



Annual Report
for the
Commonwealth Health Research Board
Fiscal Year ending June 30, 2004

STATEMENT FROM THE CHAIRMAN

Legislation in 1997 that created the Commonwealth Health Research Fund and the Commonwealth Health Research Board moved the Commonwealth forward in promoting and protecting the health of its citizens. This initiative of the General Assembly and the Governor used the proceeds from the sale of Trigon stock to create the framework and fiscal resources for a research grant program to enhance the health of Virginia's citizens. These shares originally were valued at \$11 million. Upon investment with VRS, the value of the stock now totals \$26 million. Income from the Fund is used to make grants.

The Commonwealth established the Commonwealth Health Research Board (CHRB) to develop and implement the grant program. The board's primary responsibility is to award grants for human health research that have the potential for maximizing human health benefits for the citizens of the Commonwealth. The following chart shows the number and amount of grant funds awarded along with the amount of matching funds provided by the grantee institution.

Grant Year	Number of Grant Awards	CHRB Grant Awards	Grantee Matching Funds	Total Project Funds
1999	9	\$ 597,377	\$ 260,151	\$ 857,528
2000	11	\$ 717,442	\$ 429,489	\$1,146,931
2001	13	\$ 825,590	\$ 341,680	\$1,167,270
2002	12	\$ 718,382	\$ 344,603	\$1,062,985
2003	8	\$ 509,806	\$ 199,999	\$ 709,805
2004*	14	\$ 887,914	\$ 376,735	\$ 1,264,649
Cumulative Total	67	\$4,256,511	\$1,952,657	\$6,209,168

*Four of the 14 CHRB 2004 grant awards represent the second year of two-year grants awarded during the FY 2003/2004 CHRB grant process.

Information on these grants and the grant application process is available on the Board's web site at www.chrb.org.

Since 1998, when the CHRB was created, the Board has made 67 grant awards totaling approximately \$4.2 million. When the required 33% grantee matching funds are added to this amount, the total project funds amount to \$6.2 million. Grants have been awarded to many universities and institutions across the Commonwealth to include: University of Virginia, Virginia Commonwealth University, Eastern Virginia Medical School, Virginia Polytechnic Institute and State University, James Madison University, Sweet Briar College, Lynchburg College, Virginia Military Institute, Shenandoah University, Longwood University and the College of William and Mary. Grants have been awarded to study



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research in many areas to include: Alzheimer disease, diabetes, cancer, asthma, Lyme disease, and high blood pressure to mention a few.

We are now beginning to see successful outcomes from many studies funded by the CHRB. Many of our grantees go on to leverage new private and federal grant funds to further their research studies. In addition, our grantees are encouraged to collaborate with other universities and organizations in their efforts.

- As a result of work funded by the CHRB, a 2000 CHRB grant recipient, Dr. Cynthia Kelly from Eastern Virginia Medical School, was successful in obtaining one of eight awards for an “Allies Against Asthma” program funded by the Robert Wood Johnson Foundation, in a competition of 250 investigators. The grant is in an amount of \$1,500,000 over four years.
- As a result of funds provided by the CHRB, another 2000 CHRB grant recipient, Dr. Paul H. Ratz from Eastern Virginia Medical School, was successful in obtaining funding by the National Institute of Diabetes and Digestive and Kidney Diseases at the National Institutes of Health. The grant is in an amount of \$730,000 over four years.

As the Board continues with its work, I am honored to be a part of the process. Along with my fellow Board members, I look forward to the real benefits we have been given the opportunity and responsibility to create.

Robert P. McBride, III, Chairman
December 7, 2004



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INTRODUCTION

1996 Session of the General Assembly

In 1996, Trigon proposed to change its status as a not-for-profit health care organization to a for-profit, stock corporation. The conversion was approved by the 1996 General Assembly, and subsequently approved by the State Corporation Commission. As part of the conversion, Trigon offered either stock or cash to policyholders, based upon their participation in Trigon health insurance plans. Because the Commonwealth of Virginia was a policyholder with Trigon prior to the conversion, some 975,000 shares of Trigon stock conveyed to the Commonwealth. These shares originally were valued at \$11 million. Upon investment with VRS, the value of the stock now totals approximately \$25 million.

