula Grant
- 2015 Non-formula Grant - *TBI*
- 2016 Formula Grant
- 2017 Formula Grant
- 2018 Formula Grant
- 2018 Non-formula Grant – Opioid

Thomas Jefferson University

- 2011 Formula Grant
- 2012 Formula Grant
- 2014 Formula Grant
- 2015 Formula Grant
- 2015 Non-formula Grant – Health Care Innovation (HCI)
- 2016 Formula Grant
- 2017 Formula Grant
- 2018 Formula Grant

Treatment Research Institute

- 2014 Formula Grant
- 2015 Formula Grant

University of Pennsylvania

- 2011 Non-formula Grant – TG

- 2011 Formula Grant
- 2012 Formula Grant
- 2014 Formula Grant
- 2014 Non-formula Grant – BD
- 2015 Formula Grant
- 2015 Non-formula Grant - TBI
- 2016 Formula Grant
- 2017 Formula Grant
- 2018 Formula Grant
- 2018 Non-formula Grant – Opioid

#### University of Pittsburgh

- 2011 Formula Grant
- 2012 Formula Grant
- 2014 Formula Grant
- 2014 Non-formula Grant – BD
- 2015 Formula Grant
- 2015 Non-formula Grant - TBI
- 2016 Formula Grant
- 2017 Formula Grant
- 2018 Formula Grant

#### University of the Sciences in Philadelphia

- 2011 Formula Grant
- 2012 Formula Grant
- 2014 Formula Grant
- 2015 Formula Grant
- 2016 Formula Grant
- 2017 Formula Grant
- 2018 Formula Grant

#### Wistar Institute

- 2014 Formula Grant
- 2015 Formula Grant
- 2016 Formula Grant
- 2017 Formula Grant
- 2018 Formula Grant