

***Virginia Biosciences Health
Research Corporation***
dba: Virginia Catalyst

Achieving Competitive Critical Mass Through Collaboration

**Annual Report for Fiscal Year 2023
Submitted October 1, 2023 to:**

**Secretary of Commerce and Trade, the Chairs of the House
Appropriations and Senate Finance and Appropriations Committees,
the Director of the Department of Planning and Budget, and
Virginia Innovation Partnership Authority**



By The Numbers

Results through August 2023*



AWARDED vs. ECONOMIC IMPACT

Through Round 14

● Awarded
 ● Matching Funds
 ● Follow-on Funding



ROI of 28:1



COLLABORATIVE STRENGTH

57 Projects involving 44 Industry Partners in collaboration with Virginia Universities



VBHRC Virginia Catalyst is a not-for-profit 501(c)(3) corporation created by the Virginia General Assembly and funded by the Commonwealth's General Fund and six Virginia public research universities: EVMS, GMU, ODU, UVA, VCU, and VT. Our mission is to stimulate and cultivate collaborations and partnerships among Virginia's research universities, major health systems, and industry to produce positive economic impact within the Commonwealth. Michael Grisham, CEO

*one-time COVID-19 Funding Round not included in totals

**jobs created does not include indirect jobs

Forward

The 2022 Special Session I, Assembly, Chapter 2 (approved June 22, 2022), Item 127 provides funding for the Virginia Biosciences Health Research Corporation (VBHRC), a 501(c)(3) non-stock corporation, to serve as a research consortium and catalyst to accelerate and focus in the biosciences research at Virginia’s universities (J.1).

This item also includes the requirement that you are provided, by October 1 of each year, a written report summarizing the activities of the VBHRC consortium. The report is to include a summary of how any funds disbursed to the consortium during the previous fiscal year were spent, and the consortium’s progress during the fiscal year in expanding upon existing research opportunities and stimulating new research opportunities in the Commonwealth (J.6).

We are pleased to submit to you the following report to detail progress made on core objectives, with a focus on the results achieved during Fiscal Year 2023. Please note, as with our prior annual reports, we are continuing our practice of including details of ongoing efforts into the current fiscal year.

Statement from Mike Grisham, CEO

“On behalf of VBHRC Virginia Catalyst and its Board of Directors, we thank you for your continued support of these important and innovative efforts to advance commercialization of Virginia’s life science innovations and create high-paying jobs in Virginia. This is achieved through collaborations with our research universities, health systems, and industry.

As always, if you have any questions or requests, or if we can be of any assistance, please do not hesitate to contact us!”

Mike Grisham
President and CEO
mgrisham@VirginiaCatalyst.org
804-543-5200

Suzanne Zeta, PhD, MBA
Chief Operating Officer
suzeta@VirginiaCatalyst.org
804-937-3919

**Virginia Biosciences Health Research Corporation
Annual Report for Fiscal Year 2023
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Overview of Virginia Biosciences Health Research Corporation

Established in 2013 as Virginia's research consortium the Virginia Biosciences Health Research Corporation (VBHRC) was founded through the vision and joint efforts of the Commonwealth of Virginia and the five (5) founding members consisting of Virginia's premiere research institutions: Virginia Commonwealth University, Eastern Virginia Medical School, George Mason University, Virginia Tech, and the University of Virginia. In 2014, Old Dominion University became the sixth member institution. In October 2016, William & Mary joined as the seventh member institution of this consortium but withdrew membership in 2021.

As stated in the 2022 Special Session I, Assembly, Chapter 2 (approved June 22, 2022), Item 127, the overarching purpose and focus of VBHRC is to stimulate and cultivate collaborations and partnerships among Virginia's research universities, major health systems, and industry to produce a positive economic impact within the Commonwealth. This is measured by tracking job creation and follow-on funding for commercializing Virginia's innovations. VBHRC's strategic initiatives increase corporate-sponsored, federal, industry, and philanthropic research funds brought into Virginia, resulting in commercialization of new technologies, formation of new companies, creation of jobs, and expansion of bioscience companies in Virginia.

VBHRC is governed by a Board of Directors (BOD)¹ with primary duties that include:

- Reviewing and approving the annual budget
- Reviewing annual and periodic financial statements and information
- Reviewing Chief Executive Officer's performance annually, establishing salary
- Reviewing and approving all program grant projects
- Reviewing and approving all supplier contracts over \$25,000
- Reviewing and approving all non-budgeted expenditures over \$10,000
- Reviewing and advising staff on internal controls and accounting policies and procedures
- Annually contracting for an audit of the VBHRC and meeting at least annually with the external auditor to review the results of the audit.

The BOD is comprised of a maximum of sixteen directors, nine of whom are ex-officio directors as follows:

- Secretary of Commerce and Trade of Virginia
- President & Chief Executive Officer, Virginia Economic Development Partnership Authority
- President of each of the (seven) applicable institutions

Each of the nine ex-officio directors may designate an employee of his or her agency or institution to act in his or her stead. The remaining seven directors represent the United States Department of Veterans Affairs, health care system providers in Virginia, life sciences companies, venture capital firms, and the biosciences industry in Virginia.

¹ [Appendix A](#) lists members of VBHRC Board of Directors, Project Management and Oversight Panel, and Management

The 2022 Special Session I, Assembly, Chapter 2 (approved June 22, 2022), Item 127, J.1. provides funding for VBHRC for fiscal years 2023 and 2024 to achieve established core objectives. In addition, the President of each member university agreed to commit a cash contribution of \$50,000 each year.² As stated in the aforementioned Acts of Assembly, along with supporting the administrative, promotional and legal costs of establishing and administering the consortium, funding may be used to develop or maintain investments in research infrastructure tools to facilitate bioscience research (Item 127:J.2), and to capture and perform research in the biosciences (Item 127:J.3).

In fiscal year 2023, VBHRC was funded \$3,750,000 by the Commonwealth of Virginia and \$350,000 through the member institutions (\$50,000 per each year of the seven (7) member institutions), bringing the total funding for fiscal year 2023 to \$4,050,000.

See [Appendix C](#) for Fiscal Year 2023 Financial Statements, Independent Auditor's Report, and Fiscal Year 2024 Pro-Forma Budget.

Core Objectives

The aforementioned Acts of Assembly also include core objectives of VBHRC, a research consortium, to contract with private entities, foundations and other governmental sources to:

- capture and perform research in the biosciences,
- promote the development of bioscience infrastructure tools which can be used to facilitate additional research activities, and
- develop or maintain investments in research infrastructure tools to facilitate bioscience research.

The overarching purpose of these core objectives and efforts is to have a positive economic impact to the Commonwealth by increasing corporate-sponsored research resulting in commercialization of new technologies, formation of new companies, creation of jobs, and expansion of bioscience companies in Virginia.

VBHRC, doing business as *Virginia Catalyst*



As VBHRC expanded its work and initiatives of collaborations broadly across Virginia as well as funding from corporate-sponsored, federal and industry outside of Virginia, the need and benefits of an effective branding and marketing became apparent. In June 2017 the Commonwealth of Virginia, State Corporation Commission recognized VBHRC doing-business-as the *Virginia Catalyst*.

² [Appendix B](#) provides details regarding the funding history of VBHRC

Progress on Core Objectives

Grant Funding Program

Overview and Objectives

The Virginia Catalyst conducts formalized, competitive Grant Funding Rounds to:

- encourage collaborative partnerships between two or more Virginia research universities and an industry partner,
- fund the development and commercialization of life science projects that address major unmet needs for improving human health,
- accelerate commercialization of Virginia research university inventions and discoveries,
- increase Virginia's national and global competitiveness in the life sciences by creating critical mass through collaborations between and among Virginia's research universities, health systems, and industry partners,
- create jobs and economic growth in Virginia.

The eligibility requirements for obtaining funding through the Virginia Catalyst Grant Rounds are:

- Substantive collaboration between investigators from at least two (2) Virginia research universities³ and an industry partner,
- matching funds of at least 1:1 for the project. The match must be a cash dollar-for-dollar match, not in-kind services, nor a waiver of indirect overhead charges. Matching funds are verified by the Virginia Catalyst.

Awards range from \$200,000 to \$800,000 per project and are non-dilutive. All Virginia Catalyst funding is disbursed over the project period based upon verified completion of objective and measurable milestones. The Virginia Catalyst disburses the funds directly to the Prime University, not the industry partner. The Prime University then disburses funds to the Partner University and the Industry Partner.

Project Management and Oversight Panel

The Project Management and Oversight Panel⁴, the CEO, and the Board of Directors developed and approved criteria and standardized processes which govern the Virginia Catalyst Grant Rounds including:

- Project solicitation from institutions and companies
- Determination that eligibility requirements have been satisfied
- Project review for scientific rigor and impact on unmet needs for improving health

³ Virginia research universities and member institutions of the Virginia Catalyst (fiscal year 2023): Eastern Virginia Medical School, George Mason University, Old Dominion University, University of Virginia, Virginia Commonwealth University, and Virginia Polytechnic Institute and State University

⁴ [Appendix A](#) lists members of VBHRC Board of Directors, Project Management and Oversight Panel, and Management

- Project review for abilities of commercialization, obtaining follow-on funding, and job creation
- Progress reporting by the project team including progress towards milestones and continuation of the project
- Related project management issues and decisions.

Fiscal Year 2023 Awarded Projects⁵

Virginia Catalyst concluded Grant Round 13, conducted Grant Round 14, and opened Grant Round 15 in fiscal year 2023. See [Appendix D.1](#) for a summary of all awarded projects to date.

Grant Round 13⁶

In September 2022, Virginia Catalyst funded four (4) projects for a total amount of \$2.25 million. These projects brought a total of \$2.9 million in matching funds and involved:

- Four (4) Virginia research universities, and
- Four (4) industry partners

As of June 30, 2023, each of these projects were open and progressing towards milestones as per their respective award agreements. Three of these projects have already secured a combined \$7.78 million in follow-on funding.

Grant Round 14⁷

In May 2023, Virginia Catalyst funded four (4) projects for a total amount \$2 million. These projects brought a total of \$2 million in matching funds and involved:

- Four (4) Virginia research universities, and
- Four (4) industry partners

As of June 30, 2023, each of these projects were open and progressing towards milestones as per their respective award agreements. Two of these projects have already secured a combined \$500,000 in follow-on funding.

Grant Round 15⁸

In April 2023, Virginia Catalyst opened Grant Round 15.

Economic Returns⁹

The Virginia Catalyst awarded its first Grant Rounds in December 2013, and as of June 30, 2022, has conducted fourteen (14) cycles of Grant Rounds, along with a one-time COVID-19 Grant Round. See [Appendix D.2](#) for details on economic returns to date.

⁵ [Appendix D.1](#) provides a summary of all awarded projects to date

⁶ [Appendix E.3](#) Press Release: Grant Round 13: Awarded Projects

⁷ [Appendix E.4](#) Press Release: Grant Round 14: Awarded Projects

⁸ [Appendix E.5](#) Press Release: Grant Round 15: Call for Proposals

⁹ [Appendix D.2](#) provides details on economic returns to date

Cumulatively through June 30, 2023

***The Virginia Catalyst funded a total of
\$27.4 million to 57 collaborative projects.***

***Together these projects brought a total of:
\$44.5 million in matching funds, and involved
Six (6) Virginia research universities, and forty (44) industry partners
And resulted in: \$821 million in follow-on funding, and
400 new high-paying jobs created in Virginia***

Catalyst Life Sciences Conference

As stated in the 2022 Special Session I, Assembly, Chapter 2 (approved June 22, 2022), Item 127, J.1., another responsibility of VBHRC is to “...*promote the development of bioscience infrastructure tools which can be used to facilitate additional research activities.*”

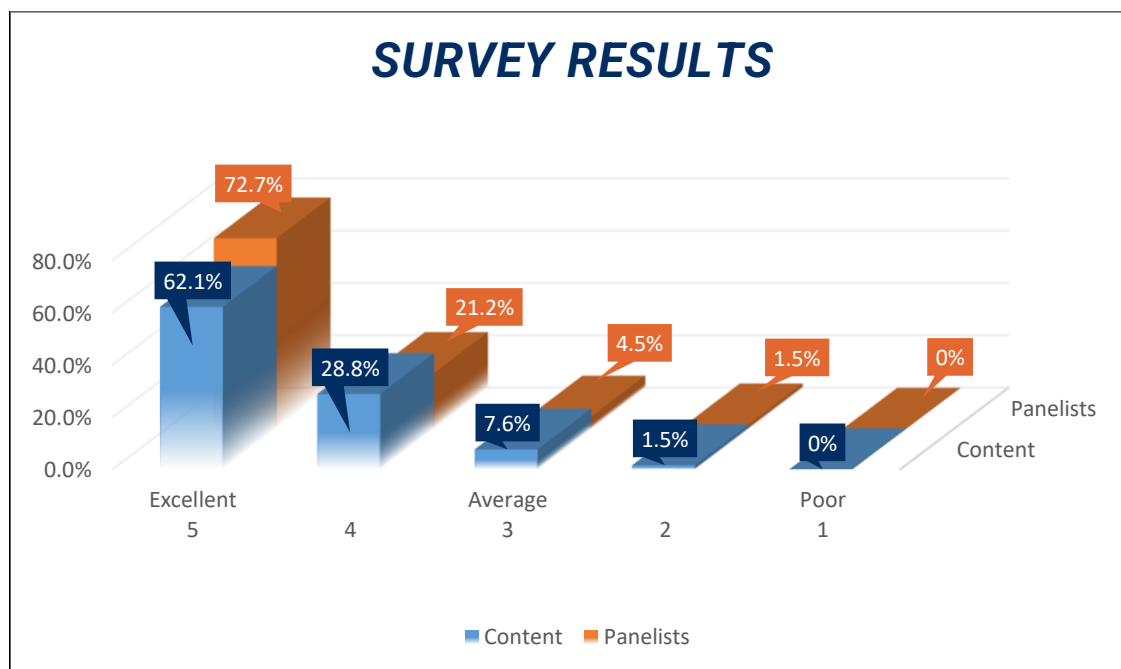
During fiscal year 2023, across October 6-7, 2022, the Virginia Catalyst held a Commonwealth-wide conference, bringing together scientists, engineers, entrepreneurs, incubators and biohubs, life science companies, technology transfer departments and economic development departments.¹⁰

Joni L. Rutter, Ph.D. was the keynote speaker¹¹. Dr. Rutter is the Acting Director of the National Center for Advancing Translational Sciences (NCATS) at the National Institutes of Health (NIH). NCATS was established to transform the translational process so that new treatments and cures for disease can be delivered to patients faster. The conference was structured as a series of expert panels, topics including: Best Practices for Building High-Potential Company, Scientists and Engineers as Entrepreneurs, Raising Capital, Establishing and Building Ecosystems, Growing Pharmaceutical Manufacturing and R-D Cluster, and Partnering with Companies and Healthcare Systems.

The conference was well attended (171 participants) and resulted in excellent feedback overall. Sixty-six feedback surveys were received with ratings given on content of sessions (learning objectives, overall organization, usefulness) and panelists (knowledge, ability to present, engagement). The vast majority rated both the content and panelists as either “excellent” or above average (91% and 94% respectively).