Language in Chapter 912, the 1996 Appropriation Act, called for a legislative study committee to determine the disposition of the Trigon stock, "with the objective of fostering ongoing support of medical and bio-medical research." With the assistance of an advisory committee comprised of representatives from health care and higher education research organizations, the study committee released its recommendations in December 1996.

1997 Session of the General Assembly

House Bill 2581 and Senate Bill 1047, adopted by the 1997 Session of the General Assembly, contained recommendations calling for the creation of the Commonwealth Health Research Board and the Commonwealth Health Research Fund. The board's primary responsibility is to award grants for human health research that have the potential for maximizing human health benefits for the citizens of the Commonwealth.

2000 Session of the General Assembly

During the 2000 Session of the General Assembly, legislation relating to the Master Tobacco Settlement provided an additional \$2.5 million each year of the biennium to the Commonwealth Health Research Fund. These funds were frozen by Executive Order 74 issued by Governor Gilmore.



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2002 Session of the General Assembly

Legislation passed during the 2002 General Assembly session, SB 296 and HB 1286, authorizes the Commonwealth Health Research Board to employ staff as is necessary to perform the Board's duties. It removes the Director of the State Council of Higher Education for Virginia as Executive Secretary for the Board. Lastly, the language provides that no more than six percent of the moving average of the market value of the Fund, calculated over the previous five years, may be expended in a calendar year. This calculation is similar to how endowments set their spending policies.

Also during the 2002 Session, an amendment to House Bill 30, as Introduced, was put forth which would have impacted the Commonwealth Health Research Board. This amendment directed the State Comptroller to transfer \$2,300,000 from the Commonwealth Health Research Fund to the general fund, prior to June 30, 2003. This amendment was rejected.

2003 Session of the General Assembly

As part of the CHRB grants application process, there are three steps that take place: Step one requires the submission of a concept paper. Step two, the Board asks applicants, whose concept papers are judged to have potential for successful research outcomes, to submit full proposals. Step three, the Board invites finalists from among individuals who submitted a full proposal to make a presentation in-person to the Board. During each of these steps, confidential scientific information is presented either in a written or verbal format. In addition, the scientific concepts submitted in an application to the CHRB are new, unpublished ideas that are the intellectual property of the investigator. Release of this information prior to funding by the CHRB could result in use of the ideas by a competing investigator.

Legislation passed during the 2003 General Assembly session, HB 2658, provides the Commonwealth Health Research Board with an exemption to the Freedom of Information Act (FOIA) to protect scientific information presented to the CHRB as part of the grants application process and to close the review portions of CHRB meetings that discuss this confidential information.

Both these proposed amendments – the maintenance of privacy of the applications under review, and closing of the review portions of CHRB meetings are in keeping with procedures followed by Federal agencies that have grant programs, such as the National Institutes of Health and the National Science Foundation.



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**MISSION AND DUTIES OF
THE COMMONWEALTH HEALTH RESEARCH BOARD**

Section 23-278 of the *Code of Virginia* identifies the purpose of the Commonwealth Health Research Fund and the responsibilities of the Board:

There is hereby created, as an independent body, the Commonwealth Health Research Board. The purpose of the Board shall be to provide financial support, in the form of grants, donations, or other assistance, for research efforts that have the potential of maximizing human health benefits for the citizens of the Commonwealth. Research efforts eligible for support by the Board shall 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. (§ 23-278.A)

The Board's primary responsibility is to "*provide financial support, in the form of grants, donations, or other assistance, for research efforts that have the potential of maximizing human health benefits for the citizens of the Commonwealth.*" Grants can be made to agencies of the Commonwealth, Virginia's public and private not-for-profit institutions of higher education, and Virginia-based nonprofit organizations. The Board determines the criteria for the awards.

