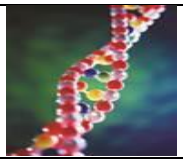
Commonwealth Health Research Board (CHRB)

2014/2015 Annual Report



Commonwealth Health Research CHRB [CHRB]
FY 2014/2015 Annual Report

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

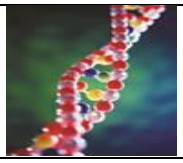
The Commonwealth Health Research Board [CHRB or Board] was created by Virginia Code § 23-278 to provide financial support—in the form of grants, donations, or other assistance— for research efforts having the potential of maximizing human health benefits for the citizens of the Commonwealth. Research 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 § 23-279, 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 made in 1999 through 2009 — have leveraged approximately $20.5 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]

The authority to invest and manage the assets of the Commonwealth Health Research Fund [CHRF] and maintain a separate accounting for the CHRF assets are provided to the Virginia Retirement System [VRS] in Virginia Code § 51.1-124.36. Assets of the [CHRF] are pooled with the VRS investment fund which had a total fund value of $68.1 billion at June 30, 2015. The estimated value of the CHRF as of June 30, 2015 was $35.8 million. The current asset allocation for the VRS investment fund reflects 43% public equity, 18% fixed income, 18% credit strategies, 11% real assets, 7% private equity, 1% strategic opportunities, and 1% cash.

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 or since inception, whichever is shorter, 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.



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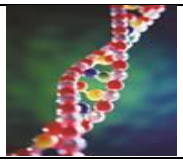
Executive Summary of FY 2014/2015 Grant Process:

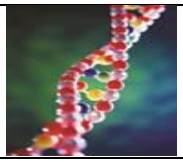
Institution/ Organization Identification #	Institution/Organization	Concept Papers Received	Full Proposals Requested	Presentations to the Board	Grant Awards
207	University of Virginia	15	6	4	1
208	Virginia Polytechnic Institute and State University	15	4	4	2
211	Virginia Military Institute	1	0	0	0
215	University of Mary Washington	1	0	0	0
216	James Madison University	5	0	0	0
221	Old Dominion University	4	0	0	0
236	Virginia Commonwealth University	15	3	1	1
242	Christopher Newport University	1	0	0	0
247	George Mason University	3	1	0	0
274	Eastern Virginia Medical School	15	7	3	1
319	Ferrum College	1	0	0	0
335	Hampton University	2	1	1	0
375	Hampden-Sydney College	1	1	1	1
804	Carilion Medical Center	1	1	1	0
811	McGuire Research Institute	1	0	0	0
860	Sentara Heart Hospital	1	0	0	0
	Total	82	24	15	6



CHRB Current and Historical Funding

Since its inception, the CHRB has made 168 grant awards totaling almost $13.3 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 approximately $19.1 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 our 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
Cumulative Total	168	123	45	$13,282,518	$5,829,688	$19,112,206



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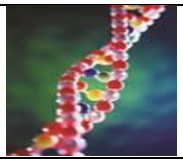
Comparison of Success Rates

Based upon a six-year average, success rates from **Step 1: Submission of a Concept Paper** to being awarded CHRB grant funding is 9%. Success rates from the **Step 1: Concept Paper** to **Step 2: Submission of a Full Proposal** to **Step 3: Presentation of the Full Proposal to the Board** to receiving a CHRB grant award, varies from year to year. The chart below provides success statistics for the last five years.

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
2014/2015	82	24	29%	15	63%	6	40%	7%
2013/2014	76	29	38%	12	41%	5	42%	7%
2012/2013	84	28	33%	14	50%	6	43%	7%
2011/2012	76	24	32%	13	54%	5	38%	7%
2010/2011	73	22	30%	11	50%	7	64%	10%
Cumulative from 2010/2011 to 2014/2015 [Five Year total]	391	127	32%	65	51%	29	45%	7%
Cumulative from 2010/2011 to 2014/2015 [Five Year average]	78	25	32%	13	51%	6	45%	7%

Please note: This chart excludes two-year grant awards that are approved for Year 2 funding.