¹⁰ [Appendix E.2](#) Press Release: Catalyst Conference Registration

¹¹ [Appendix E.1](#) Press Release: Catalyst Conference Keynote Speaker



See [Appendix F](#) for the full Catalyst Life Sciences Conference Brochure.

Virginia Catalyst Submission for NSF Engine Concept Outline: INQ-22-00536

As with the Catalyst Life Sciences Conference, the Virginia Catalyst continued to “...*promote the development of bioscience infrastructure tools which can be used to facilitate additional research activities.*” (2022 Special Session I, Assembly, Chapter 2 (approved June 22, 2022), Item 127, J.1) by leading the development of a Commonwealth-wide team to submit an application for the NSF Engine program which awards up to \$160 million to five engines nationwide.

Utilizing the infrastructure of the Catalyst program “Virginia Neuroscience Initiative” (August 2016 – July 2019), experts and leaders in neurosciences from across the Commonwealth were recruited to develop a five integrated and centrally-linked hubs, each led by a major research university, to support programs and services in translational research and development, and workforce development, to translate innovations to practice and invest in neuroscience companies. The program would have a broad and lasting impact on the Virginia innovation ecosystem and economy by translating neuroscience research and development into tangible products and services and by expanding the workforce across a variety of educational and skill levels.

As the full application was 427 pages and not feasible to include in this annual report, a summary of the submitted *Virginia Neuroscience Initiative* is found in [Appendix G](#).

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Appendix A: Governance Overview

Non-government related positions on the Board of Directors, as well as the Project Management and Oversight Panel, are filled on a pro bono basis by qualified individuals who hold important bioscience-related expertise, value the public service nature of this position, and possess a sincere interest in helping to advance Virginia’s bioscience community. VBHRC Virginia Catalyst and Virginia Innovation Partnership Authority are deeply grateful for their voluntary contributions to the Commonwealth.

A.1 Members of Board of Directors

As per the Articles of Incorporation of VBHRC, as amended July 16, 2019, VBHRC shall be managed by a board of directors consisting of a maximum of sixteen directors, nine of whom shall be ex-officio directors designated by entities controlled by the Commonwealth of Virginia. This is intended to satisfy Article IV, §16 of the Constitution of Virginia.

The nine ex-officio directors shall be: the Secretary of Commerce and Trade of Virginia; the President and Chief Executive Officer of the Virginia Economic Development Partnership Authority; the president of the University of Virginia; the president of the Virginia Polytechnic Institute and State University; the president of George Mason University; the president of Virginia Commonwealth University; the president of Eastern Virginia Medical School; the president of Old Dominion University; and the president of the College of William & Mary. Each of the nine ex-officio directors may, in a writing signed by the ex-officio director, designate an employee of his or her agency or institution to act in his or her stead or terminate or replace an earlier designation. The Chair and Vice-Chair of the Board of Directors need not be ex-officio directors, but any ex-officio director may, by written notice to the Chair, require a meeting of the Board of Directors, and may require any matter or motion to be placed upon the agenda and voted upon.

With respect to the remaining seven directors, one (1) shall be a representative of the United States Department of Veterans Affairs, two (2) shall be representatives of statewide health care system providers in Virginia, and the board of directors shall designate an additional three directors representing life sciences company, venture capital firm that regularly invests in life science companies, and statewide representative of the biosciences industry in Virginia.

The current members of the VBHRC Virginia Catalyst Board of Directors are as follows:

Designated Board Seat	Current Board Member
1. Secretary of Commerce and Trade of Virginia or his/her designee	Joseph Benevento Deputy Secretary of Commerce and Trade Commonwealth of Virginia

2. President and Chief Executive Officer of the Virginia Economic Development Partnership Authority or designee	Vince Barnett Vice President, Business Investment
3. President of the University of Virginia or his/her designee	Melur K. Ramasubramanian, Ph.D. Interim Vice President for Research
4. President of the Virginia Polytechnic Institute and State University or his/her designee	Michael Friedlander, Ph.D. Vice President for Health Sciences and Technology, Virginia Tech Founding Executive Director, Fralin Biomedical Research Institute at VTC Senior Dean for Research, Virginia Tech Carilion School of Medicine
5. President of George Mason University or his/her designee	Andre Marshall, Ph.D. Vice President for Research, Innovation, and Economic Impact
6. President of Virginia Commonwealth University or his/her designee	Srirama Rao, Ph.D. Vice President for Research and Innovation
7. President of Eastern Virginia Medical School or his/her designee	Milton Brown, M.D., Ph.D. Vice Dean for Research
8. President of Old Dominion University or his/her designee	Morris Foster, Ph.D. (Treasurer) Vice President for Research
9. President of College of William and Mary or his/her designee	Dennis Manos, Ph.D. Vice Provost for Research and Graduate/Professional Studies
10. Representative of the United States Department of Veteran Affairs	David X. Cifu, M.D. (Chair) National Director for PM&R Services
11. Representative of statewide health care system provider in Virginia	Howard P. Kern President and CEO, Sentara Healthcare
12. Representative of statewide health care system provider in Virginia	<i>(recruiting open position)</i>
13. Representative of a life sciences company	Jeff Conroy Founder and CEO, Embody LLC
14. Representative of a venture capital firm that regularly invests in life sciences companies	Thomas D. Roberts, III (Secretary) General Partner Harbert Management Corporation
15. Representative of a venture capital firm that regularly invests in life sciences companies	Kyp Sirinakis (Vice-Chair) Co-Founder and Managing Director Epidarex Capital
16. Statewide representative of the biosciences industry in Virginia	Charles Anamelechi, Ph.D. Healthcare Strategy and Innovation Leader Digital Health, Product Development

A.2 Members of Project Management and Oversight Panel

As per the Articles of Incorporation of VBHRC, as amended March 7, 2017, the Board of Directors shall establish a Project Management and Oversight Panel with maximum of eleven members, which include up to six (6) scientists, one of which will be a medical doctor or clinical practitioner; three (3) shall be representative of life science companies; and two (2) shall be representative of venture capital firms that actively invest in life science companies. The current members of the VBHRC Virginia Catalyst Project Management and Oversight Committee are as follows:

Designated Panel Seat	Current Panel Member
1. Science and Clinical	Ali Andalibi, Ph.D. Associate Dean of Research George Mason University
2. Science and Clinical	George S. Bloom, Ph.D. Professor of Biology, Cell Biology and Neuroscience University of Virginia
3. Science and Clinical	O. John Semmes, Ph.D. Director, Leroy Canoles Jr. Cancer Research Center Eastern Virginia Medical School
4. Life Science Company	Gerard Eldering President, Innovate Tech Ventures
5. Life Science Company	<i>(recruiting open position)</i>
6. Life Science Company	Jeff Pompeo President and CEO, CareTaker Medical, LLC
7. Life Science Company	Rony Thomas President and CEO, LifeNet Health, Inc.
8. Life Science Company	James C. Powers Chairman and CEO, Hemoshear, LLC
9. Venture Capital Firm	Monique Adams Executive Director, 757 Angels Group
10. Venture Capital Firm	Bob Creeden Managing Director UVA Seed Fund and New Ventures
11. Venture Capital Firm	Scott Meza Shareholder and Attorney at Law, Greenberg Trauig

A.3 Members of Management

As per the Articles of Incorporation of VBHRC, as amended March 7, 2017, the officers of VBHRC shall consist of a President, and such other officers and assistant officers and agents as may be deemed necessary by the Board of Directors. The President shall be the chief executive officer, shall have active executive management of the operations of VBHRC subject to the control of the Board of Directors.

Mike Grisham, MBA President and CEO

Mike Grisham has served as President and CEO of VBHRC Virginia Catalyst since 2014. Prior to this he is the Founder and CEO of GPB Scientific, Inc. He has extensive experience in biosciences, building diagnostic and healthcare companies. Mr. Grisham founded and served as CEO of Celective DX (acquired by On-Q-ity); Verinata Health Inc. (acquired by Illumina); and Paradigm Health Corporation (acquired by Alere). Grisham holds a BA from University of California, Berkeley and an MBA from Stanford Graduate School of Business.

Suzanne Zeta, PhD, MBA Chief Operating Officer

In July 2018, Dr. Zeta joined VBHRC Virginia Catalyst as Vice President of Operations. Prior to this, Dr. Zeta worked for VBHRC to develop a marketing portfolio and provide support for the Virginia Neuroscience Initiative. Previously a member of Virginia Commonwealth University's Department of Physical Medicine and Rehabilitation, her clinical practice, instruction, research, and nationwide presentations led to recognition as a leader and expert in oncology rehabilitation. Taylor also has extensive healthcare management experience including serving as a Regional Director of Operations for American Retirement Corporation and Brookdale Senior Living. Along with being a licensed occupational therapist and having a Master of Business Administration in Healthcare Management degree, Zeta obtained a Doctor of Philosophy degree in Health Related Sciences from Virginia Commonwealth University.

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Appendix B: Funding History of VBHRC

The founding members of VBHRC were Virginia's premiere research institutions: Virginia Commonwealth University, Eastern Virginia Medical School, George Mason University, Virginia Polytechnic Institute and State University and the University of Virginia. Old Dominion University became the sixth member of the consortium effective in 2014, and effective in Fiscal Year 2017, the College of William & Mary became the seventh member of the consortium but withdrew in 2021.

The Commonwealth of Virginia committed funding for Fiscal Years 2013 and 2014 to establish the core objectives of the consortium. In addition to this funding, the President of each member university agreed to commit a cash contribution to participate. The Commonwealth's commitment during those two fiscal years totaled \$5 million, supplemented by a \$100,000 contribution from each member university, distributed as \$50,000 each year.

Funds from Fiscal Years 2013 and 2014 carried over to Fiscal Year 2015. Therefore there was not additional funding from the Commonwealth in Fiscal Year 2015.

For Fiscal Year 2016, VBHRC received \$2,500,000 in funding from the Commonwealth and a total of \$300,000 (\$50,000 each) from its member universities.

In Fiscal Year 2017, VBHRC was funded \$2,500,000 by the Commonwealth of Virginia and \$350,000 through the member institutions (\$50,000 per each year of the seven (7) member institutions), bringing the total funding for Fiscal Year 2017 to \$2,850,000.

In Fiscal Year 2018, VBHRC was funded \$3,750,000 by the Commonwealth of Virginia and \$350,000 through the member institutions (\$50,000 per each year of the seven (7) member institutions), bringing the total funding for Fiscal Year 2018 to \$4,100,000.

In Fiscal Year 2019, VBHRC was funded \$3,750,000 by the Commonwealth of Virginia and \$350,000 through the member institutions (\$50,000 per each year of the seven (7) member institutions), bringing the total funding for Fiscal Year 2019 to \$4,100,000.

In Fiscal Year 2020, VBHRC was funded \$3,750,000 by the Commonwealth of Virginia and \$350,000 through the member institutions (\$50,000 per each year of the seven (7) member institutions), bringing the total funding for Fiscal Year 2020 to \$4,100,000.

In Fiscal Year 2021, VBHRC was funded \$3,750,000 by the Commonwealth of Virginia and \$350,000 through the member institutions (\$50,000 per each year of the seven (7) member institutions), bringing the total funding for Fiscal Year 2021 to \$4,050,000.


In Fiscal Year 2022, VBHRC was funded \$3,750,000 by the Commonwealth of Virginia and \$300,000 through the member institutions (\$50,000 per each year of the six (6) member institutions), bringing the total funding for Fiscal Year 2022 to \$4,050,000.

In Fiscal Year 2023, VBHRC was funded \$3,750,000 by the Commonwealth of Virginia and \$350,000 through the member institutions (\$50,000 per each year of the six (6) member institutions), bringing the total funding for Fiscal Year 2023 to \$4,050,000.

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Appendix C: Financial Statements and Independent Auditor’s Report

C.1 Fiscal Year 2023: Financial Statements



Virginia Biosciences Health Research Corporation

Financial Statements For the Twelve Months Ended June 30, 2023

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BASIS OF ACCOUNTING. These statements are prepared in accordance with generally accepted accounting principles (GAAP); however, all disclosures required by GAAP have been omitted.

NO ASSURANCE. These financial statements have not been audited or reviewed and no CPA provides any assurance on them

Virginia Biosciences Health Research Corporation

Statement of Financial Position

As of June 30, 2023

	TOTAL
ASSETS	
Current Assets	
Bank Accounts	
100000 BB&T Checking 3407	10,430,517.29
105000 BB&T MM 5225	1,320,062.74
109100 Stripe Account	0.00
Total Bank Accounts	\$11,750,580.03
Accounts Receivable	
120000 Commonwealth of VA Approp	7,500,000.00
Total Accounts Receivable	\$7,500,000.00
Other Current Assets	
123000 Prepaid Expenses	0.00
Undeposited Funds	0.00
Total Other Current Assets	\$0.00
Total Current Assets	\$19,250,580.03
TOTAL ASSETS	\$19,250,580.03
LIABILITIES AND EQUITY	
Liabilities	
Current Liabilities	
Other Current Liabilities	
210000 Accrued Expenses	0.00
210500 Accrued Grant Funding	0.00
211000 Deferred income- university sup	0.00
212000 Deferred revenue- State approp.	0.00
213000 Deferred Conference Revenue	0.00
220000 Payroll Liabilities	0.00
230000 Project commitments	0.00
Total Other Current Liabilities	\$0.00
Total Current Liabilities	\$0.00
Total Liabilities	\$0.00
Equity	
310000 Net Assets w/o Donor Restrict	
311000 Uncommitted and Relinquished	9,078,428.16
312000 Committed to Projects	5,708,140.98
Total 310000 Net Assets w/o Donor Restrict	14,786,569.14
320000 Net Assets with Donor Restrict	0.00
321000 Time Restricted	3,750,000.00
Total 320000 Net Assets with Donor Restrict	3,750,000.00
380000 Retained Earnings	-34,854.01
Net Income	748,864.90
Total Equity	\$19,250,580.03
TOTAL LIABILITIES AND EQUITY	\$19,250,580.03

Cash Basis Friday, August 25, 2023 01:40 PM GMT-04:00

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Virginia Biosciences Health Research Corporation

