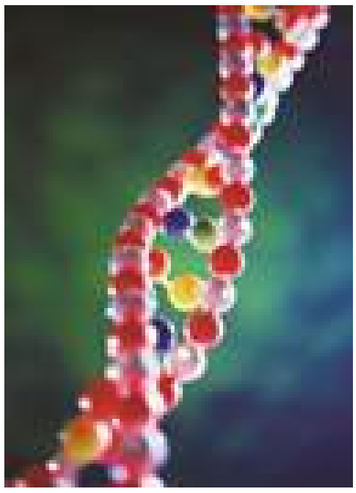

Commonwealth Health Research Board (CHRB)

2018/2019 Annual Report

Commonwealth Health Research CHRB [CHRB]
FY 2018/2019 Annual Report

Goals, Purposes and Accomplishments of the Commonwealth Health Research Board [CHRB]

The Commonwealth Health Research Board [CHRB or Board] was created by Virginia Code §32.1-162.23 to provide financial support—in the form of grants, donations, or other assistance— for research efforts having the potential of maximizing human health benefits for the citizens of the Commonwealth. Research efforts eligible for support by the Board may include traditional medical and biomedical research relating to the causes and cures of diseases, as well as research related to health services and the delivery of health care.

In accordance with Virginia Code §32.1-162.24, the Board encourages collaborative research efforts among two or more institutions or organizations, gives priority to those research efforts where Board support can be leveraged to foster contributions from federal agencies or other entities, and supports both new research efforts and the expansion or continuation of existing research efforts. CHRB grant recipients — for grant awards life-to-date — have leveraged over $35 million in additional private and federal grant funds to further their research studies. Additionally, numerous publications in peer-reviewed scientific journals and periodicals as well as presentations of the data at regional and national scientific meetings have resulted from CHRB grant funded research projects.

Commonwealth Health Research Fund [CHRF]

Pursuant to Virginia Code §32.1-162.28(E), Grant funding is calculated by an amount not to exceed six percent of the moving average of the market value of the CHRF calculated over the previous five years on a one-year delayed basis, net of any administrative fee assessed pursuant to subsection E of § 51.1-124.36. The amount may be expended in a calendar year for any purpose permitted by the CHRB/CHRF's governing statutes.

Assets of the Commonwealth Health Research Fund (CHRF) are pooled with the $78.6 billion Virginia Retirement System (VRS) investment fund (as of June 30, 2018). The estimated value of the CHRF as of June 30, 2018 was approximately $39.3 million. The current asset allocation for the VRS investment fund reflects: 41.0% public equity, 16.2% fixed income, 16.1% credit strategies, 13.5% real assets, 10.0% private equity, 2.4% strategic opportunities, and 0.8% cash.

The Department of Accounts serves as the fiscal agent for the Commonwealth Health Research Board through a Memorandum of Understanding. Audits are conducted every two years by the Auditor of Public Accounts.

Commonwealth Health Research CHRB [CHRB]
FY 2018/2019 Annual Report

Executive Summary of FY 2018/2019 Grant Process:

Institution/ Organization Identification #	Institution/Organization	Concept Papers Received	Full Proposals Requested	Presentations to the Board	Grant Awards
204	The College of William and Mary	1	0	0	0
207	University of Virginia	12	2	3	3
208	Virginia Polytechnic Institute and State University	12	4	3	1
211	Virginia Military Institute	1	0	0	0
216	James Madison University	2	1	0	0
217	Radford University	2	0	0	0
221	Old Dominion University Research Foundation	5	2	0	0
236	Virginia Commonwealth University	12	4	4	2
247	George Mason University	3	0	0	0
274	Eastern Virginia Medical School	12	3	1	1
302	Virginia College of Osteopathic Medicine	3	0	1	0
303	Lynchburg College	1	0	0	0
335	Hampton University	1	0	0	0
807	Children's Hospital of The King's Daughters	1	1	0	0
811	McGuire Research Institute	5	3	2	1
	Total	**73**	**20**	**14**	**8**

Commonwealth Health Research CHRB [CHRB]
FY 2018/2019 Annual Report

CHRB Current and Historical Funding

Since its inception, the CHRB has made 215 grant awards totaling approximately $17.8 million in grant funding to institutions of higher education and other not-for-profit or nonprofit organizations that conduct health, or health-related research in Virginia. When the required 33% matching funds are added to the CHRB funded amount, the cumulative funding totals almost $25.8 million for health research in Virginia. More detailed information is provided by year in the chart below. For a description of past CHRB grant awards and abstracts, visit CHRB's website at www.chrb.org.