The specific duties of the Board are to:

1. Establish specific criteria and procedures governing its decisions to support research efforts consistent with its purposes, including, but not limited to, (i) encouraging collaborative research efforts among two or more institutions or organizations, (ii) giving priority to those research efforts where Board support can be leveraged to foster contributions from federal agencies or other entities, and (iii) supporting both new research efforts and the expansion or continuation of existing research efforts;
2. Establish requirements for the submission of research proposals, including but not limited to, (i) a clear statement of the problem or opportunity to be addressed; (ii) the specific objectives; (iii) a description of how the results will maximize human health benefits for the citizens of the Commonwealth; (iv) a budget for the research effort including other anticipated sources of financial assistance; and (v) the time frame for the conduct of the research;
3. Evaluate the proposals in accordance with the criteria established by the Board and the provisions of this chapter; and
4. Evaluate the implementation and results of all research efforts receiving support from the Board. (§ 23-279)

In order to carry out its purpose, the Board shall have the power to:



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1. Make grants or other expenditures or disbursements from the Fund to provide support for research efforts approved by the Board in accordance with the purposes of this chapter; however, the Board shall not be obligated to make annual or other periodic disbursements or expenditures;
2. Contract for the services of consultants to review research proposals and to assist in the evaluation of the research efforts funded by the Board;
3. Accept, hold, administer, and solicit gifts, grants, bequests, contributions or other assistance from federal agencies, the Commonwealth, or any other public or private source to carry out the purposes of this chapter;
4. Enter into any agreement or contract relating to the acceptance or use of any grant, assistance or support provided by or to the Board, or otherwise in furtherance of the purposes of this chapter; and
5. Perform any lawful acts necessary or appropriate to carry out the purposes of the Board. (§ 23-281)



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SIGNIFICANT CHRB ACTIVITIES

The Commonwealth Health Research Board (CHRB) met four times between July 1, 2003 to June 30, 2004. During this year, the Board completed its fifth grant competition and evaluated the outcomes of previous CHRB grants that had completed their research projects.

Grant competition and awards

Building upon its success in its first five years in developing grant guidelines and procedures, the Board made its sixth round of funding. This competitive grant program builds on the *Code of Virginia* provisions concerning the Board and consists of three steps: 1) submission of preliminary concept papers, 2) submission of full proposals, and 3) presentations by finalists.

Between the period July 1, 2003 to June 30, 2004, the Board received and evaluated applications for CHRB grant funding to be awarded July 1, 2004 (FY 2004/2005 CHRB Grant Process). Applicants may request funding to support projects over either a one-year or a two-year period. The maximum amount of a one-year award is \$100,000. The maximum amount for a two-year award is \$200,000. However, no more than \$100,000 will be provided in the first or second year. The number of one-year and two-year awards that the CHRB anticipates it will make each year, is dependent upon the amount of funds available and the number of requests received for each category.

The following Virginia-based entities are eligible for grant consideration from the CHRB:

- State-supported institutions of higher education,
- Private, not-for-profit institutions of higher education established in Virginia,
- Agencies of the Commonwealth of Virginia, and
- Nonprofit organizations exempt from income taxation under Section 501 c (3) of the Internal Revenue Code and with their principal offices and programs in the Commonwealth of Virginia.

Requests for funding are reviewed in terms of the following criteria to evaluate the likelihood that the proposed research will have a substantial impact on the pursuit of the CHRB's purposes and goals:

- **Significance:** Does the research address an important problem? If the aims of the application are achieved, how will scientific or other knowledge be advanced? What will be the effect of this research on the concepts, methods, or practices in this field?
- **Collaboration:** Will the initiative employ useful collaborative arrangements among two or more institutions or organizations either within or outside the Commonwealth of Virginia? (The Board encourages the submission of collaborative applications.)