Statement of Activities - Current Month, Prior Month & YTD

May - June, 2023

	MAY 2023	JUN 2023	TOTAL
Income			
440000 Other Income	11.21	10.85	\$22.06
Total Income	\$11.21	\$10.85	\$22.06
GROSS PROFIT	\$11.21	\$10.85	\$22.06
Expenses			
500000 Program Expenses			\$0.00
510000 Collaborative Grant Program			\$0.00
511100 Round 11			\$0.00
511101 1101 Contraline	25,000.00		\$25,000.00
Total 511100 Round 11	25,000.00		\$25,000.00
511200 Round 12			\$0.00
511203 1203 Tympanogen		147,474.00	\$147,474.00
Total 511200 Round 12		147,474.00	\$147,474.00
511300 Round 13			\$0.00
511304 1304 SoundPipe		149,600.00	\$149,600.00
Total 511300 Round 13		149,600.00	\$149,600.00
511400 Round 14			\$0.00
511401 1401 AMPEL		340,000.00	\$340,000.00
511403 1403 Tiny Cargo		182,500.00	\$182,500.00
511404 1404 Virongy		110,000.00	\$110,000.00
Total 511400 Round 14		632,500.00	\$632,500.00
Total 510000 Collaborative Grant Program	25,000.00	929,574.00	\$954,574.00
590000 Support and development			\$0.00
590100 Salaries and Benefits			\$0.00
590110 Salaries and Wages	28,750.02	28,750.02	\$57,500.04
590120 Payroll Taxes	2,199.38	2,199.38	\$4,398.76
590130 Other Benefits	2,000.00	2,000.00	\$4,000.00
Total 590100 Salaries and Benefits	32,949.40	32,949.40	\$65,898.80
590200 Program development			\$0.00
590210 Advertising - Press Releases	850.00		\$850.00
590220 Marketing and promotion		989.37	\$989.37
590230 Conferences		21.50	\$21.50
590240 Meals and Entertainment		1,108.63	\$1,108.63
590250 Memberships and sponsorships		288.43	\$288.43
590260 Travel and lodging		203.60	\$203.60
Total 590200 Program development	850.00	2,611.53	\$3,461.53
Total 590000 Support and development	33,799.40	35,560.93	\$69,360.33
Total 500000 Program Expenses	58,799.40	965,134.93	\$1,023,934.33

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Virginia Biosciences Health Research Corporation

Statement of Activities - Current Month, Prior Month & YTD

May - June, 2023

	MAY 2023	JUN 2023	TOTAL
600000 General and administrative			\$0.00
604000 Accounting services	3,607.40	1,857.40	\$5,464.80
612000 Web Site		300.00	\$300.00
617000 Legal Expenses	186.00	35.00	\$221.00
618000 Office and Computer Supplies		883.82	\$883.82
619000 Office Rent	300.00	300.00	\$600.00
621000 Parking	105.00	128.05	\$233.05
622000 Postage		112.30	\$112.30
624000 Telephone		361.98	\$361.98
Total 600000 General and administrative	4,198.40	3,978.55	\$8,176.95
Unapplied Cash Bill Payment Expense		0.00	\$0.00
Total Expenses	\$62,997.80	\$969,113.48	\$1,032,111.28
NET OPERATING INCOME	\$ -62,986.59	\$ -969,102.63	\$ -1,032,089.22
Other Expenses			
810000 Catalyst Conference expenses		321.45	\$321.45
Total Other Expenses	\$0.00	\$321.45	\$321.45
NET OTHER INCOME	\$0.00	\$ -321.45	\$ -321.45
NET INCOME	\$ -62,986.59	\$ -969,424.08	\$ -1,032,410.67

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Virginia Biosciences Health Research Corporation

Statement of Activities - Budget vs. Actuals

July 2022 - June 2023

	TOTAL		
	ACTUAL	BUDGET	% OF BUDGET
Income			
400000 Virginia General Assembly			
400500 Program support	3,250,000.00	6,500,000.00	50.00 %
401000 General & admin. support	500,000.00	1,000,000.00	50.00 %
Total 400000 Virginia General Assembly	3,750,000.00	7,500,000.00	50.00 %
410000 Member University Contributions			
410500 Virginia Tech	50,000.00	50,000.00	100.00 %
411000 Eastern Va Medical School	50,000.00	50,000.00	100.00 %
412000 Virginia Commonwealth	50,000.00	50,000.00	100.00 %
412500 George Mason University	50,000.00	50,000.00	100.00 %
413000 University of Virginia	50,000.00	50,000.00	100.00 %
413100 Old Dominion University	50,000.00	50,000.00	100.00 %
413200 William & Mary		0.00	
Total 410000 Member University Contributions	300,000.00	300,000.00	100.00 %
420000 Catalyst Conference			
420100 Conference Registration Fee	32,000.00	58,750.00	54.47 %
420200 Conference Sponsorships	15,500.00	40,000.00	38.75 %
Total 420000 Catalyst Conference	47,500.00	98,750.00	48.10 %
425000 VIP Dinner		2,500.00	
440000 Other Income	132.00	0.00	
Total Income	\$4,097,632.00	\$7,901,250.00	51.86 %
GROSS PROFIT	\$4,097,632.00	\$7,901,250.00	51.86 %
Expenses			
500000 Program Expenses			
510000 Collaborative Grant Program			
510800 Round 8			
510804 LifeNet		0.00	
Total 510800 Round 8		0.00	
510900 Round 9		30,000.00	
510903 903 Ceres UVA	30,000.00		
Total 510900 Round 9	30,000.00	30,000.00	100.00 %
511000 Round 10		83,000.00	
511001 1001 CytoRecovery	8,000.00		
511002 1002 InterLeukin	312,700.00	0.00	
511004 1004 Monet		0.00	
511006 1006 Tympanogen		0.00	
Total 511000 Round 10	320,700.00	83,000.00	386.39 %
511100 Round 11		1,042,700.00	
511101 1101 Contraline	25,000.00	0.00	
511103 1103 Meru		0.00	
Total 511100 Round 11	25,000.00	1,042,700.00	2.40 %
511200 Round 12		1,000,000.00	

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Virginia Biosciences Health Research Corporation

Statement of Activities - Budget vs. Actuals

July 2022 - June 2023

		TOTAL	
	ACTUAL	BUDGET	% OF BUDGET
511201 1201 AgroSpheres	228,980.00		
511202 1202 Icarus	245,000.00		
511203 1203 Tympanogen	147,474.00		
Total 511200 Round 12	621,454.00	1,000,000.00	62.15 %
511300 Round 13		1,500,000.00	
511301 1301 Contraline	200,000.00		
511302 1302 PascalMed	190,000.00		
511303 1303 SlateBio	195,000.00		
511304 1304 SoundPipe	443,034.00		
Total 511300 Round 13	1,028,034.00	1,500,000.00	68.54 %
511400 Round 14			
511401 1401 AMPEL	340,000.00		
511403 1403 Tiny Cargo	182,500.00		
511404 1404 Virongy	110,000.00		
Total 511400 Round 14	632,500.00		
511901 COVID PBM-UVA	34,500.00	0.00	
Total 510000 Collaborative Grant Program	2,692,188.00	3,655,700.00	73.64 %
520000 Virginia Neuroscience Initiativ			
525000 VNI Project Management			
525040 Travel	559.79		
Total 525000 VNI Project Management	559.79		
Total 520000 Virginia Neuroscience Initiativ	559.79		
590000 Support and development			
590100 Salaries and Benefits			
590110 Salaries and Wages	355,000.24	362,250.00	98.00 %
590120 Payroll Taxes	23,396.33	25,350.00	92.29 %
590130 Other Benefits	24,000.00	24,000.00	100.00 %
Total 590100 Salaries and Benefits	402,396.57	411,600.00	97.76 %
590200 Program development			
590210 Advertising - Press Releases	5,100.00	2,500.00	204.00 %
590220 Marketing and promotion	989.37		
590230 Conferences	21.50	7,500.00	0.29 %
590240 Meals and Entertainment	1,108.63	1,000.00	110.86 %
590250 Memberships and sponsorships	5,487.43	20,000.00	27.44 %
590260 Travel and lodging	1,911.87	2,000.00	95.59 %
590270 Consulting fees	76,480.00		
590290 Other program Expenses	1,000.00		
Total 590200 Program development	92,098.80	33,000.00	279.09 %
Total 590000 Support and development	494,495.37	444,600.00	111.22 %
Total 500000 Program Expenses	3,187,243.16	4,100,300.00	77.73 %
600000 General and administrative			

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Virginia Biosciences Health Research Corporation

Statement of Activities - Budget vs. Actuals

July 2022 - June 2023

	TOTAL		
	ACTUAL	BUDGET	% OF BUDGET
604000 Accounting services	22,462.80	22,469.00	99.97 %
606000 Audit and tax returns	15,500.00	13,200.00	117.42 %
607000 Bank fees	57.23		
608000 Board of Directors Expense		1,000.00	
611000 VIP Dinner		4,950.00	
611100 Catalyst Conference		97,200.00	
612000 Web Site	300.00	425.00	70.59 %
615000 Dues and Subscriptions		545.00	
616000 Insurance	384.00	500.00	76.80 %
617000 Legal Expenses	10,300.00	20,000.00	51.50 %
618000 Office and Computer Supplies	1,486.34	1,000.00	148.63 %
619000 Office Rent	3,600.00	3,474.00	103.63 %
621000 Parking	1,283.05	1,140.00	112.55 %
622000 Postage	126.22	100.00	126.22 %
624000 Telephone	723.53	1,000.00	72.35 %
630000 Stripe Payment Processing Fees	816.90		
Total 600000 General and administrative	57,040.07	167,003.00	34.16 %
Stripe Payment Processing Fees	109.81		
Unapplied Cash Bill Payment Expense	0.00		
Total Expenses	\$3,244,393.04	\$4,267,303.00	76.03 %
NET OPERATING INCOME	\$853,238.96	\$3,633,947.00	23.48 %
Other Expenses			
810000 Catalyst Conference expenses	321.45	0.00	
811000 Leadership Event			
811200 Food - beverage	3,523.14		
811300 Printing - mailing	578.11		
811400 Promotional materials	3,543.48		
811500 Misc	816.00		
Total 811000 Leadership Event	8,460.73		
812000 Registration platform (eventsqu	4,075.00		
814000 Hotel Room Block	84,652.52		
817000 Poster session			
817200 Printing/holders	566.76		
Total 817000 Poster session	566.76		
818000 Promotional materials			
818100 Printing flyers - brochures	1,342.44		
818200 Attendee bags	131.50		
818300 Speaker gifts	3,361.92		
Total 818000 Promotional materials	4,835.86		
819000 Misc	1,461.74		
Total 810000 Catalyst Conference expenses	104,374.06	0.00	
Total Other Expenses	\$104,374.06	\$0.00	0.00%

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Virginia Biosciences Health Research Corporation

Statement of Activities - Budget vs. Actuals

July 2022 - June 2023

	TOTAL		
	ACTUAL	BUDGET	% OF BUDGET
NET OTHER INCOME	\$ -104,374.06	\$0.00	0.00%
NET INCOME	\$748,864.90	\$3,633,947.00	20.61 %

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VIRGINIA BIOSCIENCES HEALTH RESEARCH CORPORATION
Project Awards, Allocations to Date, Funds Relinquished, and Remaining Awards

Round	Company	Lead School	Amount Awarded	Allocation Awarded	Funds Forfeited	Award Remaining
Round 01	BioTherapeutics		400,000	400,000	-	-
	Cavion LLC		200,000	200,000	-	-
	FirstString		200,000	200,000	-	-
	HemoShear		450,000	450,000	-	-
Round 01 Total			1,250,000	1,250,000	-	-
Round 02	Gencia		400,000	400,000	-	-
	LifeNet Health		255,000	255,000	-	-
	Neoantigenics		348,729	348,729	-	-
	SphynKx		400,000	400,000	-	-
Round 02 Total			1,403,729	1,403,729	-	-
Round 03	OncoSec Medical		585,000	585,000	-	-
	PhenoCHIP		270,000	270,000	-	-
	US Probe		536,000	406,000	130,000	-
Round 03 Total			1,391,000	1,261,000	130,000	-
Round 04	BioTherapeutics		400,000	400,000	-	-
	BrightSpec		400,000	400,000	-	-
	Ceres Nanotrap		500,000	500,000	-	-
	Embody		634,500	634,500	-	-
	FirstString		290,000	290,000	-	-
Round 04 Total			2,224,500	2,224,500	-	-
Round 05	Cavion LLC		306,985	306,985	-	-
	VoltMed		380,000	380,000	-	-
Round 05 Total			686,985	686,985	-	-
Round 06	BioTherapeutics		800,000	800,000	-	-
	Propagenix		425,000	320,000	105,000	-
	Pulse Biosciences		300,000	300,000	-	-
	Sanyal Biotechnology		100,000	100,000	-	-
	SerpinPharma		400,000	400,000	-	-
	VoltMed		800,000	800,000	-	-
Round 06 Total			2,825,000	2,720,000	105,000	-
Round 07	ImmunArray		500,000	180,000	320,000	-
	Indivior		500,000	222,222	277,778	-
	ReAlta Live Sciences		400,000	339,122	60,878	-
Round 07 Total			1,400,000	741,344	658,656	-
Round 08	BrightSpec		398,922	400,000	(1,078)	-
	Continuum Biosciences		400,000	400,000	-	-
	Embody		800,000	800,000	-	-
	LifeNet Health		250,000	250,000	-	-
	SerpinPharma		350,000	350,000	-	-
WynnVision		510,000	510,000	-	-	
Round 08 Total			2,708,922	2,710,000	(1,078)	-

No CPA provides any assurance on these financial statements

VIRGINIA BIOSCIENCES HEALTH RESEARCH CORPORATION
Project Awards, Allocations to Date, Funds Relinquished, and Remaining Awards

Round	Company	Lead School	Amount Awarded	Allocation Awarded	Funds Forfeited	Award Remaining
Round 09	AgroSpheres		600,000	600,000	-	-
	BrightSpec		400,000	400,000	-	-
	Ceres Nanotrap		600,000	600,000	-	-
	Perthera		500,000	500,000	-	-
Round 09 Total			2,100,000	2,100,000	-	-
Round 10	CytoRecovery		400,000	400,000	-	-
	InterLeukin		700,000	700,000	-	-
	Lytos		500,000	500,000	-	-
	Monet		400,000	375,000	-	25,000
	Rivanna		800,000	800,000	-	-
	Tympanogen		500,000	500,000	-	-
Round 10 Total			3,300,000	3,275,000	-	25,000
Round 11	Contraline		600,000	599,300	-	700
	ISOThrive		800,000	45,000	-	755,000
	Meru		700,000	675,000	-	25,000
Round 11 Total			2,100,000	1,319,300	-	780,700
Round 12	AgroSpheres		600,000	245,000	-	355,000
	Icarus		600,000	600,000	-	-
	Tympanogen		737,369	339,191	-	398,178
Round 12 Total			1,937,369	1,184,191	-	753,178
Round 13	Contraline		700,000	200,000	-	500,000
	PascalMed		375,000	190,000	-	185,000
	SlateBio		575,000	265,000	-	310,000
	Soundpipe		600,000	443,034	-	156,966
Round 13 Total			2,250,000	1,098,034	-	1,151,966
Round 14	AMPEL		805,000	340,000	-	465,000
	Liquet		368,797	-	-	368,797
	Tiny Cargo		350,000	182,500	-	167,500
	Virongy		500,000	110,000	-	390,000
Round 14 Total			2,023,797	632,500	-	1,391,297
Round C19	PBM		345,000	345,000	-	-
	ReAlta Live Sciences		1,356,000	-	-	1,356,000
	SerpinPharma		500,000	250,000	-	250,000
Round C19 Total			2,201,000	595,000	-	1,606,000
Grand Total			\$ 29,802,302	\$ 23,201,583	892,578	5,708,141

No CPA provides any assurance on these financial statements

VIRGINIA BIOSCIENCES HEALTH RESEARCH CORPORATION
 Funding Allocations by Prime University

Funding Allocations by Prime University						
	EVMS	GMU	ODU	UVA	VA Tech	VCU
Round 01	\$ -	\$ -	\$ -	\$ 650,000	\$ 600,000	\$ -
Round 02	255,000	-	-	348,729	400,000	400,000
Round 03	-	-	585,000	-	270,000	536,000
Round 04	-	500,000	634,500	400,000	690,000	-
Round 05	-	-	-	306,985	380,000	-
Round 06	100,000	400,000	300,000	-	1,600,000	425,000
Round 07	400,000	-	-	-	500,000	500,000
Round 08	-	350,000	1,050,000	-	400,000	908,922
Round 09	-	-	-	1,100,000	600,000	400,000
Round 10	500,000	400,000	-	1,300,000	400,000	700,000
Round 11	800,000	-	-	600,000	-	700,000
Round 12	737,369	-	-	600,000	600,000	-
Round 13	-	-	-	1,875,000	-	375,000
Round 14	-	500,000	-	368,797	1,155,000	-
Total	\$ 2,792,369	\$ 2,150,000	\$ 2,569,500	\$ 7,549,511	\$ 7,595,000	\$ 4,944,922

No CPA provides any assurance on these financial statements

C.2 Fiscal Year 2023: Independent Auditor’s Report



**REQUIRED COMMUNICATION WITH
THOSE CHARGED WITH GOVERNANCE**

To the Board of Directors of
Virginia Biosciences Health Research Corporation
800 E Leigh Street, Suite 17
Richmond, Virginia 23219

We have audited the financial statements of Virginia BioSciences Health Research Corporation (the “Corporation”) for the year ended June 30, 2023, and have issued our report thereon dated September 22, 2023. Professional standards require that we provide you with information about our responsibilities in accordance with auditing standards generally accepted in the United States of America, as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our letter to you dated August 21, 2023. Professional standards also require that we communicate to you the following information related to our audit.