Grant Year	Total Grant Awards	Number of New Grant Awards	Number of Ongoing Grant Awards [Year 2]	CHRB Grant Awards	Grantee Matching Funds	Total Project Funds
1999	9	9	0	$597,377	$272,041	$869,418
2000	11	11	0	$717,442	$305,309	$1,022,751
2001	13	13	0	$825,590	$344,954	$1,170,544
2002	12	12	0	$718,382	$344,603	$1,062,985
2003	8	8	0	$509,806	$199,999	$709,805
2004	14	10	4	$868,514	$367,202	$1,235,716
2005	10	6	4	$755,436	$305,909	$1,061,345
2006	12	8	4	$954,058	$451,983	$1,406,041
2007	12	7	5	$1,105,585	$512,493	$1,618,078
2008	12	8	4	$1,102,030	$446,400	$1,548,430
2009	8	2	6	$727,615	$310,338	$1,037,953
2010	9	7	2	$775,105	$312,808	$1,087,913
2011	11	5	6	$1,061,644	$397,212	$1,458,856
2012	8	6	2	$799,746	$327,186	$1,126,932
2013	8	5	3	$746,688	$372,766	$1,119,454
2014	11	6	5	$1,017,500	$558,485	$1,575,985
2015	13	7	6	$1,213,983	$645,285	$1,859,268
2016	11	6	5	$1,077,444	$526,569	$1,604,013
2017	10	5	5	$950,916	$422,614	$1,373,530
2018	13	8	5	$1,251,185	$577,194	$1,828,379
Cumulative Total	215	149	66	$17,776,046	$8,001,350	$25,777,396

Commonwealth Health Research CHRB [CHRB]
FY 2018/2019 Annual Report

Comparison of Grant Award Success Rates [based upon a five-year average]

Step 1: Concept Paper to Step 2: Submission of a Full Proposal	Step 2: Submission of a Full Proposal to Step 3: Presentation of the Full Proposal to the Board	Step 3: Presentation of Full Proposal to the Board to receiving a CHRB Grant Award
28%	57%	58%

Success rate from the submission of a Concept Paper to being awarded CHRB grant funding = 9%

Grants Cycle	Step 1: Concept Papers submitted	Step 2: Full Proposals requested	% success Full Proposals	Step 3: Full Proposals Presented	% success Presentations	New Grant Awards	% success Awards	From Step 1 to Awards
2018/2019	73	20	27%	14	70%	8	57%	11%
2017/2018**	66	21	32%	10	48%	6	60%	9%
2016/2017*	66	17	26%	9	53%	6	67%	9%
2015/2016	91	24	26%	10	42%	7	70%	8%
2014/2015	82	24	29%	15	63%	6	40%	7%
Cumulative from 2014/2015 to 2018/2019 [Five Year total]	378	106	28%	58	55%	33	57%	9%
Cumulative from 2014/2015 to 2018/2019 [Five Year average]	76	21	28%	12	57%	7	58%	9%

Please note:

[1] This chart excludes two-year grant awards that are approved for Year 2 funding.

[2] *Beginning with the FY2016/2017 CHRB Grant Process, the number of Concept Papers allowed for submission by any one institution or organization decreased from 15 to 10 submissions. Beginning with the FY 2018/2019 CHRB Grant Process, the number of Concept Papers allowed for submission will increase from 10 to 12 per institution or organization.

[3] **For FY2017/2018, six new grants were awarded; however, one grant award was declined making the total New Grant Award total = 5.

Commonwealth Health Research CHRB [CHRB] FY 2018/2019 Annual Report

CHRB Grant Awards and Funded Types or Categories of Research

The chart below provides statistics concerning the number of CHRB Grant Awards funded by type or category of research, from 1999 to 2018.