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FY 2014/2015 CHRB Grant Awards

Year 2 of a two-year grant award

Principal Investigator	Submitting Institution/ Organization	Grant Award $	Recipient Matching $	Total Project Funds	Grant Title
Stephen Deutsch, M.D., Ph.D.	Eastern Virginia Medical School	$ 100,000	$ 135,457	$ 235,457	Identifying NMDA Receptor Interventions for the Treatment of Impaired Sociability in Autism Spectrum Disorders using an Automated High-Throughput Screening Technology
Elizabeth Gilbert, Ph.D.	Virginia Polytechnic Institute and State University	$ 100,000	$ 61,000	$ 161,000	Using anorexic and obese chickens to identify targets for appetite regulation
Kristian Hargadon, Ph.D.	Hampden-Sydney College	$ 75,000	$ 38,097	$ 113,097	The Role of Melanoma-derived Factors in Suppressing the Maturation, Activation, and T Cell Stimulatory Capacity of Dendritic Cells
Rebecca Heise, Ph.D.	Virginia Commonwealth University	$ 100,000	$ 33,000	$ 133,000	Development of Extracellular Matrix Hydrogels for Lung Regeneration
Deborah Kelly, Ph.D.	Virginia Polytechnic Institute and State University	$ 100,000	$ 33,000	$ 133,000	BRCA1-directed Transcriptional Regulation in Hereditary Breast Cancer
Michael Leopold, Ph.D.	University of Richmond	$ 42,950	$ 17,199	$ 60,149	Amperometric Biosensors Incorporating nanoparticle Networks: Monitoring Sepsis using Lactate Measurement
Michael Neale, Ph.D.	Virginia Commonwealth University	$ 99,550	$ 32,852	$ 132,402	Whole Exome Sequencing to Improve Stem Cell Transplant Outcomes
Dongfeng Pan, Ph.D.	University of Virginia	$ 100,000	$ 33,000	$ 133,000	Tumor-targeted Delivery of Farnesylthiosalicylic Acid (FTS)
Tushar Shah, M.D., M.P.H.	Eastern Virginia Medical School	$ 100,000	$ 95,380	$ 195,380	Role of Novel Complement inhibitor in improving neurological outcomes in an animal model of Neonatal Hypoxic Ischemic Encephalopathy
Judith Voynow, M.D.	Virginia Commonwealth University	$ 100,000	$ 33,000	$ 133,000	Inhaled 2-0, 3-0 desulfated heparin is a multifunctional anti-inflammatory therapy for cystic fibrosis lung disease
Laurie Wellman, Ph.D.	Eastern Virginia Medical School	$ 100,000	$ 46,500	$ 146,500	Oxytocin and Exposure Therapy: A Novel Approach for Treating PTSD
		$ 1,017,500	$ 558,485	$ 1,575,985	

CHRB Grant Awards and Funded Types or Categories of Research

The chart below provides statistics on the number of CHRB Grant Awards funded by type or category of Research, from 1999 to 2014.

Key Codes	Disease/Research Area	1999 to 2014 Grant Awards	1999 to 2014 Grant Awards in Dollars [CHRB]
AG	Aging and Diseases of the Aging	5	$510,675
BD	Behavioral Disorders	6	$734,039
BV	Bacterial and Viral Diseases and Treatments	19	$2,622,381
CA	Cancer and Cancer Treatment	27	$2,764,548
CB	Cartilage and Bone	5	$576,078
CV	Cardiovascular Disease	10	$927,399
DI	Diabetes	8	$880,685
DM	Drug Metabolism and Drug Addiction	3	$209,250
EE	Eye and Ear Diseases	4	$478,925
GI	Gastrointestinal Diseases	2	$179,494
HS	Health Services Research	3	$181,126
HE	Hematology	4	$120,983
KD	Kidney Disease	3	$340,927
LD	Lung Disease	5	$584,083
ME	Metabolism	6	$420,683
ND	Neurological Disorders	5	$770,238
WH	Women's Health	5	$505,531
PD	Psychiatric Diseases	1	$200,000
WO	Wound Healing	1	$76,373
ZZ	Other	1	$199,100
	Total	**123**	**$13,282,518**

FY 2014/2015 CHRB Grant Award Project Summaries

Stephen Deutsch, M.D., Ph.D., Eastern Virginia Medical School
Identifying NMDA Receptor Interventions for the Treatment of Impaired Sociability in Autism Spectrum Disorders using an Automated High-Throughput Screening Technology

Project Summary: Patients suffering from autism spectrum disorders (ASDs) exhibit impaired sociability, which severely affects their quality of life and often precludes them from living independently. Recently, we showed for the first time in a mouse model of ASDs that sociability can be improved pharmacologically. We know that the successful drugs act on a particular receptor in the brain, and there is a great variety of promising drugs know to affect this receptor in different ways. Since testing all those drugs in a range of doses requires a high-throughput screening technique, we partnered with engineers from Old Dominion University who are developing software that allows the quantification of sociability by automatically analyzing behavioral movies. Building on this combination of medical and engineering expertise, we propose to screen all promising drugs and to identify those that most improve sociability. Appropriate analogues of these drugs could become viable medications for human administration.