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- **Leverage:** How will funding provided by the CHRB be used to leverage additional contributions from other entities? (The CHRB encourages the submission of applications that employ leveraging.)
- **Approach:** Are the conceptual framework, design, methods and analyses adequately developed, well integrated, and appropriate to the aims of the project?
- **Innovation:** Does the project employ novel concepts, approaches or methods? Are the aims original and innovative? Does the project challenge existing paradigms or develop new methodologies or technologies?
- **Investigator:** Is the project director experienced and qualified to direct and manage the project? Are project staff experienced with research and evaluation processes? What amount of time will the project director contribute to the project?

Step One: Submission of a Concept Paper

The first step in the CHRB grant process is the submission of a concept paper. October 1, 2003 was the original deadline for the submission of a concept paper. Due to the inclement weather and devastation from Hurricane Isabel, the deadline for the submission of concept papers to the CHRB was extended to Wednesday, October 8, 2003. A total of 44 concept papers were received by the revised deadline with a total of 27 full proposals being requested.

Step Two: Submission of Full Proposals

February 2, 2004 was the deadline for submission of full proposals. Of the 27 full proposals requested, 26 full grant proposals were reviewed (one full proposal requested was not received). Of the 26 full grant proposals reviewed, 14 proposals were recommended to move forward to the next and final step in the grant process, a grant presentation by the applicant, or Principal Investigator.

Step Three: Presentations by Principal Investigators

At the May 4, 2004 CHRB meeting, the Board heard presentations from 14 Principal Investigators. Of the 14 finalists, ten were recommended to receive a CHRB Grant Award for the 2004.2005 fiscal year.

The chart below reflects the advancement of grant applicants by institution or organization throughout the CHRB FY 2004/2005 Grant process:



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Institution	Concept Papers Received	Recommended to submit Full Proposal	Recommended to present Full Proposal to Board	Awarded a CHRB grant for 2004/2005
Eastern Virginia Medical School	15	8	3	2
George Mason University	1	0	0	0
Gwaltney School	1	1	1	1
James Madison University	2	2	1	1
LifeNet	2	0	0	0
Lynchburg College George Mason College	1	1	1	1
Norfolk State University	1	1	1	0
Old Dominion University	2	1	1	0
Shenandoah University	2	1	1	1
Sweet Briar College	1	1	1	1
The College of William and Mary	2	1	1	1
University of Virginia	1	1	1	0
Virginia Commonwealth University	4	3	1	1
Virginia Polytechnic Institute and State University	7	5	1	1
Virginia Union University	1	1	0	0
YMCA of South Hampton Roads	1	0	0	0
Total	44	27	14	10

Below is the listing of grant awards to include 10 grants awarded as part of the FY2004/2005 grant process and 4 grants awarded as part of the FY2003/2004 grant process which will begin the second year of their two-year grant award (shaded rows).