Key Codes	Disease/Research Area	1999 to 2018 Grant Awards	1999 to 2018 Grant Awards in Dollars [CHRB]
AG	Aging and Diseases of the Aging	6	$710,675
BD	Behavioral Disorders	6	$834,039
BV	Bacterial and Viral Diseases and Treatments	20	$2,622,381
CA	Cancer and Cancer Treatment	34	$4,116,654
CB	Cartilage and Bone	6	$676,078
CV	Cardiovascular Disease	11	$1,327,393
DI	Diabetes	11	$1,280,685
DM	Drug Metabolism	2	$125,900
DA	Drug Addiction and Alcoholism	1	$83,350
EE	Eye and Ear Diseases	6	$678,925
GE	Genetics	0	$0
GI	Gastrointestinal Diseases	3	$279,494
HS	Health Services Research	3	$181,126
HE	Hematology	4	$120,983
KD	Kidney Disease	3	$340,927
LD	Lung Disease	6	$884,083
ME	Metabolism	8	$716,082
ND	Neurological Disorders	8	$1,570,238
WH	Women's Health	8	$751,560
PD	Psychiatric Diseases	1	$200,000
WO	Wound Healing	1	$76,373
ZZ	Other	1	$199,100
	Total	**149**	**$17,776,046**

Commonwealth Health Research CHRB [CHRB]
FY 2018/2019 Annual Report

Commonwealth Health Research Board (CHRB) FY 2018/2019 Grant Awards

Principal Investigator	Submitting Institution/ Organization	Grant Award $	Recipient Matching $	Total Project Funds	Grant Title
Frank Castora, Ph.D.	Eastern Virginia Medical School	$ 100,000	$ 82,174	$ 182,174	The role of differentially expressed mitochondrial energy production genes as regulators of amyloid precursor protein processing in Alzheimer's Disease
Zhiyong Cheng, Ph.D.	Virginia Polytechnic Institute and State University	$ 100,000	$ 61,000	$ 161,000	An interdisciplinary approach to preventing obesity by targeting Fox01
Charles Clevenger, M.D., Ph.D.	Virginia Commonwealth University	$ 100,000	$ 36,131	$ 136,131	HDAC6 as a Therapeutic Target in Breast Cancer
Kathryn Cole, Ph.D.	Christopher Newport University	$ 52,369	$ 22,414	$ 74,783	Anticancer Drug Design: Structure and Function of New HDAC8 Depsipeptide Complexes
Paul Dent, Ph.D.	Virginia Commonwealth University	$ 100,000	$ 50,195	$ 150,195	Novel anti-sarcoma therapies
Nicolas Farrell, Ph.D.	Virginia Commonwealth University	$ 100,000	$ 33,000	$ 133,000	Targeting Triple Negative Breast Cancer
Babette Fuss, Ph.D.	Virginia Commonwealth University	$ 100,000	$ 33,000	$ 133,000	Regulation of myelin repair: the role of the actin cytoskeleton
Peter Kasson M.D., Ph.D.	University of Virginia	$ 100,000	$ 33,000	$ 133,000	Rapid identification of entry inhibitors and neutralizing antibodies for emerging viruses
Li Jin, Ph.D.	University of Virginia	$ 100,000	$ 73,057	$ 173,057	Could we treat acute back/leg pain with nanoparticle fullerene instead of steroid?
Alberto Musto, M.D., Ph.D.	Eastern Virginia Medical School	$ 100,000	$ 39,145	$ 139,145	Role of CD40L in Limbic Epileptogenesis
Liya Qiao, Ph.D.	Virginia Commonwealth University	$ 100,000	$ 33,000	$ 133,000	Role of TrkB.T1 in Bowel and Urinary Bladder Comorbidity
Weibin Shi, Ph.D.	University of Virginia	$ 100,000	$ 33,000	$ 133,000	Characterization of reticulocalbin 2 as a major gene contributing to atherosclerosis
Daniel Slade, Ph.D.	Virginia Polytechnic Institute and State University	$ 98,816	$ 48,078	$ 146,894	Determining the Interplay between Human and Bacterial Proteins that drive the Onset and Progression of Colorectal Cancer
		$ 1,251,185	**$ 577,194**	**$ 1,828,379**	