Significant Audit Matters

Qualitative Aspects of Accounting Practices

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by the Corporation are described in Note 1 to the financial statements. No new accounting policies were adopted, and the application of existing policies was not changed during the year ended June 30, 2023. We noted no transactions entered into by the Corporation during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management’s knowledge and experience about past and current events, and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The most sensitive estimate affecting the financial statements was:

Current accounting standards require organizations to report expenses by their functional classification, such as by their programs and supporting activities. Costs common to multiple functions have been allocated based on activity reports prepared by key employees. Based on these reports, the Corporation has estimated the President and CEO’s salary to consist of 90% for program services and 10% for management and general activities, and the VP of Operations’ salary to consist of 95% for program services and 5% for management and general activities.

Certain financial statement disclosures are particularly sensitive because of their significance to the financial statement users. There are no sensitive disclosures affecting the financial statements. The financial statement disclosures are neutral, consistent, and clear.

Your Success is Our Focus

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Significant Audit Matters (Continued)

Difficulties Encountered in Performing the Audit

We encountered no significant difficulties in dealing with management in performing and completing our audit.

Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all misstatements identified during the audit, other than those that are trivial, and communicate them to the appropriate level of management. There were no corrected or uncorrected misstatements to the financial statements.

Disagreements with Management

For purposes of this letter, a disagreement with management is a disagreement on a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

Management Representations

We have requested certain representations from management that are included in the management representation letter dated September 22, 2023.

Management Consultations with Other Independent Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to the Corporation's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all relevant facts. To our knowledge, there were no such consultations with other accountants.

Other Audit Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as the Corporation's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

This information is intended solely for the use of the members of the Board of Directors and management of the Virginia BioSciences Health Research Corporation, and is not intended to be, and should not be, used by anyone other than these specified parties.

Sincerely,



CERTIFIED PUBLIC ACCOUNTANTS

Glen Allen, Virginia
September 22, 2023

Report to the Board of Directors
Virginia Biosciences Health Research Corporation



Management Representation Letter

Report to the Board of Directors
Virginia Biosciences Health Research Corporation



Brown, Edwards & Company, L.L.P.
Certified Public Accountants
4951 Lake Brook Drive, Suite 375
Glen Allen, Virginia 23060-9273

This representation letter is provided in connection with your audits of the financial statements of Virginia BioSciences Health Research Corporation d/b/a Virginia Catalyst (the Corporation), which comprise the statements of financial position as of June 30, 2023 and 2022, and the related statements of activities, functional expenses, and cash flows for the years then ended, and the disclosures (collectively, the “financial statements”), for the purpose of expressing an opinion as to whether the financial statements are presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States (U.S. GAAP).

Certain representations in this letter are described as being limited to matters that are material. Items are considered material, regardless of size, if they involve an omission or misstatement of accounting information that, in light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would be changed or influenced by the omission or misstatement. An omission or misstatement that is monetarily small in amount could be considered material as a result of qualitative factors.

We confirm, to the best of our knowledge and belief, as of the date of this letter, the following representations made to you during your audits.

Financial Statements

- 1) We have fulfilled our responsibilities, as set out in the terms of the audit engagement letter dated August 21, 2023, including our responsibility for the preparation and fair presentation of the financial statements in accordance with U.S. GAAP.
- 2) The financial statements referred to above are fairly presented in conformity with U.S. GAAP.
- 3) We acknowledge our responsibility for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.
- 4) We acknowledge our responsibility for the design, implementation, and maintenance of internal control to prevent and detect fraud.
- 5) Significant assumptions we used in making accounting estimates, including those measured at fair value, are reasonable.
- 6) Related-party relationships and transactions, if any, have been appropriately accounted for and disclosed in accordance with the requirements of U.S. GAAP.
- 7) All events subsequent to the date of the financial statements and for which U.S. GAAP requires adjustment or disclosure have been adjusted or disclosed.

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Brown, Edwards & Company, L.L.P.
Page 2

Financial Statements (Continued)

- 8) We are not aware of any pending or threatened litigation, claims, or assessments or unasserted claims or assessments that are required to be accrued or disclosed in the financial statements in accordance with U.S. GAAP, and we have not consulted a lawyer concerning litigation, claims, or assessments.
- 9) Material concentrations have been appropriately disclosed in accordance with U.S. GAAP.
- 10) Guarantees, whether written or oral, under which the Corporation is contingently liable, have been properly recorded or disclosed in accordance with U.S. GAAP.
- 11) The following have been properly recorded and/or disclosed in the financial statements:
 - a) Recordable contributions, by appropriate net asset class;
 - b) Reclassifications between net asset classes;
 - c) Allocations of functional expenses based on reasonable basis;
 - d) Composition of assets in amounts needed to comply with all donor restrictions; and
 - e) Board designated unrestricted net assets.
- 12) We have implemented ASU 2016-02, *Leases (Topic 842)* during the audit period. We have implemented the new accounting standard in accordance with the transition guidance prescribed in the ASU. We have sufficient and appropriate documentation supporting all estimates and judgments underlying the amounts recorded and disclosed in the financial statements.


Information Provided


- 13) We have provided you with:
 - a) Access to all information, of which we are aware, that is relevant to the preparation and fair presentation of the financial statements, such as records (including information obtained from outside of the general and subsidiary ledgers), documentation, and other matters.
 - b) Additional information that you have requested from us for the purpose of the audits.
 - c) Unrestricted access to persons within the Corporation from whom you determined it necessary to obtain audit evidence.
 - d) Minutes of the meetings of the governing board or summaries of actions of recent meetings for which minutes have not yet been prepared.
- 14) All material transactions have been recorded in the accounting records and are reflected in the financial statements.
- 15) We have disclosed to you the results of our assessment of the risk that the financial statements may be materially misstated as a result of fraud.
- 16) We have no knowledge of any fraud or suspected fraud that affects the Corporation and involves:
 - a) Management;
 - b) Employees who have significant roles in internal control; or
 - c) Others where the fraud could have a material effect on the financial statements.
- 17) We have no knowledge of any allegations of fraud or suspected fraud affecting the Corporation's financial statements communicated by employees, former employees, grantors, regulators, or others.

Brown, Edwards & Company, L.L.P.
Page 3

- 18) We have no knowledge of any instances of noncompliance or suspected noncompliance with laws and regulations whose effects should be considered when preparing the financial statements. Additionally, we specifically represent that we are responsible for determining that we are not subject to the requirements of the Single Audit Act because we have not received, expended or otherwise been the beneficiary of the required amount of federal awards during the period of this audit.
- 19) We have disclosed to you all known actual or possible litigation, claims, and assessment whose effects should be considered when preparing the financial statements.
- 20) We have disclosed to you the identity of the Corporation's related parties and all related-party relationships and transactions of which we are aware.
- 21) The Corporation has satisfactory title to all owned assets, and there are no liens or encumbrances on such assets nor has any asset been pledged as collateral.
- 22) We are responsible for compliance with the laws, regulations, and provisions of contracts and grant agreements applicable to us.
- 23) The Corporation is an exempt organization under Section 501(c)(3) of the *Internal Revenue Code*. Any activities of which we are aware that would jeopardize the Corporation's tax-exempt status, and all activities subject to tax on unrelated business income or excise or other tax, have been disclosed to you. All required filings with tax authorities are up to date.
- 24) In regards to the nonattest services performed by you we have:
 - a) Assumed all management responsibilities.
 - b) Designated an individual, within senior management, who possesses suitable skill, knowledge, or experience to oversee the services.
 - c) Evaluated the adequacy and results of the services performed.
 - d) Accepted responsibility for the results of the services.
 - e) Ensured that the data and records are complete and we have sufficient information to oversee the services.

VIRGINIA BIOSCIENCES HEALTH RESEARCH CORPORATION
D/BA VIRGINIA CATALST

Signed: 
Michael Grisham, President and CEO

Signed: 
David Cifu, Chairman of the Board

Date: 09/22/2023

**VIRGINIA BIOSCIENCES HEALTH
RESEARCH CORPORATION
D/B/A VIRGINIA CATALYST**

FINANCIAL REPORT

June 30, 2023



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INDEPENDENT AUDITOR'S REPORT

Board of Directors
Virginia Biosciences Health Research Corporation d/b/a Virginia Catalyst
Richmond, Virginia

Opinion

We have audited the accompanying financial statements of Virginia Biosciences Health Research Corporation d/b/a Virginia Catalyst (a nonprofit organization), which comprise the statements of financial position as of June 30, 2023 and 2022, the related statements of activities, functional expenses, and cash flows for the years then ended, and the related notes to the financial statements (collectively, the financial statements).

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Virginia Biosciences Health Research Corporation d/b/a Virginia Catalyst as of June 30, 2023 and 2022, and the changes in its net assets and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of Virginia Biosciences Health Research Corporation d/b/a Virginia Catalyst and to meet our other ethical responsibilities in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Virginia Biosciences Health Research Corporation d/b/a Virginia Catalyst's ability to continue as a going concern within one year after the date that the financial statements are available to be issued.

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Auditor’s Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor’s report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and, therefore, is not a guarantee that an audit conducted in accordance with generally accepted auditing standards will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements, including omissions, are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with generally accepted auditing standards, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Virginia Biosciences Health Research Corporation d/b/a Virginia Catalyst’s internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Virginia Biosciences Health Research Corporation d/b/a Virginia Catalyst’s abilities to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

Brown, Edwards & Company, L.L.P.
 CERTIFIED PUBLIC ACCOUNTANTS

Glen Allen, Virginia
 September 22, 2023

**VIRGINIA BIOSCIENCES HEALTH RESEARCH CORPORATION
D/B/A VIRGINIA CATALYST**

**STATEMENTS OF FINANCIAL POSITION
June 30, 2023 and 2022**

	2023	2022
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	\$ 11,750,580	\$ 10,989,215
Pledges receivable, net current portion		
Member universities	300,000	300,000
Commonwealth of Virginia	3,750,000	3,750,000
Conference sponsorships, less allowance for uncollectible receivables 2023 \$12,550; 2022 \$0	-	13,850
Total current assets	15,800,580	15,053,065
LONG-TERM ASSETS		
Pledges receivable, net, less current portion		
Commonwealth of Virginia	-	3,750,000
Total assets	\$ 15,800,580	\$ 18,803,065
LIABILITIES AND NET ASSETS		
LIABILITIES		
Accounts payable	\$ 147,500	\$ 264,296
Deferred conference revenue	-	1,350
Total liabilities	147,500	265,646
NET ASSETS		
Net assets without donor restrictions	9,104,080	8,238,419
Net assets with donor restrictions	6,549,000	10,299,000
Total net assets	15,653,080	18,537,419
Total liabilities and net assets	\$ 15,800,580	\$ 18,803,065

The accompanying notes are an integral part of these financial statements.

VIRGINIA BIOSCIENCES HEALTH RESEARCH CORPORATION
D/B/A VIRGINIA CATALYST

STATEMENTS OF ACTIVITIES
Years Ended June 30, 2023 and 2022

	2023			2022		
	Net Assets Without Donor Restrictions	Net Assets With Donor Restrictions	Total	Net Assets Without Donor Restrictions	Net Assets With Donor Restrictions	Total
REVENUE						
Contributions, Virginia General Assembly						
Program support	\$ -	\$ -	\$ -	\$ -	\$ 6,500,000	\$ 6,500,000
General and administrative support	-	-	-	-	1,000,000	1,000,000
Contributions, Member Universities						
Eastern Virginia Medical School	50,000	-	50,000	50,000	-	50,000
George Mason University	50,000	-	50,000	50,000	-	50,000
Old Dominion University	50,000	-	50,000	50,000	-	50,000
University of Virginia	50,000	-	50,000	50,000	-	50,000
Virginia Commonwealth University	50,000	-	50,000	50,000	-	50,000
Virginia Polytechnic Institute and State University	50,000	-	50,000	50,000	-	50,000
Contributions - conference sponsorships	28,500	-	28,500	-	-	-
Other income	132	-	132	1,213	-	1,213
	<u>328,632</u>	<u>-</u>	<u>328,632</u>	<u>301,213</u>	<u>7,500,000</u>	<u>7,801,213</u>
Program Services						
Conference	31,550	-	31,550	-	-	-
Net Assets Released from Restrictions						
Satisfaction of time restrictions	3,750,000	(3,750,000)	-	5,951,000	(5,951,000)	-
Total support and revenues	<u>4,110,182</u>	<u>(3,750,000)</u>	<u>360,182</u>	<u>6,252,213</u>	<u>1,549,000</u>	<u>7,801,213</u>
EXPENSES						
Program services	3,157,522	-	3,157,522	3,039,559	-	3,039,559
Management and general	86,999	-	86,999	81,972	-	81,972
Total expenses	<u>3,244,521</u>	<u>-</u>	<u>3,244,521</u>	<u>3,121,531</u>	<u>-</u>	<u>3,121,531</u>
Change in net assets	865,661	(3,750,000)	(2,884,339)	3,130,682	1,549,000	4,679,682
NET ASSETS, beginning	<u>8,238,419</u>	<u>10,299,000</u>	<u>18,537,419</u>	<u>5,107,737</u>	<u>8,750,000</u>	<u>13,857,737</u>
NET ASSETS, ending	<u>\$ 9,104,080</u>	<u>\$ 6,549,000</u>	<u>\$ 15,653,080</u>	<u>\$ 8,238,419</u>	<u>\$ 10,299,000</u>	<u>\$ 18,537,419</u>

The accompanying notes are an integral part of these financial statements.