Elizabeth Gilbert, Ph.D., Virginia Polytechnic Institute and State University
Using anorexic and obese chickens to identify targets for appetite regulation

Project Summary: Because 30% of adults in the Commonwealth are considered obese (CDC), Virginia is in considerable need of an effective anti-eating strategy. New perspectives on appetite may come from studying the anorexic and obese concurrently and perhaps even more so from non-mammalian models. The body weight selected lines of chickens, the only model of anorexia and obesity originating from common ancestors, existing only at Virginia Tech, have been selected for either low (LWS) or high (HWS) juvenile body weight for 55 generations and are comprised of anorexic and obese individuals. The objective of this study is to identify differentially expressed proteins between juvenile LWS and HWS in the hypothalamus, a region of the brain involved in appetite regulation. Identified peptides/proteins will be evaluated as potential pharmacological targets for manipulating appetite.

Kristian Hargadon, Ph.D., Hampden-Sydney College
The Role of Melanoma-derived Factors in Suppressing the Maturation, Activation, and T Cell Stimulatory Capacity of Dendritic Cells

Project Summary: The studies proposed in this grant application are aimed at understanding melanoma-associated suppression of dendritic cells (DC), innate immune cells that function as critical regulators of anti-tumor immune responses. Gaining mechanistic insight into the basis for melanoma-mediated suppression of DC maturation and activation and understanding the role of melanoma-altered DC in the induction of tumor-associated T cell dysfunction will enhance our understanding of tumor immune escape. Such findings have the potential to identify novel targets for interfering with melanoma-associated DC dysfunction, and they are likely to suggest immunotherapeutic strategies designed to improve the functionality of endogenous tumor-associated DC *in situ*, the efficacy of exogenous DC-based anti-tumor vaccines, and the overall quality of anti-tumor T cell-mediated immune responses.

Rebecca Heise, Ph.D., Virginia Commonwealth University
Development of Extracellular Matrix Hydrogels for Lung Regeneration

Project Summary: Chronic Obstructive Pulmonary Disease (COPD) is the 4th leading cause of death in the United States, with at least 3,000 Virginians dying each year. Lung transplantation is the only available cure, but transplants are undesirable due to the shortage of donor lungs available, advanced age of most patients, and low survivability of lung transplant patients. Adult stem cell therapies promote regeneration of damaged lung epithelial tissue in animals through engraftment into the tissue and modulating the immune response in the lung. Injection of adult stem cells in animal lungs has fallen short because the majority of cells introduced are washed out of the lung. This proposal will develop a cell delivery system that will support adult stem cell growth in the diseased lung. The delivery matrix will also offer potential regeneration benefits. This proposal will develop a new approach to the treatment of COPD that can restore lung function.

Deborah Kelly, Ph.D., Virginia Polytechnic Institute and State University
BRCA1-directed Transcriptional Regulation in Hereditary Breast Cancer

Project Summary: Today, women diagnosed with breast cancer have a higher chance of survival than ever before especially when detected early. However, triple negative breast cancer threatens the lives of many young women in Virginia. This form of breast cancer is extremely aggressive, more likely to recur and presents major challenges for treatment. Treatment options are limited and there is currently no known cure. We will investigate the actions of a prime culprit implicated in causing the disease, the protein factor, BRCA1. We will determine, in 3D, how BRCA1 interacts with other complex proteins poised on DNA to induce cancer. Having a 3D model to understand unique protein-DNA properties will greatly contribute to the design of new drugs that interfere with cancer-causing processes. We expect this will lead to new treatment options aimed at combating triple negative breast cancer and enhancing clinical outcomes.

Michael Leopold, Ph.D., University of Richmond
Amperometric Biosensors Incorporating Nanoparticle Networks: Monitoring Sepsis using Lactate Measurement

Project Summary: Sepsis, a systemic inflammatory response triggered by infection, is the 10th leading cause of death in the U.S. with a 20% mortality rate. Identified through clinical presentation or from time-consuming laboratory blood tests, early diagnosis and monitoring of sepsis during antibiotic treatment is essential for improving patient survival from this condition. Recent clinical studies have identified lactate as a critical marker for sepsis and the ability to clear lactate from the blood as prognosticator of septic patient survival. Sensors that continuously monitor lactate in real time would represent a significant biotechnological advancement and a valuable clinical improvement for patients with sepsis. Amperometric biosensors, using enzymatic reactions to selectively detect physiological targets like lactate, can suffer from insufficient sensing performance or inadequate sensitivity. Incorporation of colloidal gold nanoparticle networks within biosensor schemes, the focus of this research proposal, may allow for improved sensing performance and miniaturization toward development of *in-vivo* devices.