Commonwealth Health Research CHRB [CHRB]
FY 2018/2019 Annual Report

FY 2018/2019 Grant Award Abstracts

Eastern Virginia Medical School
Principal Investigator: Frank Castora, Ph.D.
Grant Award: $100,000
Grant Title: *The role of differentially expressed mitochondrial energy production genes as regulators of amyloid precursor protein processing in Alzheimer 's disease*

A second year of funding was awarded to support Dr. Castora and colleagues in continued study of certain abnormalities in gene expression in the brains of Alzheimer patients. The abnormally expressed genes are important for energy production and are also involved in the development of protein formations known as plaques that compromise brain cell function. An important aspect of this innovative project is the use of gene editing technology to identify targets for drugs that could delay the onset of Alzheimer's Disease and/or reduce its severity.

Virginia Polytechnic Institute and State University
Principal Investigator: Zhiyong Cheng, Ph.D.
Grant Award: $100,000
Grant Title: *An interdisciplinary approach to preventing obesity by targeting Foxo1*

The obesity pandemic is a major concern in Virginia and across the nation. Dr. Cheng has shown that a protein called FoxO1 plays a critical role in the production of fat cells. He established in cellular studies that inhibition of FoxO1 activity can suppress fat cell formation, and now will extend that work to a mouse model. In addition, he plans to develop new ways to deliver the FoxO1 antagonists in vivo, using nanoparticles. This is exciting work on a promising target (FoxO1) with potentially great significance for human health.

Virginia Commonwealth University
Principal Investigator: Charles Clevenger, M.D., Ph.D.
Grant Award: $100,000
Grant Title: *HDAC6 as a Therapeutic Target in Breast Cancer*

Funding for the first year of a 2-year project was awarded to Dr. Clevenger to explore a new target for drugs to treat breast cancer. Breast cancer is a major health problem in the US. Over 1000 Virginia women die of breast cancer each year. The PI and his team have identified histone deacetylase, HDAC6, and discovered that it can remove acetyl groups from proteins and thereby act as a signaling switch. The PI and his team hypothesize that HDAC6 globally controls breast cancer gene expression and growth, by functioning as an "oncogenic node". Phase I trials in myeloma patients have shown that small molecular inhibitors of HDAC6 are safe and could be therapeutically used in breast cancer patients. The team will conduct *in vitro* studies using the advance technique of immunoprecipitation sequencing (ChIP-Seq) in breast cancer lines to identify the genome-wide relationships between HDAC6/HMGN2/H1.2 on promoter/enhancer chromatin both in terms of occupancy and co-localization. Also planned are translational *in vivo* studies in a mouse model of breast cancer.

Christopher Newport University
Principal Investigator: Kathryn Cole, Ph.D.
Grant Award: $52,369
Grant Title: *Anticancer Drug Design: Structure and Function of New HDAC8-Depsipeptide Complexes*

Continued funding was awarded to Dr. Cole to further pursue studies on the action of two drugs already in use for the treatment of cancer. Dr. Cole and her team intend to increase the understanding of how the anti-cancer drugs, Spiruchostatin A and Xyzistatin, inhibit histone deacetylases. Histone deactylases are crucial enzymes involved in progression of many types of cancer. The team is currently engaged in molecular modeling and simulation with new analogues of the xyzistatin molecule. Dr. Cole's work may lead to new drugs for better cancer treatment.

Virginia Commonwealth University
Principal Investigator: Paul Dent, Ph.D.
Grant Award: $100,000
Grant Title: *Novel Anti-Sarcoma Therapies*

Sarcomas, while relatively rare, are a heterogeneous group of tumors that are quite difficult to treat. The drug pazopanib is an approved therapeutic for sarcomas, and Dr. Dent has found that a class of drugs known as histone deacetylase inhibitors, including sodium valproate, increase the lethality of pazopanib in sarcoma cells. This CHRB project will use a mouse model of sarcoma tumor aimed at continuing studies of pazopanib and valproate, plus another FDA-approved inhibitor (crizotinib) to generate data that will ultimately support a Phase I clinical trial of the three-drug combination. Dr. Dent and his colleagues are productive and well-versed in the required techniques, so chances are high for success of this cutting edge basic research effort aimed at a devastating type of cancer.