VIRGINIA BIOSCIENCES HEALTH RESEARCH CORPORATION
D/B/A VIRGINIA CATALYST

STATEMENTS OF FUNCTIONAL EXPENSES
Years Ended June 30, 2023 and 2022

	2023			2022		
	Program Services	Management and General	Total	Program Services	Management and General	Total
Accounting services	\$ -	\$ 37,963	\$ 37,963	\$ -	\$ 30,951	\$ 30,951
Conferences	104,396	-	104,396	-	-	-
Consulting services	76,480	-	76,480	-	-	-
Employee benefits	22,800	1,200	24,000	23,182	1,220	24,402
Grant expenses	2,577,548	-	2,577,548	2,658,018	-	2,658,018
Legal expenses	-	10,300	10,300	-	14,132	14,132
Marketing and promotion	6,089	-	6,089	850	-	850
Meals and entertainment	1,109	-	1,109	500	-	500
Memberships and sponsorships	5,487	-	5,487	15,199	-	15,199
Miscellaneous	1,000	-	1,000	-	768	768
Office expenses	-	1,843	1,843	-	757	757
Parking	-	1,283	1,283	-	1,140	1,140
Payroll taxes	21,625	1,771	23,396	21,220	1,849	23,069
Occupancy	-	3,600	3,600	-	3,391	3,391
Bank charges	-	927	927	-	41	41
Salaries and wages	327,250	27,750	355,000	319,866	27,361	347,227
Telephone	-	362	362	-	362	362
Travel and lodging	1,188	-	1,188	724	-	724
Bad debt expense	12,550	-	12,550	-	-	-
	<u>\$ 3,157,522</u>	<u>\$ 86,999</u>	<u>\$ 3,244,521</u>	<u>\$ 3,039,559</u>	<u>\$ 81,972</u>	<u>\$ 3,121,531</u>

The accompanying notes are an integral part of these financial statements.

**VIRGINIA BIOSCIENCES HEALTH RESEARCH CORPORATION
D/B/A VIRGINIA CATALYST**

**STATEMENTS OF CASH FLOWS
Years Ended June 30, 2023 and 2022**

	2023	2022
OPERATING ACTIVITIES		
Change in assets	\$ (2,884,339)	\$ 4,679,682
Adjustments to reconcile change in net assets to net cash and cash equivalents provided by operating activities:		
Decrease (increase) in operating assets:		
Pledges receivable	3,750,000	(3,750,000)
Conference sponsorships receivable	13,850	(13,850)
Increase (decrease) in operating liabilities:		
Accounts payable	(116,796)	111,568
Deferred conference revenue	(1,350)	1,350
Net cash and cash equivalents provided by operating activities	761,365	1,028,750
CASH AND CASH EQUIVALENTS, beginning	10,989,215	9,960,465
CASH AND CASH EQUIVALENTS, ending	\$ 11,750,580	\$ 10,989,215

The accompanying notes are an integral part of these financial statements.

**VIRGINIA BIOSCIENCES HEALTH RESEARCH CORPORATION
D/B/A VIRGINIA CATALYST**

**NOTES TO FINANCIAL STATEMENTS
June 30, 2023**

Note 1. Nature of Organization and Summary of Significant Accounting Policies

Nature of organization

Virginia Biosciences Health Research Corporation d/b/a Virginia Catalyst (the Corporation) was organized as a nonprofit corporation in 2013 and is operated for educational and research purposes. The mission of the Corporation is to foster life sciences research at universities located within the Commonwealth of Virginia by providing resources for partnering between public and private institutions and nonprofit universities. The five founding institutions are Eastern Virginia Medical School, George Mason University, University of Virginia, Virginia Commonwealth University, and Virginia Polytechnic Institute and State University. Old Dominion University was admitted in December 2013 and College of William & Mary was admitted in October 2016 and exited in July 2020. Research is to be centered in three focus areas: bioinformatics and medical informatics, point of care diagnostics, and drug discovery and delivery.

A summary of the Corporation's significant accounting policies follows:

Financial statement presentation

Under current accounting standards, the Corporation is required to report information regarding its financial position and activities according to two classes of assets: net assets without donor restrictions and net assets with donor restrictions. The net asset classes are summarized as follows:

Net assets without donor restrictions include board designated and other funds without donor restrictions. The funds without donor restrictions include revenue and expenses used currently for the general operations of the Corporation. Contributions that are with donor restrictions are reported as increases in net assets without donor restrictions if the donor restrictions expire in the fiscal year in which the contributions are recognized.

Net assets with donor restrictions include contributions restricted by donor designation or time restrictions and are reported as increases in net assets with donor restrictions. When a restriction expires either with the passage of time or by actions of the Corporation, contributions with donor restrictions are released and reclassified to net assets without donor restrictions. Net assets with donor restrictions consist of pledged contributions due in future years and contributions designated for use in COVID-19 research.

Cash and cash equivalents

The Corporation considers all highly liquid investments with an initial maturity of three months or less to be cash equivalents.

(Continued)

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**VIRGINIA BIOSCIENCES HEALTH RESEARCH CORPORATION
D/B/A VIRGINIA CATALYST**

**NOTES TO FINANCIAL STATEMENTS
June 30, 2023**

Note 1. Nature of Organization and Summary of Significant Accounting Policies (Continued)

Pledges receivable

Pledges are recognized when the donor makes a promise to give to the Corporation that is, in substance, unconditional. Contributions that are restricted by the donor are reported as increases in net assets with donor restrictions. When a restriction expires, net assets with donor restrictions are reclassified to net assets without donor restrictions and reported in the statement of activities as net assets released from restrictions.

Revenue recognition

The Financial Accounting Standards Board (FASB) Accounting Standards Codification Topic 606, *Revenue from Contracts with Customers*, as amended, supersedes or replaces nearly all GAAP revenue recognition guidance. These standards establish a new contract and control-based revenue recognition model, change the basis for deciding when revenue is recognized over time or at a point in time, and expand disclosures about revenue.

Contributions, including unconditional promises to give are scoped out of ASC 606 and are recognized when received. All contributions are reported as increases in net assets without donor restrictions unless use of the contributed assets is specifically restricted by the donor. Amounts received that are restricted by the donor to use in future periods or for specific purposes are reported as increases in net assets with donor restrictions. Unconditional promises with payments due in future years have an implied restriction to be used in the year the payment is due, and, therefore, are reported as restricted until the payment is due, unless the contribution is clearly intended to support activities of the current fiscal year. Conditional promises, such as matching grants, are not recognized until they become unconditional, that is, until all conditions on which they depend are substantially met.

Expense recognition and allocation

The cost of providing the Corporation's programs and other activities is summarized on a functional basis in the statement of activities and statement of functional expenses. Expenses that can be identified with a specific program or support service are charged directly to that program or support service. Costs common to multiple functions have been allocated among the various functions benefited using a reasonable allocation method that is consistently applied, as follows:

- Salaries and wages and payroll taxes are allocated based on activity reports prepared by key personnel.

Every three years, or more often when new programs are added, the bases on which costs are allocated are evaluated.

General and administrative expenses include those costs that are not directly identifiable with any specific program, but which provide for the overall support and direction of the Corporation.

(Continued)

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**VIRGINIA BIOSCIENCES HEALTH RESEARCH CORPORATION
D/B/A VIRGINIA CATALYST**

**NOTES TO FINANCIAL STATEMENTS
June 30, 2023**

Note 1. Nature of Organization and Summary of Significant Accounting Policies (Continued)

Use of estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and disclosure of contingent assets and liabilities at the date of the financial statements. Such estimates also affect the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates.

Income taxes

The Corporation is exempt from federal income taxes under Section 501(c)(3) of the Internal Revenue Code and is not classified as a Private Foundation.

The Financial Accounting Standards Board issued guidance on accounting for uncertainty in income taxes. Management evaluated the Corporation's tax positions and concluded that the Corporation had taken no uncertain tax positions that require adjustment to the financial statements to comply with the provisions of this guidance.

The Corporation includes penalties and interest assessed by income taxing authorities in management and general expenses. The Corporation did not have penalties and interest relating to income taxes for the years ended June 30, 2023 and 2022.

Adoption of FASB ASC 842

Effective July 1, 2022, the Corporation adopted FASB ASC 842, *Leases*. The Corporation determines if an arrangement contains a lease at inception based on whether the Corporation has the right to control the asset during the contract period and other facts and circumstances. The Corporation elected the package of practical expedients permitted under the transition guidance within the new standard, which among other things, allowed it to carry forward the historical lease classification.

The adoption of FASB ASC 842 did not have a material impact on the Corporation's results of operations or cash flows. The Corporation's only lease was determined to be immaterial to the financial statements for purposes of calculating a right-of-use asset and operating liability. See Note 7.

Classification of transactions

All revenues and net gains are reported as increases in net assets without donor restrictions in the statement of activities unless the donor specified the use of the related resources for a particular purpose or in a future period. All expenses and net losses are reported as decreases in net assets without donor restrictions.

(Continued)

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**VIRGINIA BIOSCIENCES HEALTH RESEARCH CORPORATION
D/B/A VIRGINIA CATALYST**

**NOTES TO FINANCIAL STATEMENTS
June 30, 2023**

Note 2. Concentration of Credit Risk

The Corporation maintains its cash balances in one financial institution and the accounts, at times, may exceed federally insured limits. As of June 30, 2023 and 2022, the cash in the bank exceeded the federally insured limit by \$11,500,580 and \$10,739,215, respectively. The Corporation maintains its funds at a national bank and feels that the risk of loss is minimal.

Note 3. Concentration of Revenue

For the year ended June 30, 2023 and 2022, the Corporation received the majority of its funding from appropriations approved by the General Assembly of the Commonwealth of Virginia. Funding is typically granted for a two-year period as stipulated in the budget of the Commonwealth. These funds were net assets with donor restrictions and are released based on time. The funding is used to support the mission of the Corporation to capture and perform research in biosciences, as well as promote the development of bioscience infrastructure tools which can be used to facilitate additional research activities.

Note 4. Pledged Contributions Receivable

The Corporation's policy is to record only written pledged contributions receivable. Management estimates that no allowance for doubtful accounts for pledges is required.

The pledged contributions receivable as of June 30 are as follows:

	2023	2022
Commonwealth of Virginia	\$ 3,750,000	\$ 7,500,000
Eastern Virginia Medical School	50,000	50,000
George Mason University	50,000	50,000
Old Dominion University	50,000	50,000
University of Virginia	50,000	50,000
Virginia Commonwealth University	50,000	50,000
Virginia Polytechnic Institute and State University	50,000	50,000
	\$ 4,050,000	\$ 7,800,000
	2023	2022
Amounts expected to be received in:		
Less than one year	\$ 4,050,000	\$ 4,050,000
One to five years	-	3,750,000
	\$ 4,050,000	\$ 7,800,000

(Continued)
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**VIRGINIA BIOSCIENCES HEALTH RESEARCH CORPORATION
D/B/A VIRGINIA CATALYST**

**NOTES TO FINANCIAL STATEMENTS
June 30, 2023**

Note 5. Liquidity and Availability

Financial assets available for general expenditure that is, without donor or other restrictions limiting their use, within one year of June 30 are:

	<u>2023</u>	<u>2022</u>
Financial assets at year-end:		
Cash and cash equivalents	\$ 11,750,580	\$ 10,989,215
Pledges receivable	4,050,000	7,800,000
Total financial assets	<u>15,800,580</u>	<u>18,789,215</u>
Less financial assets held to meet donor-imposed restrictions:		
Purpose restricted net assets (Note 6)	(2,799,000)	(2,799,000)
Time restricted net assets (Note 6)	(3,750,000)	(3,750,000)
Less board designations:		
Operating reserves	<u>(180,000)</u>	<u>(180,000)</u>
Financial assets available to meet general expenditures over the next twelve months	<u>\$ 9,071,580</u>	<u>\$ 12,060,215</u>

The board designation for operation reserves is in place to ensure the Corporation's ongoing and future viability to withstand the impact of economic downturns and invest in strategic opportunities. The Corporation only holds liquid assets consisting of cash and cash equivalents. The Corporation uses a budgeting process to manage its cash flow and liquidity needs.

Note 6. Net Assets with Donor Restrictions

As of June 30, 2023 and 2022, net assets with donor restrictions are available for the following purposes or periods:

	<u>2023</u>	<u>2022</u>
Purpose restrictions, available for spending:		
Covid-19 Research	\$ 2,799,000	\$ 2,799,000
Time restrictions:		
Contributions receivable, which are unavailable for spending until due.	<u>3,750,000</u>	<u>7,500,000</u>
Total net assets with donor restrictions	<u>\$ 6,549,000</u>	<u>\$ 10,299,000</u>

(Continued)

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**VIRGINIA BIOSCIENCES HEALTH RESEARCH CORPORATION
D/B/A VIRGINIA CATALYST**

**NOTES TO FINANCIAL STATEMENTS
June 30, 2023**

Note 7. Lease Commitments

Effective November 1, 2021, the Corporation entered into an agreement to lease office space for 12 months. This lease was renewed for an additional two-year period through October 21, 2024. Rent expense for the years ended June 30, 2023 and 2022 was \$3,600, respectively.

Future payments due under this operating lease as of June 30, 2023 are as follows:

2024	\$	3,600
2025		1,200
		\$ 4,800

Note 8. Subsequent Events

Management has evaluated subsequent events through September 22, 2023, the date which the financial statements were available for issue.