Michael Neale, Ph.D., Virginia Commonwealth University
Whole Exome Sequencing to Improve Stem Cell Transplant Outcomes

Project Summary: Stem cell transplants can be lifesaving treatment for a variety of diseases, including acute leukemia, disorders of hematopoiesis and inherited metabolic disorders. However, these transplants carry a high risk (~30%) of graft versus host disease which itself can be lethal, as can other treatment complications. This project will use Illumina hiSeq and miSeq next generation sequencing of DNA samples from 40 previously stored stem cell transplant patients and their donors. Novel assessments of specific and aggregate genomic donor-recipient differences will be used to predict transplant outcomes including survival and graft versus host disease. The HLA region, minor histocompatibility loci and other immunologically relevant genomic areas will be assessed.

Dongfeng Pan, Ph.D., University of Virginia
Tumor-targeted Delivery of Farnesylthiosalicylic Acid (FTS)

Project Summary: **Objective:** Enhancing anti-cancer efficacy of farnesylthiosalicylic acid (FTS) by targeted delivery. **Introduction:** FTS is promising candidate drug for breast cancer patients with resistant disease. However, its clinical efficacy is limited due to the poor pharmacokinetics and bioavailability. We have conjugated FTS with a small molecule tumor-targeting carrier. The conjugate exhibited improved inhibition efficacy against endocrine-resistance cancer cells compared to FTS and demonstrated highly targeted uptake into mouse xenografts. In this application we will validate its therapeutic efficacy in a preclinical setting. **Hypothesis:** Tumor-targeted delivery would enhance anti-cancer therapeutic efficacy of FTS. **Methods:** The parameters of pharmacokinetics, pharmacodynamics, and toxicity in animal model will be comprehensively studied and validated using live animal imaging and other relevant techniques. **Impact:** If succeeded, it will provide a new effective treatment for patients with relapse breast cancer from primary endocrine therapy. Furthermore, the same mechanism holds the potential for targeted delivery of other chemotherapy drugs.

Tushar Shah, M.D., M.P.H., Eastern Virginia Medical School
Role of Novel Complement inhibitor in improving neurological outcomes in an animal model of Neonatal Hypoxic Ischemic Encephalopathy

Project Summary: Hypoxic-ischemic encephalopathy (HIE) is a condition in which brain damage is caused due to birth asphyxia or oxygen deprivation around the time of birth. HIE is a major contributor to the infant mortality rate in Virginia. The complement system, a critical part of inflammatory tissue damage, plays a major role in HIE. Several clinical trials have shown that reducing body temperature (hypothermia) improves survival and neurological outcomes in infants with HIE. Our bench-top experiments suggest that hypothermia increases complement activation, likely attenuating the benefits of hypothermia. Our lab has developed a compound (Peptide inhibitor of C1, PIC1) that blocks the complement system and potentially reduces brain damage due to complement activation. Our experiments aim to test PIC1 in newborn rats and demonstrate decreased brain damage. Our long-term goal is to develop PIC1 as an intervention to decrease mortality and improve neurological outcomes in infants with HIE.

Judith Voynow, M.D., Virginia Commonwealth University
Inhaled 2-0, 3-0 desulfated heparin is a multifunctional anti-inflammatory therapy for cystic fibrosis lung disease

Project Summary: Cystic fibrosis (CF) is an inherited disease that causes abnormal airway mucus and recurrent bronchitis resulting in lung failure and death. A major cause of lung injury in CF is the high concentration in the airways of neutrophil elastase (NE), a product of white blood cells that degrades proteins. There are currently no effective anti-NE therapies to prevent the relentless progression of CF lung disease. Although heparin is an effective anti-NE and anti-inflammatory drug, it cannot be used in CF due to the risk of lung bleeding. A modified heparin, 2-0,3-0- desulfated heparin (ODSH), does not cause increased bleeding, yet maintains robust anti-NE and anti-inflammatory properties. **Therefore, we propose that ODSH will be an effective inhaled therapy to prevent progression of CF lung disease.** The CHRB proposal will generate critical preliminary data to test this hypothesis and to support preclinical toxicology for an FDA investigational New Drug application.