Commonwealth Health Research CHRB [CHRB]
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Virginia Commonwealth University
Principal Investigator: Nicholas Farrell, Ph.D.
Grant Award: $100,000
Grant Title: *Targeting Triple Negative Breast Cancer*

A second year of funding was awarded to support Dr. Farrell's continued efforts in addressing mortality associated with metastatic triple negative breast cancer. Subtypes of breast cancer are diagnosed based upon the presence or absence of three receptors: estrogen receptors, progesterone receptors and human epidermal growth factor receptor 2 (HER2). The most successful treatments for breast cancer target these receptors. If these receptors are not found in a breast cancer patient, the cancer is extremely hard to treat. Objectives for Dr. Farrell are preventing spread of the cancer tumor (metastasis) and limiting the primary tumor to a relatively localized site, thereby allowing for more effective intervention at that site. Following the hypothesis that platinum-containing drugs can be developed for their objectives, Dr. Farrell and his team are focusing on a particular drug in the class, BBR3464. This drug acts on multiple levels overcoming limitations of single-targeted drugs. It would represent a significant addition to therapy for triple negative breast cancer if new medicines are developed to simultaneously attack a range of targets. A cutting-edge aspect of this project is that the drugs sought also have the potential for personalized medicine based on genetic profiles of individual patients.

Virginia Commonwealth University
Principal Investigator: Babette Fuss, Ph.D.
Grant Award: $100,000
Grant Title: *Regulation of myelin repair: the role of the actin cytoskeleton*

A second year of funding was awarded to Dr. Fuss for studies on stimulation of endogenous progenitor cells to develop therapies for diseases in which the central nervous system (CNS) myelin sheath is affected. The most prominent of such diseases is Multiple Sclerosis (MS), but myelin injury may also play an important role in a number of neuropsychiatric diseases. Investigations will focus on a conceptually novel molecular mechanism, namely the role of a calcium/calmodulin-dependent protein kinase IIß (CaMKIIß)-actin cytoskeleton axis, in regulating myelin repair in the CNS. Actin cytoskeleton regulatory mechanisms as part of the regulation of CNS remyelination are understudied despite known defects in such mechanisms in MS. The studies now focus on the role of Camk2b in remyelination. If successful, this project will identify novel therapeutic targets for stimulating CNS repair in MS and other conditions that involve injury to the myelin sheath.

University of Virginia
Principal Investigator: Pater Kasson, M.D., Ph.D.
Grant Award: $100,000
Grant Title: *rapid identification of entry inhibitors and neutralizing antibodies for emerging viruses*

Zika virus infection is a critical public health problem. This proposal is for further development of a new microfluidic flow cell approach to discover antibodies and drugs that can inhibit the entry of Zika virus into cells (thus preventing infection); the improved technology should be adaptable to other viruses as well. Dr. Kasson is an expert in this area, and has already been involved in design and application of the assay to be used. His collaborators are excellent, innovation is high, and it is likely that valuable results will emerge.

University of Virginia
Principal Investigator: Li Jin, Ph.D.
Grant Award: $100,000
Grant Title: *Could we treat acute back/leg pain with nanoparticle fullerene instead of steroid?*

Funding for the first year of a 2-year project was awarded to Dr. Jin to explore new molecules/drugs for treating low back pain. Intervertebral disc herniation is the most common cause of low back pain which, in turn, is a leading source of disability in adults. Fullerenes are forms of carbon having a large spheroidal molecule consisting of a hollow cage of atoms, of which buckminsterfullerene was the first known example. Some fullerenes, including C60, C70 and C80 have been shown to be antioxidants due to delocalization of the π-electrons over the carbon cage, which can readily react with free radicals and subsequently deliver a cascade of downstream possessions in numerous biomedical applications. The proposed research would characterize the anti-inflammatory effects of C80, a fullerene that the PI and his team has shown to have strong radical scavenging capability, anti-inflammatory effects and anti-oxidative effects. They plan to do in vitro and in vivo studies using C80 nanoparticles. If this approach is successful, it would point to fullerenes as possible new bases for anti-inflammatory drugs to treat low back pain and other chronic pain conditions.