C.3 Fiscal Year 2024: Pro Forma Budget

		Fiscal Year 2024			Fiscal Year 2023			
		Proposed Budget	Budget Increase/ (Decrease)		Budget	Actual	Over (Under) Budget	
Virginia Biosciences Health Research Corporation								
Fiscal Year 2024 Budget								
Income								
400500 · Program support	3,250,000	80.3%	-	3,250,000	78.3%	3,250,000	79.4%	-
401000 · General and admin support	500,000	12.5%	-	500,000	12.0%	500,000	12.2%	-
400000 · Virginia General Assembly	3,750,000	92.8%	-	3,750,000	90.3%	3,750,000	91.6%	-
420000 · Catalyst Conference	-	0.0%	(98,750)	98,750	2.4%	47,500	1.2%	(51,250)
430000 · VIP Dinner	-	0.0%	(2,500)	2,500	0.1%	-	0.0%	(2,500)
410000 · Member University Contributions								
411000 · Eastern Va Medical School	50,000	1.2%	-	50,000	1.2%	50,000	1.2%	-
412500 · George Mason University	50,000	1.2%	-	50,000	1.2%	50,000	1.2%	-
413100 · Old Dominion University	50,000	1.2%	-	50,000	1.2%	50,000	1.2%	-
413000 · University of Virginia	50,000	1.2%	-	50,000	1.2%	50,000	1.2%	-
412000 · Virginia Commonwealth	50,000	1.2%	-	50,000	1.2%	50,000	1.2%	-
410500 · Virginia Tech	50,000	1.2%	-	50,000	1.2%	50,000	1.2%	-
Total 410000 · Member University Contributions	300,000	7.2%	-	300,000	7.2%	300,000	7.2%	-
440000 · Other Sources (Interest income)	-	-	-	-	-	132	-	132
Total Income	4,050,000	100.0%	(98,750)	4,151,250	100.0%	4,097,632	100.0%	(53,618)
Expenses								
500000 · Program Expenses								
510000 · Collaborative Grant Program- Industry/Research Universities								
510900 · Round 9	-	0.0%	(30,000)	30,000	0.7%	30,000	0.7%	-
511000 · Round 10	25,000	0.6%	(58,000)	83,000	2.0%	320,700	7.8%	237,700
511100 · Round 11	780,700	19.3%	(262,000)	1,042,700	25.1%	25,000	0.6%	(1,017,700)
511200 · Round 12	753,178	18.6%	(246,822)	1,000,000	24.1%	621,454	15.2%	(378,546)
511300 · Round 13	1,151,966	28.4%	(348,034)	1,500,000	36.1%	1,028,034	25.1%	(471,966)
511400 · Round 14	1,391,297	34.4%	1,391,297	-	0.0%	632,500	15.4%	632,500
511500 · Round 15	2,250,000	55.6%	2,250,000	-	0.0%	632,500	15.4%	632,500
511600 · Round 14	2,250,000	55.6%	2,250,000	-	0.0%	632,500	15.4%	632,500
511901 · C1901 PBM-UVA	-	0.0%	-	-	0.0%	34,500	0.8%	34,500
511902 · C1902 ReAlta-ODU	-	0.0%	-	-	0.0%	-	0.0%	-
511903 · C1903-Serpin-UVA	-	0.0%	-	-	0.0%	-	0.0%	-
Total 510000 · Collaborative Grant Program- Industry/Research Universities	8,602,141	212.5%	4,946,441	3,655,700	88.0%	3,957,188	96.4%	301,488
590000 · Support and development								
590100 · Salaries and Benefits								
590110 · Salaries and Wages	367,250	9.1%	5,000	362,250	8.7%	355,000	8.7%	(7,250)
590120 · Payroll Taxes	25,350	0.6%	-	25,350	0.6%	23,396	0.6%	(1,954)
590130 · Other Benefits	24,000	0.6%	-	24,000	0.6%	24,000	0.6%	-
Total 590000 · Salaries and Benefits	416,600	10.3%	5,000	411,600	9.9%	402,396	9.9%	(9,204)
590200 · Program development								
590210 · Advertising/press releases	2,500	0.1%	-	2,500	0.1%	5,100	0.1%	2,600
590220 · Marketing and promotion	2,000	0.0%	2,000	-	0.0%	989	0.0%	989
590230 · Conferences	7,500	0.2%	-	7,500	0.2%	22	0.0%	(7,478)
590240 · Meals and Entertainment	2,000	0.0%	1,000	1,000	0.0%	1,109	0.0%	109
590250 · Memberships and sponsorships	20,000	0.5%	-	20,000	0.5%	5,487	0.1%	(14,513)
590260 · Travel and lodging	2,000	0.0%	-	2,000	0.0%	2,472	0.1%	472
590270 · Consulting fees	50,000	1.2%	50,000	-	0.0%	76,480	1.9%	76,480
590280 · Other program development exp.	-	0.0%	-	-	0.0%	1,000	0.0%	1,000
Total 590200 · Program development	86,000	2.0%	53,000	33,000	0.8%	92,659	2.2%	59,659
Total 590000 · Support and development	502,600	12.3%	58,000	444,600	10.7%	495,055	12.1%	50,455
Total 500000 · Program Expenses	9,104,741	224.8%	5,004,441	4,100,300	98.7%	4,452,243	108.5%	351,943

**Virginia Biosciences Health Research Corporation
Fiscal Year 2024 Budget**

	Fiscal Year 2024			Fiscal Year 2023				
	Proposed Budget	Budget Increase/ (Decrease)		Budget	Actual		Over (Under) Budget	
600000 · General and administrative								
604000 · Accounting services	22,469	0.6%	-	22,469	0.5%	22,463	0.5%	(6)
606000 · Audit and tax returns	16,500	0.4%	3,300	13,200	0.3%	15,500	0.4%	2,300
607000 · Bank fees	-	-	-	-	0.0%	57	-	57
608000 · Board of Directors Expense	1,000	0.0%	-	1,000	0.0%	-	0.0%	(1,000)
611100 · Catalyst Conference	-	0.0%	(97,200)	97,200	2.3%	104,374	2.5%	7,174
611000 · VIP Dinner	-	0.0%	(4,950)	4,950	0.1%	-	0.0%	(4,950)
615000 · Dues and Subscriptions	545	0.0%	-	545	0.0%	-	0.0%	(545)
612000 · Web Site	425	0.0%	-	425	0.0%	300	0.0%	(125)
616000 · Insurance	500	0.0%	-	500	0.0%	384	0.0%	(116)
617000 · Legal Expenses	15,000	0.4%	(5,000)	20,000	0.5%	10,300	0.3%	(9,700)
629000 · Miscellaneous operating expense	-	0.0%	-	-	0.0%	-	0.0%	-
618000 · Office and Computer Supplies	1,000	0.0%	-	1,000	0.0%	1,486	0.0%	486
619000 · Rent	3,600	0.1%	126	3,474	0.1%	3,600	0.1%	126
621000 · Parking	1,140	0.0%	-	1,140	0.0%	1,283	0.0%	143
622000 · Postage	100	0.0%	-	100	0.0%	126	0.0%	26
624000 · Telephone	1,000	0.0%	-	1,000	0.0%	724	0.0%	(276)
630000 · Stripe Payment Processing Fees	-	0.0%	-	-	0.0%	927	0.0%	927
Total 600000 · General and administrative	63,279	1.5%	(103,724)	167,003	3.8%	161,524	3.8%	(5,479)
Total Expenses	9,168,020	226.3%	4,900,717	4,267,303	102.5%	4,613,767	112.3%	346,464
NET INCOME	(5,118,020)	-126.3%	(4,999,467)	(116,053)	-2.5%	(516,135)	-12.3%	(400,082)

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FY 2024 Notes	
Cash on Hand	Cash on Hand for Awards and Operating Expenses as of June 2023 is \$11.75M
400500 - Program support	We are in the second year of the Biennium Budget and expect to receive \$3.25M for Program Support from the State of Virginia
401000 - General and admin support	We are in the second year of the Biennium Budget and expect to receive \$500K for Administration from the State of Virginia
511500 - Round 15	Total Expected Award \$2,500,000 with payout expected over 18 months
511600 - Round 16	Total Expected Award \$2,500,000 with payout expected over 18 months
590110 - Salaries and Wages	Reflects a \$5,000 bonus catchup for Suzanne
590130 - Other Benefits	Suzanne's Health Insurance \$2,000 per month
604000 · Accounting services	Includes monthly accounting services and payroll fees
606000 · Audit and tax returns	Includes a \$1,000 (approx 7%) increase

Appendix D: Grant Funding Rounds

D.1 Summary of Awarded Projects to Date

Grant Round 1 – December 2013

Virginia Polytechnic Institute and State University
Virginia Commonwealth University

BioTherapeutics, Inc.

Blacksburg, VA

<https://www.biotherapeuticsinc.com/>

Company status: active

Jan 2020: publicly traded as: **Landos BioPharma**

<https://landosbiopharma.com/about-us/our-company/>

Development of novel anti-inflammatory drugs

University of Virginia
George Mason University

HemoShear Therapeutics, LLC

Charlottesville, VA

<https://www.hemoshear.com/>

Company status: active

Commercialization of a human tumor microenvironment system for pharmaceutical cancer drug discovery and development

Virginia Polytechnic Institute and State University
University of Virginia

FirstString Research, Inc.

Roanoke, VA; Headquarters Mt. Pleasant, SC

<https://firststringresearch.com/>

Company status: active

Novel regenerative drug

University of Virginia
Virginia Commonwealth University

Cavion (formerly Tau Therapeutics)

Charlottesville, VA and Cambridge, MA

<https://cavionpharma.com/>

Company status: active

Determining the optimal dosing schedule for the commercialization of mibefradil in front-line glioblastoma

Grant Round 2 – March 2014

University of Virginia
Virginia Commonwealth University

Neoantigenics, Inc.

Charlottesville, VA

[https://www.linkedin.com/company/neoantigenics-inc./](https://www.linkedin.com/company/neoantigenics-inc/)

Company status: inactive

UVA-VCU partnership to develop radioimmunotherapeutic and imaging agents to a unique cell-surface target relevant for multiple human cancers

Virginia Commonwealth University
University of Virginia

Gencia, LLC

Charlottesville, VA

<http://genciabiotech.com/>

Company status: inactive

Reversing bioenergetic deficits and improving cognitive function in Alzheimer's Disease

Virginia Polytechnic Institute and State University
University of Virginia

SphynKx Therapeutics, LLC

Charlottesville, VA

<https://www.linkedin.com/company/sphynkx-therapeutics/>

Company status: inactive

Lead optimization of a SphK2 inhibitor for the treatment of CKD

Eastern Virginia Medical School
University of Virginia

LifeNet Health

Global Headquarters: Virginia Beach, VA

<https://www.lifenethealth.org/>

Company status: active

Enhancement of healing in diabetic wounds using a decellularized dermal matrix

Grant Round 3 – August 2014

Virginia Commonwealth University
Old Dominion University

Ultrasonic Probe, LLC

Glen Allen, VA

Company status: inactive

Ultrasonographic probe

**Virginia Polytechnic Institute and State University
University of Virginia**

PhenoCHIP Technologies, LLC
(formerly Proteo Biosciences)
Blacksburg, VA

Company status: inactive

<https://govtribe.com/vendor/phenochip-technologies-llc-blacksburg-va>

PhenoCHIP-phenotype-based cell hierarchy and isolation platform

**Old Dominion University
Eastern Virginia Medical School**

OncoSec Medical, Inc
San Diego, CA and Pennington, NJ
<https://oncosec.com/>

Company status: active

Biomarker-driven optimization of IL-12 gene electrotransfer for the treatment of melanoma

Grant Round 4 – August 2015

**Virginia Polytechnic Institute and State University
University of Virginia**

FirstString Research, Inc.
Roanoke, VA and Mt. Pleasant, SC
<https://firststringresearch.com/>

Company status: active

Clinical trial of new drug in dogs to treat brain cancer in humans

**Old Dominion University
Eastern Virginia Medical School
Embody, LLC**

Norfolk, VA
<https://embody-inc.com/>

Company status: active

Nanofabrication of tissue scaffolds

**Virginia Polytechnic Institute and State University
Virginia Commonwealth University**

BioTherapeutics, Inc.
Blacksburg, VA
<https://www.biotherapeuticsinc.com/>

Company status: active
Created Spin-off, public traded: **Landos BioPharma**
<https://landosbiopharma.com/about-us/our-company/>

Optimizing oral delivery of BT-11 as a clinical candidate for treating inflammatory bowel disease

**Virginia Commonwealth University
University of Virginia**

BrightSpec
Charlottesville, VA
<http://brightspec.com/>

Company status: active

Three wave mixing technique for chiral analysis in continuous process manufacturing

**George Mason University
Virginia Polytechnic Institute and State University**

Ceres Nanosciences, Inc.
Manassas, VA
<http://www.ceresnano.com/>

Company status: active

Nanotrap® tick-panel test development

Grant Round 5 – December 2015

**University of Virginia
George Mason University
Yale University**

Cavion
Charlottesville, VA and Cambridge, MA
<https://cavionpharma.com/>

Company status: active

Development of a biomarker assay and protocol for the commercialization of mibefradil dihydrochloride as a first-line treatment for glioblastoma

**Virginia Polytechnic Institute and State University
University of Virginia**

VoltMed, Inc.
Blacksburg, VA
<https://voltmeddevices.com/>

Company status: active

INSPIRE to fight brain cancer

Grant Round 6 – October 2016

**Virginia Polytechnic Institute and State University
University of Virginia
VoltMed, Inc.**

Company status: active

Blacksburg, VA
<https://www.linkedin.com/company/voltmed-inc./>

Commercialization of INSPIRE brain cancer treatment

**Virginia Polytechnic Institute and State University
Virginia Commonwealth University**

BioTherapeutics, Inc.
Blacksburg, VA
<https://www.biotherapeuticsinc.com/>

Company status: active

Development of BT-11: First-in-class oral therapeutic for Inflammatory Bowel Disease

**George Mason University
Virginia Commonwealth University**

Serpin Parma, LLC
Manassas, VA
<http://www.serpinpharma.com/>

Company status: active

Novel and potent anti-inflammatory drug with cardio-protective effects to treat myocardial injury and prevent heart failure

**Eastern Virginia Medical School
George Mason University**

Sanyal Biotechnology, LLC
Virginia Beach, VA
<https://www.sanyalbio.com/>

Company status: active
Merged with: MetabAxis, Richmond, VA
<https://metabaxis.com/>

Accelerating the commercialization of the Diamond™ mouse model of Nonalcoholic Steatohepatitis

**Old Dominion University
Eastern Virginia Medical School**

Pulse Biosciences, Inc.
Hayward, CA
<http://pulsebiosciences.com/>

Company status: active

Translational research with nanosecond pulsed electric fields for immuno-oncology applications

**Virginia Commonwealth University
University of Virginia**

Propagenix, Inc.
Rockville, MD
<http://www.propagenix.com/>

Company status: active

Bioengineering for the therapeutic delivery of massively expanded islet-derived human beta-cells

Grant Round 7 – July 2017

**Virginia Commonwealth University,
Virginia Polytechnic Institute and State University
Inova
George Mason University**

Indivior, PLC
Richmond, VA
<http://indivior.com/>

Company status: active

Novel Preventive Treatment Paradigm to Change the Standard of Care for Those Who Recover from Opioid Overdose

**Virginia Polytechnic Institute and State University
University of Virginia
Carilion**

BRAINBox Solutions
(Parent company: ImmunArray)
Richmond, VA
<https://brainboxinc.com/>

Company status: active

Virginia Brain Injury Diagnosis and Monitoring Initiative

**Eastern Virginia Medical School
Virginia Commonwealth University**

ReAlta Life Sciences, LLC
Norfolk, VA
<https://www.sbir.gov/sbirsearch/detail/1430737>

Company status: active

Development of peptide inhibitor of complement C1 as treatment for neonatal hypoxic-ischemic encephalopathy

Grant Round 8 – May 2018

**Old Dominion University
University of Virginia**

Embody, LLC
Vienna, VA
<https://govtribe.com/vendor/embody-llc-vienna-va>

Company status: active

Biofabrication of Regenerative Musculoskeletal Therapeutics

**Virginia Polytechnic Institute and State University
University of Virginia**

Continuum Biosciences, Inc.

Company status: active

Blacksburg, VA

<https://continuumbio.com/>

Development and commercialization of mitochondrial uncouplers

**Virginia Commonwealth University
University of Virginia
Virginia Polytechnic Institute and State University**

BrightSpec, Inc.