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#	Submitting Institution/ Organization	Grant Title	Principal Investigator
17	Sweet Briar College	Synergistic Bioactivity Testing of Extracts from Medicinal Herbs of the United States Virgin Islands	John J. Beck
12	The College of William and Mary	Comparative Genomics of Virulent and Avirulent strains of the Gastric Pathogenic Bacterium, <i>Helicobacter pylori</i>	Mark H. Forsyth
21	Eastern Virginia Medical School (EVMS)	Illegitimate Recombination Repair Activity as a Predictor of Radiation-induced normal tissue complications	Richard A. Britten
25	Lynchburg College George Mason College	Protein phosphorylation after <i>Francisella tularensis</i> infection	Allison B. Jablonski and Monique van Hoek
13	Eastern Virginia Medical School (EVMS)	Peroxisome proliferator activated receptors and sodium transport in obesity hypertension	Anca D. Dobrian
35	James Madison University	Biochemical Analysis of Healing and Nonhealing Wounds	C. David Jaynes
43	Virginia Commonwealth University	The role of Oligodendrocytes in neuronal survival	Jeffrey L. Dupree
4	Virginia Polytechnic Institute and State University	Modulating Enzyme Based Amyloid Agglomeration: Protease Inhibition measured by Sedimentation	B. J. Love
5	Gwaltney School	EEG Biofeedback Treatment Project for At-Risk Adolescent females in Residential Care	Roger deBeus
28	Shenandoah University	Evaluation of Nesiritide vs Standard Therapy on Length of Stay in Post Operative Coronary Artery Bypass Graft Patients	Marcia Brackbill
6	Virginia Commonwealth University	Signaling Pathways in Metastatic Head and Neck Cancer Cells	W. A. Yeudall
27	University of Virginia	Renal Perfusion measurements in Renal Arterial Disease	John F. Angle
15	University of Virginia	Development of a Novel Prostate Cancer Therapy	Daniel Gioeli
19	Eastern Virginia Medical School (EVMS)	Improving the Immune Response to influenza vaccination in older adults by modulating the innate immunity	Yuping Deng

A list of the recipients, the titles of their research projects, the amounts that they received, and the amounts of the matching funds provided by their institutions is attached. Similar lists for the first five rounds of funding are on the Board's web site at www.chrb.org.



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Conditions of Grant Acceptance

When the Board makes grants, it requires that recipients and their sponsoring institutions sign Grant Agreements that define the obligations of the recipients. The Grant Agreement with the CHRB delineates the terms and specific objectives of the project. Once a grant recipient and the sponsoring institution have signed the Grant Agreement, the Board authorizes that 75% of the grant funds be disbursed to the recipient organization. The final 25% of the grant is disbursed only after the investigator and the recipient organization have submitted the final scientific and financial reports.

Recipient obligations in the Grant Agreement include the following:

- Submission of scientific and fiscal reports at specific times.
- Return of grant funds that have been received when an investigator is unable to conduct the awarded research.
- Submission of any additional requested data and reports on a timely basis, and to participate in other evaluation efforts required by the CHRB.
- Completion of research identified within the time period for which the award was made including both the research and compilation of results.
- Obtain, at its own expense, any and all patent, copyright, trade secret, proprietary information, or other intellectual property licenses necessary in order to fully carry out the project described in the recipient organization's grant application and in any amendment or change to the project subsequently approved or permitted by the CHRB.
- Assurance that all licenses, copyrights, patents, inventions, or income-producing processes discovered or arising from research supported in whole or in part by the CHRB, which begin to produce income within five years of the start date, shall be timely reported to the CHRB.
- Reimbursement to the CHRB for the full amount received from the CHRB to execute the proposal if the income from invention, patents or income-producing processes, exceeds \$150,000 for CHRB grants up to and including \$50,000, or exceeds \$300,000 for CHRB grants over \$50,000 (net of any direct out-of-pocket patenting costs paid by the organization).



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Scientific Consultant to the Board

James F. O'Donnell, Ph.D. serves as the scientific consultant to the Commonwealth Health Research Board, and heads the Board's review panel. Dr. O'Donnell received his B.S. in Biology from St. Louis University and his Ph.D. in Biochemistry from the University of Chicago. He then spent ten years at the University of Cincinnati, College of Medicine, in the Departments of Medicine and Biochemistry as an assistant/associate professor. His research field was in nucleic acid metabolism and liver disease. In 1968, Dr. O'Donnell joined the National Institutes of Health (NIH) in Bethesda, Maryland where he served for 31 years as a scientist administrator in the extramural programs. His positions included the Deputy Director of the Division of Research Resources and later the Director of the Division of Extramural Programs under the Deputy Director of Extramural Research of NIH. Dr. O'Donnell was a charter member of the Federal Senior Executive Service. He retired from the NIH in April of 1999.