Laurie Wellman, Ph.D., Eastern Virginia Medical School
Oxytocin and Exposure Therapy: A Novel Approach for Treating PTSD

Project Summary: Post traumatic stress disorder (PTSD) develops in a significant percentage of the population following a psychological trauma. Core symptoms include re-experiencing the traumatic event, avoidance of traumatic cues and **sleep disturbances**. The most effective therapy for PTSD is exposure therapy; however it only works for a subset of the patients due to program incompletion, unresponsiveness, or relapse following treatment. We propose to examine the effectiveness of oxytocin (OT), a natural anti-anxiety neuropeptide, in fear conditioning (FC) of rats, a model important for understanding PTSD. Aim 1 investigates the effects of OT administered prior to or following FC on future expression of fear behaviors and normalization of sleep. Aim 2 investigates the effects of OT administered prior to or following extinction (a laboratory model of exposure therapy) on the elimination of fear behaviors and normalization of sleep. Together these studies will determine the therapeutic potential of OT for augmenting exposure therapy.

Virginia Retirement System [VRS] Reports:

The authority to invest and manage the assets of the Commonwealth Health Research Fund [CHRF] and maintain a separate accounting for the CHRF assets are provided to the Virginia Retirement System [VRS] in Virginia Code § 51.1-124.36. Assets of the [CHRF] are pooled with the VRS investment fund which had a total fund value of $68.1 billion at June 30, 2015. The estimated value of the CHRF as of June 30, 2015 was $35.8 million. The current asset allocation for the VRS investment fund reflects 43% public equity, 18% fixed income, 18% credit strategies, 11% real assets, 7% private equity, 1% strategic opportunities, and 1% cash.

Grant Funding Available for FY 2014/2015 CHRB Grant Awards

Funds available for 2014 Grant Awards

Calendar Year		Market Value as of 12/31/xx
January 31 - December 31, 2008	Year 1	$22,749,283
January 31 - December 31, 2009	Year 2	$25,803,429
January 31 - December 31, 2010	Year 3	$28,320,007
January 31 - December 31, 2011	Year 4	$27,511,097.32
January 31 - December 31, 2012	Year 5	$29,885,251.45
	Total [rounded]	$134,269,068
	Average Market Value [rounded]	$26,853,814

Five-year average market value amount of $26,853,814 is based upon figures provided by the Virginia Retirement System. This amount is the average market value of the prior five calendar years.

Available Grant Funding and Funding Scenarios	Average Market Value of 4%	Average Market Value of 4.50%	Average Market Value of 5%	Average Market Value of 5.50%	Average Market Value of 6%
Average Market Value = $26,853,814	$26,853,814	$26,853,814	$26,853,814	$26,853,814	$26,853,814
Available Grant Funding based upon average market value	$1,074,153	$1,208,422	$1,342,691	$1,476,960	$1,611,229
Less estimated VRS administrative expenses	$2,600	$2,600	$2,600	$2,600	$2,600
Less estimated CHRB administrative expenses	$185,484	$185,484	$185,484	$185,484	$185,484
Grant funding available less VRS & CHRB administrative expenses	$886,069	$1,020,338	$1,154,607	$1,288,876	$1,423,145
Grant funding available less outstanding grant expenses to be paid in FY 2014/2015	$518,548	$518,548	$518,548	$518,548	$518,548
Grant funding available to award FY 2014/2015	$367,521	$501,790	$636,059	$770,328	$904,597

Commonwealth Health Research Board Fiscal Reports:

FY 2014/2015 Final Administrative Expenses

- The Board approved CHRB Administrative Budget for FY 2014/2015 amounted to $191,172.58. Based upon the Commonwealth Accounting and Reporting System [CARS] reports, CHRB administrative expenses for FY 2014/2015 amounted to $192,279.63, a difference of $1,107.05. While the administrative expenses exceed the administrative budget by $1,107.05, there was a sufficient cash balance to absorb these expenses.
- The ending cash balance at 2014/2015 year end [June 30, 2015] amounted to $197,213.77.