Company status: active

Charlottesville, VA

<http://brightspec.com/>

A major new chiral analysis technique for new drug discovery, development, and process control

**Virginia Commonwealth University
George Mason University**

Serpin Pharma, LLC

Company status: active

Manassas, VA

<http://www.serpinpharma.com/>

Novel anti-inflammatory drug: strong neuroprotective properties for treat of traumatic brain injury

**Old Dominion University
Eastern Virginia Medical School**

LifeNet Health

Company status: active

Global Headquarters: Virginia Beach, VA

<https://www.lifenethealth.org/>

Tissue preparations for therapeutic use in cardiovascular applications

**Virginia Commonwealth University
University of Virginia**

WynnVision, LLC

Company status: active

Richmond, VA

<https://www.wynnvision.com/>

Preventing Catheter Associated Infections

Grant Round 9 – May 2019

**Virginia Polytechnic Institute and State University
University of Virginia**

AgroSpheres, Inc.

Company status: active

Charlottesville, VA
<https://www.agrospheres.com/>

AgroSpheres-Enabled Biological Fungicide

**Virginia Commonwealth University
University of Virginia
Virginia Polytechnic Institute and State University**

BrightSpec, Inc.

Company status: active

Charlottesville, VA
<http://brightspec.com/>

Rapid Drug Development Using Molecular Rotational Resonance (MRR) for Structure Analysis

**University of Virginia
George Mason University**

Ceres Nanosciences, Inc.

Company status: active

Manassas, VA
<https://www.ceresnano.com/>

Nanotrap® Liquid Biopsy Collection Device (LBC) for Cancer Diagnostics

**University of Virginia
Eastern Virginia Medical School**

Perthera, Inc

Company status: active

McLean, VA
<https://perthera.com/>

Implementation and Clinical Impact of a Next Generation Precision Oncology Platform

Grant Round 10 – January 2020

**Virginia Polytechnic Institute and State University
University of Virginia**

CytoRecovery, Inc.

Company status: active

Blacksburg, VA
<https://www.cytorecovery.com/>

Microsystem for Label-Free Separation and Recovery of Tumor-Associated Cells from Biopsies for Precision Medicine

**Virginia Commonwealth University
University of Virginia**

InterLeukin Combinatorial Therapies, Inc. **Company status: active**
Richmond, VA
<https://aim-hiaccelerator.org/ilct/>

Commercializing a Novel Treatment for Metastatic Cancers

**University of Virginia
Virginia Polytechnic Institute and State University**

Lytos Technologies, LLC **Company status: active**
Charlottesville, VA
<https://www.lytotech.com/>

Design and Implementation of Green, Enzymatic Biofungicides for Pre- and Post-Harvest Crop Protection

**George Mason University
Virginia Polytechnic Institute and State University**

Monet Pharmaceuticals **Company status: active**
Manassas, VA
<https://opengovus.com/sam-entity/116975682>

Protein Painting of PD-1/PD-L1 for the Discovery of New Immune Checkpoint Inhibitors for the Treatment of Lung Cancer and Brain Metastasis

**University of Virginia
Virginia Commonwealth University**

RIVANNA Medical, LLC **Company status: active**
Charlottesville, VA
<https://rivannamedical.com/>

Automated 3D spinal navigation system for bedside lumbar puncture procedures

**Eastern Virginia Medical School
Virginia Commonwealth University**

Tympanogen, Inc. **Company status: active**
Richmond, VA
<http://www.tympanogen.com/>

Development of an applicator and training simulator for a gel patch for nonsurgical eardrum repair

Grant Round 11 – October 2020

**University of Virginia
Virginia Commonwealth University**

Contraline, Inc.
Charlottesville, VA
<http://www.contraline.com/>

Company status: active

Clinical Translation of a Male Contraceptive Procedure

**George Mason University
Eastern Virginia Medical School**

ISOThrive, Inc.
Healdsburg, CA
<https://pharma.iso thrive.com/>

Company status: active

Clinical Trial of Maltosyl-isomaltooligosaccharide (MIMO) to treat Gastroesophageal Reflux Disease (GERD), a Dysbiotic Infectious Disease, and its effect on Dysbiosis-Induced Carcinogenic Inflammation

**Virginia Commonwealth University
Old Dominion University**

Meru Biotechnologies, Inc.
Richmond, VA
<https://www.merubio.com/>

Company status: active

Innovative Bioanalytical Instrument for Improving Drug Discovery

Grant Round 12 – September 2021

**Virginia Polytechnic Institute and State University
University of Virginia**

Agrospheres, Inc.
Charlottesville, VA
<https://www.agrospheres.com/>

Company status: active
[June 2022: Partnership with Bayer](#)

Optimization and Commercialization of Environmentally-Sustainable Biofungicides

**University of Virginia
Virginia Commonwealth University**

Icarus Medical Innovations
Charlottesville, VA
<https://icarusmedical.com/>

Company status: active

Design Automation for Scaled Manufacturing of Advanced Custom Orthopedic Braces

**Eastern Virginia Medical School
Virginia Commonwealth University**

Tympanogen

Richmond, VA

<https://www.tympanogen.com/>

Company status: active

Pilot Study to Evaluate a Non-Surgical Gel Patch for Eardrum Repair in Human Patients

Grant Round 13 – May 2022

**University of Virginia
Virginia Commonwealth University**

Contraline, Inc.

Charlottesville, VA

<http://www.contraline.com/>

Company status: active

Development of a Medical Device for Intraluminal Implantations of a Male Contraceptive Hydrogel

**Virginia Commonwealth University
George Mason University**

Pascal Medical Corporation

Richmond, VA

<https://pascalmed.com/>

Company status: active

Orthopedic Surgical Site Infection Prevention via Controlled, Sustained, Targeted and Localized Antibiotic Releasing Click Hydrogel

**University of Virginia
Virginia Commonwealth University
Virginia Polytechnic Institute and State University**

Slate Bio, Inc.

Richmond, VA

<https://slatebio.com/>

Company status: active

Development of a First-in-Class Bifunctional Fusion Cytokine Therapy that Targets T_{regs} and Tissue Resident T_{regs} for the Treatment of Lupus and other Autoimmune Diseases

**University of Virginia
Virginia Commonwealth University**

SoundPipe Therapeutics

Charlottesville, VA

<https://www.sound-pipe.com/>

Company status: active

Preparing an Ultrasound Enhanced Drug Delivery System for First-in-Human

Grant Round 14 – May 2023

**Virginia Polytechnic Institute and State University
University of Virginia**

AMPEL BioSolutions, LLC

Company status: active

Charlottesville, VA

<https://ampelbiosolutions.com/>

RNA Based Precision Medicine for Lupus Disease Management

**University of Virginia
Virginia Commonwealth University**

Liquet Medical, Inc.

Company status: active

Glen Allen, VA

<https://www.liquetmedical.com/>

*Commercialization of Intelligent Data-Driven Pulmonary Embolism Endovascular Therapy:
The Versus™ Solution*

**Virginia Polytechnic Institute and State University
University of Virginia**

The Tiny Cargo Company

Company status: active

Roanoke, VA

<https://tinycargo.com/>

A Novel Platform for Treatment of High Dose Ionizing Radiation

**George Mason University
Virginia Polytechnic Institute and State University**

Virongy Biosciences

Company status: active

Manassas, VA

<https://virongy.com/>

A Hybrid Alpha-pseudovirus, Multi-viral Nasal Vaccine Platform

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D.2 Summary of Economic Returns to Date

Collaborators	Amount of Grant Award	Matching Funds	Follow on Funding	Job Creation (FTE)
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Grant Round 1 - December 2013

VT, VCU	BioTherapeutics Inc. Blacksburg, VA	\$400,000	\$400,000	\$10,000,000	15
UVA, VCU	Tau Therapeutics (Cavion LLC) Charlottesville, VA	\$200,000	\$238,000	\$26,100,000	2.5
VT, UVA	First String Research Roanoke, VA and Mt. Pleasant, SC	\$200,000	\$1,000,000	\$3,000,000	10
UVA, GMU	HemoShear LLC Charlottesville, VA	\$450,000	\$800,000	\$14,000,000	12
	Subtotal Round 1	\$1,250,000	\$2,438,000	\$53,100,000	39.5

Grant Round 2 - March 2014

VCU, UVA	Gencia, LLC Charlottesville, VA	\$400,000	\$400,000	\$8,800,000	2
UVA, VCU	Neoantigenics LLC Charlottesville, VA	\$348,729	\$2,000,000	\$3,000,000	1
VT, UVA	SphynKx Therapeutics Charlottesville, VA	\$400,000	\$400,000	\$150,000	4
EVMS, UVA	LifeNet Health Virginia Beach, VA	\$255,000	\$255,000	\$5,000	3
	Subtotal Round 2	\$1,403,729	\$3,055,000	\$11,955,000	10

Grant Round 3 - August 2014

VT, UVA	PhenoCHIP Blacksburg, VA	\$270,000	\$386,000	\$450,000	5
ODU, EVMS	OncoSec Medical San Diego, CA	\$585,000	\$2,750,000	\$8,700,000	3.5
VCU, ODU	US Probe Glen Allen, VA	\$406,000	\$536,000	\$450,000	5.5

	Subtotal Round 3	\$1,261,000	\$3,672,000	\$9,600,000	5
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Collaborators	Amount of Grant Award	Matching Funds	Follow on Funding	Job Creation (FTE)
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Grant Round 4 - August 2015

GMU, VT	Ceres Nanosciences Manassas, VA	\$500,000	\$500,000	\$5,000,000	13
VT, UVA	First String Research Roanoke, VA Mt Pleasant, SC	\$290,000	\$500,000	\$3,500,000	2
ODU, EVMS	Embody LLC Norfolk, VA	\$634,500	\$725,000	\$3,600,000	5
VT, VCU	BioTherapeutics Inc. Blacksburg, VA	\$400,000	\$400,000	\$62,500,000	14
UVA, VCU	BrightSpec, Inc Charlottesville, VA	\$400,000	\$400,000	\$2,150,000	6
	Subtotal Round 4	\$2,224,500	\$2,525,000	\$76,750,000	27

Grant Round 5 - December 2015

UVA, GMU	Cavion Charlottesville, VA	\$306,985	\$352,862	\$26,100,000	2.5
VT, UVA	VoltMed, Inc. Blacksburg, VA	\$380,000	\$1,200,000	\$2,000,000	12
	Subtotal Round 5	\$686,985	\$1,552,862	\$28,100,000	14.5

Grant Round 6 - October 2016

VT, UVA	VoltMed, Inc. Blacksburg, VA	\$800,000	\$800,000	\$3,894,000	8
VT, VCU	BioTherapeutics Inc. Blacksburg, VA	\$800,000	\$800,000	\$188,000,000	12
GMU, VCU	Serpin Pharma Manassas, VA	\$400,000	\$400,000	\$2,700,000	4.5
EVMS, GMU	Sanyal Biotechnology Virginia Beach, VA	\$100,000	\$100,000	\$580,000	3
ODU, EVMS	Pulse Biosciences Burlingame, CA	\$300,000	\$300,000	\$5,361,863	2
VCU, UVA	Propagenix	\$425,000	\$1,200,000	\$220,000	1

	Rockville, MD				
	Subtotal Round 6	\$2,825,000	\$3,600,000	\$200,755,863	29.5
	Collaborators	Amount of Grant Award	Matching Funds	Follow on Funding	Job Creation (FTE)

Grant Round 7 - July 2017

VCU, VT, Inova	Indivior, Inc. Richmond, VA	\$500,000	\$500,000	\$0	2
UVA, VT, Carilion	BRAINBox, LLC Richmond, VA	\$500,000	\$500,000	\$0	2
EVMS, VCU	ReAlta Life Sciences, LLC Norfolk, VA	\$400,000	\$400,000	\$12,000,000	4
	Subtotal Round 7	\$1,400,000	\$1,400,000	\$12,000,000	8

Grant Round 8 - June 2018

VCU-UVA-VT	BrightSpec, Inc. Charlottesville, VA	\$400,000	\$400,000	\$1,850,000	2
VT, UVA	Continuum Biosciences, Inc Blacksburg, VA	\$400,000	\$800,000	\$4,289,000	9
ODU, UVA	Embody, LLC Norfolk, VA	\$800,000	\$2,400,000	\$155,950,000	55
ODU, EVMS	LifeNet Health Virginia Beach, VA	\$250,000	\$250,000	\$0	3
GMU, VCU	Serpin Pharma Manassas, VA	\$350,000	\$350,000	\$2,600,000	2
VCU, UVA	WynnVision, LLC Richmond, VA	\$510,000	\$1,491,266	\$2,616,107	5
	Subtotal Round 8	\$2,710,000	\$5,691,266	\$167,305,107	76

Grant Round 9 - April 2019

VT, UVA	AgroSpheres, Inc. Charlottesville, VA	\$600,000	\$600,000	\$8,800,000	9
VCU, UVA, VT	BrightSpec, Inc. Charlottesville, VA	\$400,000	\$400,000	\$5,800,000	5
UVA, GMU	Ceres Nanoscience, Inc. Manassas, VA	\$600,000	\$1,200,000	\$14,700,000	4
UVA, EVMS	Perthera, Inc. McLean, VA	\$500,000	\$1,000,000	\$0	2

	Subtotal Round 9	\$2,100,000	\$3,200,000	\$29,300,000	20
Collaborators		Amount of Grant Award	Matching Funds	Follow on Funding	Job Creation (FTE)

Grant Round 10 - October 2019

VT, UVA	CytoRecovery, Inc. Blacksburg, VA	\$400,000	\$400,000	\$1,426,000	9
VCU, UVA	InterLeukin ComTherapies, Richmond, VA	\$700,000	\$700,000	\$2,715,000	15
UVA, VT	Lytos Technologies, LLC Charlottesville, VA	\$500,000	\$500,000	\$310,000	3
GMU, UVA	Monet Pharmaceuticals Nokesville, VA	\$400,000	\$400,000	\$0	0
UVA, VCU	RIVANNA Charlottesville, VA	\$800,000	\$800,000	\$19,425,340	16
EVMS, VCU	Tympanogen Richmond, VA	\$500,000	\$1,500,000	\$1,325,000	3
	Subtotal Round 10	\$3,300,000	\$4,300,000	\$25,201,340	46

Grant Round 11 - October 2020

open	UVA, VCU	Contraline Charlottesville, VA	\$600,000	\$1,005,000	\$7,200,000	4
	GMU, EVMS, UVA	ISOThrive Healdsburg, CA	\$800,000	\$3,200,000	\$0	3
	VCU, ODU	Meru Richmond, VA	\$700,000	\$700,000	\$1,089,000	7
		Subtotal Round 11	\$2,100,000	\$4,905,000	\$8,289,000	14

Grant Round 12 - September 2021

open	VT, UVA	AgroSpheres, Inc. Charlottesville, VA	\$600,000	\$1,900,000	\$25,500,000	9
	UVA, VCU	Icarus Medical Innovations Charlottesville, VA	\$600,000	\$600,000	\$325,000	15
open	EVMS, VCU	Tympanogen, Inc. Richmond, VA	\$737,369	\$737,369	\$0	0
		Subtotal Round 12	\$1,937,369	\$3,237,369	\$25,825,000	24

Collaborators	Amount of Grant Award	Matching Funds	Follow on Funding	Job Creation (FTE)
---------------	-----------------------	----------------	-------------------	--------------------