Eastern Virginia Medical School
Principal Investigator: Albert Musto, M.D., Ph.D.
Grant Award: $100,000
Grant Title: *Role of CD40L in Limbic Epilegtogenesis*

Funding for the first year of a 2-year proposal was awarded to Dr. Musto to pursue his hypotheses that certain inflammatory processes are central in the cause and development of temporal lobe epilepsy. There is no cure for temporal lobe epilepsy, also termed, limbic epilepsy. Temporal lobe epilepsy is the most common form of epilepsy in adults. Between 4 and 10 cases occur in every 1,000 people. Available medical treatments are not effective in controlling some limbic seizures. Early mortality and numerous related medical problems make temporal lobe epilepsy a major medical problem in the US. Numerous studies, including those of the Dr. Musto, suggest that inflammation via immune system activity contributes to LE. This proposal is based on the idea that temporal lobe epilepsy develops because immune processes alter neuronal connectivity in a region of the brain called the hippocampus. Evidence of modification of neuronal dendritic spines will be sought with special focus on the protein, CD40L, which is primarily expressed on activated immune cells, known as T cells. If successful, this project would move epilepsy research into considerations of inflammatory and immune processes and point to new therapeutic approaches.

Commonwealth Health Research CHRB [CHRB]
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Virginia Commonwealth University
Principal Investigator: Liya Qiao, Ph.D.
Grant Award: $100,000
Grant Title: *Role of TrkB.T1 in Bowel and Urinary Bladder Comorbidity*

This grant award will allow the investigator to explore a new neurological mechanism in the spinal cord which is, potentially, the cause for the sensation of bladder pain in patients suffering from irritable bowel syndrome. The association between bladder hypersensitivity and irritable bowel is observed in millions of patients, although the bladder is actually normal. The investigator will test whether specialized cells in the spinal cord (glial cells) are stimulated in episodes of irritable bowel and subsequently transmit pain signals to neighboring nerves, which culminates in registering them as bladder pain. The experiments will utilize sophisticated neurological and biochemical approaches. They may reveal new therapeutic targets for relieving patients from this comorbidity.

University of Virginia
Principal Investigator: Weibin Shi, Ph.D.
Grant Award: $100,000
Characterization of reticulocalbin 2 as a major gene contributing to atherosclerosis

A second year of funding was awarded to Dr. Shi and colleagues in support of their studies on atherosclerosis. Atherosclerosis is the primary cause of heart attack and stroke. Inflammatory responses initiated by oxidation of bad cholesterol (LDL) trapped in the arterial wall are a central feature of atherosclerosis. No effective medicines are available to stop the inflammatory process. Dr. Shi and the team have been using mouse strains in which a major locus for atherosclerosis has been identified on chromosome 9, Ath29. The hypothesis to be tested is that reticulocalbin 2 (Rcn2) is a gene that may contribute significantly to atherosclerosis. The PI and team have successfully constructed Rcn2 knockout mice. The next step is characterization of atherogenesis in endothelium-specific Rcn2 knockout mice. The importance of confirming Rcn2 as a major gene in atherosclerosis is that Rcn2 would be a good target for drug therapy in addressing the numerous cardiovascular consequences of atherosclerosis. Also, there is the possibility that Rcn2 can be used as a diagnostic biomarker. Successful completion of the project may reveal a novel therapeutic target for treatment of atherosclerosis.

Virginia Polytechnic Institute and State University
Principal Investigator: Daniel Slade, PhD.
Grant Award: $98,816
Grant Title: *Determining the Interplay between Human and Bacterial Proteins that drive the Onset and Progression of Colorectal Cancer*

One year of research support at $98,816 was granted to Dr. Slade to explore the causative relationship between a commonly found bacterial protein and colorectal cancer. According to 2017 statistics, colorectal cancer (CRC) is the second leading cause of cancer deaths among both men and women in the United States with more than 3000 cases in Virginia. Studies show that the common Gram-negative, oral bacterium, Fusobacterium nucleatum is overrepresented among all the bacteria linked to colorectal cancer tumors. Introducing F. nucleatum by injection or through feeding induces intestinal tumor formation and lowers the potency of chemotherapeutic drugs. More information is needed about the molecular mechanisms driving tumor formation and resistance to therapy. Using a diverse set of biological tools developed in Dr. Slade's laboratory, studies will be undertaken to identify and analyze how the molecular interplay between F. nucleatum and human proteins drives cellular invasion and cancer. By addressing how this bacterium induces tumor formation and chemoresistance, the applicants believe that the proposed studies have the potential to uncover novel strategies for treating and preventing CRC.