An explanation for some significant differences are as follows:

Object/ Subobject	Description	Approved FY 2014/2015 Admin Budget	FINAL FY 2014/2015 Expenses [as of 6/30/15]	Amount of Difference/ Shortfall	Reason for Difference
1111	Employer Retirement Contributions/ VRS	$8,111.37	$11,254.02	($3,142.65)	Changes in the Employer Retirement Contributions/VRS were made after the CHRB approved the FY 2014/2015 Administrative Budget. [Employee contributions also increased.]
1244	Management Services	$32,400.00	$30,192.00	No shortfall	Although there was no shortfall in this line item, expenses for one of the Scientific Reviewers exceeded the budget of $16,200 by $1,600.
1312/1313	Office Supplies	$3,000.00	$5,638.84	($2,638.84)	Of the shortfall, $1,051.92 was for a new Brother Color Printer [approved by Dr. Call]. The new printer should have been reflected in subject code 2217. The remaining shortfall of $1,586.92 is attributed to toners for the printer which range from $80 to $100 per toner cartridge and binders for Board meetings.
1541	Fiscal Services [DOA]	$16,200 rounded [Actual budget amount was $16,178.39]	$16,904.68	($704.68)	The Board approved the FY 2014/2015 Administrative Budget including the amount to be paid to DOA for fiscal services. However, the amount was revised [September 22, 2014] due to an increased number of vouchers which could only be calculated after June 30, 2014 and an increase in salary for individuals who assist the CHRB Administrator (download fiscal reports, year-end reconciliation, purchasing, etc.)

FY 2014/2015 Final Grants Expenses

- The Board approved CHRB Grants Budget for FY 2014/2015 amounted to $1,017,500. Based upon the CARS reports, CHRB grant expenses for FY 2014/2015 amounted to $892,551.62. Keep in mind that each grant award is paid out over different fiscal years due to the interim and final reporting requirements.

FY 2014/2015 Accomplishments and Activities

CHRB CLOUD Project [On-line Review of CHRB Grant Applications]: Work continues on the Cloud project. The supporting database structures have been built, and screens are currently being designed and coded. The existing Grant Submission system has been expanded to allow the upload of 10 files per application, file formats and naming conventions have been established so that the files will be compatible with the new Cloud system. In addition, the existing Grant Submission system was tested for security vulnerabilities by VITA, and the security improvements recommended are being incorporated into the Cloud project as well. Testing will take place in phases; it is anticipated that the first round of testing will take place in June 2015.

Recodification of Title 23: Code of Virginia: [2016 General Assembly session] Periodically, the Virginia Code Commission reviews an existing Title of the Code of Virginia for provisions that need to be reorganized, need to be updated, or have become obsolete. One of the main purposes of a recodification is to improve the organization of the Title. As sections are added, amended, and repealed over the years, the title loses its organizational structure. The Code Commission is charged with gradually revising the Code of Virginia one Title at a time. Typically, the Code Commission reviews a Title every one or two years. Title 23 of the Code of Virginia is now under review which includes the **Commonwealth Health Research Board and Fund** and the **Christopher Reeve Stem Cell Research Fund** under Title 23, Subtitle V. under "Other Educational Institutions".

CHRB Administrator Anne Pace and Assistant Attorney General Carla Collins, with approval from the CHRB Board Chairman, have been working on suggested revisions for the recodification of Title 23 as follows:

[1] Move the CHRB and Fund and the Christopher Reeve Stem Cell Research Fund to its own chapter in Title 32.1 (lines 1-187).
Regarding the placement of the CHRB's governing law within the Code, the CHRB would like to propose that it be relocated to Title 32.1 and given a new designation of Chapter 5.3 within that Title. This would group the provisions with others concerning health-related law and locates it right after provisions concerning human research and cloning. This seems to be an appropriate placement since the CHRB funds human health research and is responsible for the Christopher Reeve Fund, as well.
[2] Clarification regarding Board terms. Our understanding of the language is that if a member is appointed to serve an unexpired term, he or she can serve 2 **additional** 5-year terms subsequent to the expiration of the term for which he or she originally was appointed. The way it reads with the language now proposed, it could be interpreted to mean that the unexpired term is part of the total time for which he or she may serve. We suggest the following language: "No member shall serve more than two consecutive five-year terms, unless he or she was appointed to complete the unexpired term of another. In that case, the member shall be eligible to serve two consecutive five-year terms following the expiration of the term for which he or she originally was appointed."

CHRB Audit by the Auditor of Public Accounts [APA]: Normally the APA completes an audit of the CHRB every two years. The next audit would be for FY 2013/2014 and FY 2014/2015. However, per the APA, the next CHRB audit will not be completed until January 2016 due to staffing issues.

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