Commonwealth Health Research CHRB [CHRB]
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Commonwealth Health Research Funds available for 2018 Grant Awards

Funds available for 2018 Grant Awards

Calendar Year		Market Value as of 12/31/xx	
January 1 - December 31, 2012	Year 1	$29,885,251.45	Source: VRS Finance Division Activity Report through December 2012
January 1 - December 31, 2013	Year 2	$33,153,077.91	Source: VRS Finance Division Activity Report through December 31, 2013
January 1 - December 31, 2014	Year 3	$34,600,580.37	Source: VRS Finance Division Activity Report through December 31, 2014
January 1 - December 31, 2015	Year 4	$34,052,161.12	Source: VRS Finance Division Activity Report through December 31, 2015
January 1 - December 31, 2016	Year 5	$35,296,332.08	Source: VRS Finance Division Activity Report through December 31, 2016
	Total	$166,987,402.93	
	Average Market Value	$33,397,480.59	
Funds available for 2018 grants based on 5% of the average market value	5.00%	$1,669,874	
Less Administrative Expenses:			
Less Operating Expenses		$249,871	
Less VRS Administrative Fees		$2,600	
Total Administrative Expenses		$252,471	
Funds Available for 2018 grants less estimated expenses:		$1,417,403	
Investment of Funds			

Assets of the Commonwealth Health Research Fund [CHRF] are pooled with the **$78.6 billion** Virginia Retirement System [VRS] investment fund. The estimated value of the CHRF as of June 30, 2018 was approximately **$39.3 million**. The current asset allocation for the VRS investment fund reflects **41.0% public equity, 16.2% fixed income, 16.1% credit strategies, 13.5% real assets, 10.0% private equity, 2.4% strategic opportunities, and 0.8% cash.**

Source of CHRF balance: VRS Finance Division CHRF Activity Report through June 30, 2018 shows CHRF balance at $39,316,163.59 Barry Faison, CPA, CGMA, Chief Financial Officer, VRS

Source of VRS Total Fund market value: Performance and Asset Allocation as of June 30, 2018 = $78.6 billion www.varetire.org/investments/index

Source of VRS Total Fund market value: Performance and Asset Allocation as of June 30, 2018 www.varetire.org/ investments/index

Commonwealth Health Research CHRB [CHRB]
FY 2018/2019 Annual Report

Commonwealth Health Research Board (CHRB)
Summary of FINAL FY 2017/2018 Administrative and Grant Expenses:

FINAL FY 2017/2018 (July 1, 2017 - June 30, 2018) CHRB Administrative & Grants Expenses
Administrator Pace provided the Board with FY 2017/2018 FINAL administrative and grant expenses through June 30, 2018: [Per the Commonwealth's CARDINAL accounting system]

FY 2017/2018 Revenue and Cash Balance

CHRB Revenue and Cash Balance as of June 30, 2018	$ 227,587.29

FY 2017/2018 Final Expenses

CHRB Final Expenses as of June 30, 2018	Approved	Expenses	Difference
Administrative	$ 244,464.94	$ 256,865.39	$ (12,400.45)
Grant Disbursements	$1,119,696.00	$1,072,061.63	$ 47,634.37

The majority of the shortfall was related to expenses in the categories of Attorney Services, Department of Accounts (DOA) Fiscal Services, and Management Consultants. The Budget shortfall in the Attorney Services category resulted from a change in the manner of paying for services from a one-year lag in billing to paying a retainer advance with a cap of $10,000. The increase in expenses in the DOA Fiscal Services category resulted from salary increases for individuals assisting the CHRB. The increase in expenses for Management Consultants is a result of additional responsibilities for one of the scientific reviewers.

Commonwealth Health Research CHRB [CHRB]
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Commonwealth Health Research Board (CHRB) Members

Cynda A. Johnson, M.D., M.B.A., Chair
L. Matthew Frank, M.D., Vice Chair
Robert W. Downs, Jr., M.D.
Thomas W. Eppes, Jr., M.D.
Eric Lowe, M.D.
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