Grant Round 13 - May 2022

open	UVA, VCU	Contraline, Inc. Charlottesville, VA	\$700,000	\$700,000	\$4,700,000	0
open	VCU, GMU	Pascal Medical Corp. Richmond, VA	\$375,000	\$430,000	\$300,000	0
open	UVA, VCU, VT	Slate Bio, Inc. Charlottesville, VA	\$575,000	\$575,000	\$0	0
open	UVA, VCU	SoundPipe Therapeutics Charlottesville, VA	\$600,000	\$1,243,000	\$0	0
Subtotal Round 13			\$2,250,000	\$2,948,000	\$5,000,000	0

Grant Round 14 - March 2023

open	VT, UVA	AMPEL Charlottesville, VA	\$800,000	\$800,000	\$25,000	0
open	UVA, VCU	Liquet Medical, Inc. Glen Allen, VA	\$368,797	\$368,797	\$405,000	0
open	VT, UVA	The Tiny Cargo Company Roanoke, VA	\$350,000	\$350,000	\$0	0
open	GMU, VT	Virongy Biosciences Manassas, VA	\$500,000	\$500,000	\$0	0
Subtotal Round 13			\$2,018,797	\$2,018,797	\$430,000	0

	Amount of Grant Award	Matching Funds	Follow on Funding	Job Creation
Totals:	\$27,467,380	\$44,543,294	\$653,611,310	314

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D.3 Summary of COVID-19 Grant Round

D.3.a. Members of Subject Matter Expert Consultant Panel

The following individuals were selected by the Virginia Catalyst Board of Directors to serve as subject matter experts (SME) for purposes of conducting the COVID-19 Grant Round:

- **Antonio Abbate, MD, PhD**
'Roberts' Professor of Cardiology,
 Medical Director Clinical Research Unit
 Associate Director of the *'Write'* Center for Clinical and Translational Research
 Virginia Commonwealth University, Richmond, VA

- **Carla Finkelstein, PhD**
 Scientific Director, Molecular Diagnostics Laboratory
 Fralin Biomedical Research Institute, Roanoke, VA

- **Arun Sanyal, MD**
 Professor of Medicine, Associate Director Education Core Center for Clinical and
 Translational Research
 Virginia Commonwealth University, Richmond, VA

- **Paul Skolnik, MD, FACP, FIDSA**
 Chair and Professor of Medicine, Virginia Tech Carilion
 Senior Vice President, Carilion Clinic, Roanoke, VA

D.3.b. Summary of Awarded Projects

University of Virginia

PBM C19 Research, LLC
 Charlottesville, VA

Company status: active
 Completed project

Clinical Trial of Dupilumab to Block IL-13 in Severe COVID-19

Old Dominion University

ReAlta Life Sciences
 Norfolk, VA
<https://realtalifesciences.com/>

Company status: active
 Team closed project prior to disbursements

RLS-0071 to Treat Acute Lung Injury Related to COVID-19

University of Virginia

Serpin Pharma, LLC
 Manassas, VA
<https://serpinpharma.com/>

Company status: active
 Open project, progressing towards Milestones

SP16 as a Therapeutic for SARS-CoV-2 Induced ARDS

D.3.c. Summary of Economic Returns to Date

Collaborators	Amount of Grant Award	Matching Funds	Follow on Funding	Job Creation (FTE)
---------------	-----------------------	----------------	-------------------	--------------------

COVID-19 Grant Round

UVA	PBM C19 Research, LLC Charlottesville, VA	\$345,000	\$345,000	\$1,000,000	2
ODU	ReAlta Life Sciences Norfolk, VA	\$3,390,000	\$3,390,000	\$0	0
EVMS, VCU	Serpin Pharma, LLC Manassas, VA	\$1,250,000	\$2,350,000	\$2,440,778	0
Total COVID-19 Round		\$4,985,000	\$6,085,000	\$3,440,778	2

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Appendix E: Press Releases

E.1. Catalyst Conference Keynote Speaker



Media Contact:

A.J. Guenther

Yes&

(703) 823-1600

aj@yesandagency.com

NOT FOR IMMEDIATE RELEASE

Virginia Catalyst Announces Dr. Joni L. Rutter as Keynote Speaker for Catalyst Life Sciences Conference

A Major Life Science Conference Focused on Commercializing Virginia's Innovations

RICHMOND, VA – August 11, 2022 – The Virginia Catalyst, also known as the Virginia Biosciences Health Research Corporation (VBHRC), announces Dr. Joni L. Rutter as the Keynote Speaker for the Catalyst Life Sciences Conference, to be held October 6-7, 2022 at the Omni, Downtown Richmond, Virginia.

Joni L. Rutter, Ph.D., is the Acting Director of the National Center for Advancing Translational Sciences (NCATS) at the National Institutes of Health (NIH). NCATS was established to transform the translational process so that new treatments and cures for disease can be delivered to patients faster.

Dr. Rutter is responsible for planning and executing the Center's complex and multifaceted preclinical and clinical programs. Before joining NCATS, she served as the Director of Scientific Programs within the *All of Us* Research Program of the Precision Medicine Initiative (NIH) and prior to that as Director of the Division of Neuroscience and Behavior at the National Institute on Drug Abuse. Dr. Rutter received her Ph.D. from Dartmouth Medical School and completed a fellowship at the National Cancer Institute. She is recognized for her work in basic and clinical research in human genetics and in the study of genetic and environmental risk factors focusing on the fields of cancer and addiction. Her primary scientific objective is to use translational science as a means to provide all people with more treatments more efficiently.

"I look forward to speaking at the Virginia Catalyst Conference, a forum that serves as an engine of innovation to businesses, healthcare systems, and universities focused on advancing translational research and technologies to improve disease prevention, detection, and treatment."

- Dr. Joni L. Rutter

"The Virginia Catalyst, our major Virginia based research universities, VABIO and our industry partners are delighted to have Dr. Rutter as our keynote speaker. We share her passion for

advancing transitional research, as well as commercializing our life science innovations. Through a collaborative ecosystem with industry, we are improving human health and further developing our life science economy by creating innovative companies, capital formation, and job creation,” said Michael Grisham, President & CEO, Virginia Catalyst.

For more information about the Catalyst Life Sciences Conference, including the full agenda and speakers, visit: <https://www.virginiacatalyst.org/overview.html>

To register visit: <https://www.virginiacatalyst.org/registration.html>

About Virginia Catalyst

Virginia Biosciences Health Research Corporation (VBHRC), doing business as Virginia Catalyst, has a vision of advancing life sciences throughout Virginia as a means of addressing large unmet medical needs to improve human health and to create high-paying jobs throughout the Commonwealth. Funded by the Virginia General Assembly’s General fund, the University of Virginia, Virginia Commonwealth University, Virginia Tech, Eastern Virginia Medical School, George Mason University, and Old Dominion University. Virginia Catalyst has funding opportunities to support collaborative projects in the Commonwealth. For more information, visit www.VirginiaCatalyst.org

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E.2. Catalyst Conference Registration



Media Contact:

A.J. Guenther

Yes&

(703) 823-1600

aj@yesandagency.com

FOR IMMEDIATE RELEASE

Registration Now Open for the Catalyst Life Sciences Conference

A Major Life Sciences Conference Will Focus on Commercializing Virginia's Innovations

RICHMOND, VA – August 15, 2022 – The Virginia Catalyst, also known as the Virginia Biosciences Health Research Corporation (VBHRC), announced today that registration is open for the Catalyst Life Sciences Conference. The event will be held October 6-7, 2022 at the Omni Hotel, Downtown Richmond, Virginia.

This conference is designed for scientists, engineers, entrepreneurs, incubators and biohubs, life science companies, technology transfer departments and economic development departments. The format consists of expert panels sharing their knowledge and engaging in dialog with the audience.

Joni L. Rutter, Ph.D. will be a keynote speaker. Dr. Rutter is the Acting Director of the National Center for Advancing Translational Sciences (NCATS) at the National Institutes of Health (NIH). NCATS was established to transform the translational process so that new treatments and cures for disease can be delivered to patients faster.

Expert panel topics include: Best Practices for Building a High-Potential Company, Scientists and Engineers as Entrepreneurs, Raising Capital, Establishing and Building Ecosystems, Growing Pharmaceutical Manufacturing and R-D Cluster, and Partnering with Companies and Healthcare Systems. For the full agenda and speakers, visit:

<https://www.virginiacatalyst.org/agenda.html>

“The Virginia Catalyst and our major Virginia-based research universities, along with Virginia Bio are excited to host a major life sciences conference to share best practices and encourage collaborations. It is through this collaborative ecosystem that we are improving human health and further developing our life science economy by creating innovative companies, capital formation, and job creation,” said Michael Grisham, President & CEO, Virginia Catalyst.

To register scan:



or visit:

<https://www.virginiacatalyst.org/registration.html>

About Virginia Catalyst

Virginia Biosciences Health Research Corporation (VBHRC), doing business as Virginia Catalyst, has a vision of advancing life sciences throughout Virginia as a means of addressing large unmet medical needs to improve human health and to create high-paying jobs throughout the Commonwealth. Funded by the Virginia General Assembly's General fund, the University of Virginia, Virginia Commonwealth University, Virginia Tech, Eastern Virginia Medical School, George Mason University, and Old Dominion University. Virginia Catalyst has funding opportunities to support collaborative projects in the Commonwealth. For more information, visit www.VirginiaCatalyst.org

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E.3 Grant Round 13: Awarded Projects



FOR IMMEDIATE RELEASE

Virginia Catalyst Awards \$2.25 Million in Grants to Support Life Sciences in the Commonwealth

Four collaborative projects involving Virginia research universities and industry selected to address major unmet healthcare needs, drive economic growth in Virginia

RICHMOND, VA – September 15, 2022 – The Virginia Catalyst, also known as the Virginia Biosciences Health Research Corporation (VBHRC), today announced that it has awarded \$2.25 million in grants to four life and bioscience projects in the Commonwealth of Virginia. These grants, which will be met with significant matching funds from partner companies, were awarded through Grant Round 13 of Virginia Catalyst’s ongoing mission to stimulate economic development by promoting collaborative projects that address large, unmet needs for improving human health, and that can create high-paying jobs in the Commonwealth.

“We are excited to continue our mission of supporting collaborations and fostering economic growth in Virginia’s life sciences, enabling the Commonwealth to compete on a national and global scale,” said Mike Grisham, CEO, Virginia Catalyst. “The critical mass achieved by these collaborations provides Virginia with competitive advantages over other states and has resulted in significant outside capital being invested to finance the commercialization of Virginia’s innovations and create significant high-paying jobs for the Commonwealth.”

Through this 13th round of funding, Virginia Catalyst has awarded 53 grants totaling \$25.6 million, resulting in over \$47 million in matching funds and an additional \$300 million in follow-on funding to date.

The awards, which range from \$200,000 to \$800,000, help fund collaborative efforts between industry and Virginia research universities with the goal of:

- Funding innovative, collaborative, translational research projects that elevate the level of sponsored research at Virginia’s universities and have the potential to significantly improve human health and create high value jobs in the Commonwealth
- Accelerating commercialization of Virginia research university inventions and discoveries and to achieve competitive critical mass through robust collaborations of Virginia research universities and industry

Grant Round 13 project awardees:

Project: *Development of a Medical Device for Intraluminal Implantations of a Male Contraceptive Hydrogel*

- Company: [Contraline, Inc.](#) (Charlottesville, VA)
- University collaborators: University of Virginia and Virginia Commonwealth University
- Funding amount: \$700,000

Project: Orthopedic Surgical Site Infection Prevention via Controlled, Sustained, Targeted, and Localized Antibiotic-Releasing Click Hydrogel

- Company: [Pascal Medical Corp](#) (Richmond, VA)
- University collaborators: Virginia Commonwealth University and George Mason University
- Funding amount: \$375,000

Project: Development of a First-in-Class Bifunctional Fusion Cytokine Therapy that Targets T_{regs} and Tissue Resident T_{regs} for the Treatment of Lupus and other Autoimmune Diseases

- Company: [Slate Bio, Inc.](#) (Charlottesville, VA)
- University collaborators: University of Virginia, Virginia Commonwealth University, Virginia Tech
- Funding amount: \$575,000

Project: Preparing an Ultrasound Enhanced Drug Delivery System for First-in-Human Studies

- Company: [SoundPipe Therapeutics](#) (Charlottesville, VA)
- University collaborators: University of Virginia and Virginia Commonwealth University
- Funding amount: \$600,000

Supporting Quotes

"Contraline is excited to have been awarded this Virginia Catalyst grant to advance the development of our male contraceptive, ADAM. This grant will support a collaboration between our talented team of scientists and engineers as well as leading urologists at UVA and VCU. The need for male contraception is greater now more than ever; unintended pregnancies are at an all-time high and we may see an increase in the following years. We are as passionate as ever to bring our product to market and provide people with more contraceptive options."

– Kevin Eisenfrats, Chief Executive Officer, Contraline, Inc.

"Pascal Medical Corp is incredibly grateful for being selected for the highly competitive Virginia Catalyst round 13 commercialization grant award. Surgical site infections are life-threatening and devastating for millions of Americans annually. Collaborating with the prodigious and creative labs of Dr. Barbara Boyan at VCU and Dr. Monique Van Hoek at GMU, Catalyst funding is propelling advanced R&D of our revolutionary ClickGel product for localized, controlled, and sustained antimicrobial release in orthopaedic surgical sites. The Catalyst provides a rare and coveted source of non-dilutive funding for studies required for FDA submission while also building strong bridges between Virginia's exemplary Universities and burgeoning MedTech companies. Thanks to the visionary Team at VBHRC for this opportunity to grow our company in the great city of Richmond, VA."

– Michael Francis, Chief Executive Officer, Pascal Medical Corp

"Slate Bio is honored to be selected by the VBHRC Catalyst to receive a grant in support of its first-in-class product for the treatment of Lupus and other autoimmune diseases. Slate Bio is developing paradigm shifting engineered cytokines for immune modulation that induces persistent remission in Lupus and other autoimmune diseases. Current Lupus therapies use

maintenance immunosuppression, causing significant long term side effects. Clinical studies have demonstrated the importance of restoring T regulatory (Tregs) cells via IL-2 therapy, which has a short half-life. New clinical programs primarily address extending the short half-life of IL-2. However, there is a tremendous need for a new class of biologic that activates circulating Tregs as well as the more effective Tissue-targeting Tregs to restore the immune balance in the tissue micro-environment to offer a more potent, durable, and reparative effect over IL-2 alone. Slate is grateful for the support of this product, SLT-518, which is the first bi-specific engineered fusion of IL-2 to IL-33. With the collaboration with UVA, VT and VCU, Slate is uniquely positioned to improve the lives of those with autoimmune diseases.

– Andrew Krouse, President and Chief Executive Officer, Slate Bio, Inc.

"Our team is grateful for the support from Virginia Catalyst in bringing our vascular drug delivery ultrasound catheter, Penello, a step closer to improving outcomes for Peripheral Artery Disease patients, who too frequently find themselves facing amputation as their only medical option. Virginia Catalyst funding will allow us to perform preclinical validation of Penello with Dr. Klibanov of UVA, and Drs. Levy and Mangino of VCU. This in turn, will position Penello for first-in-human studies as well as maintain our focus on bringing this technology to market."

– Joseph Kilroy, Cofounder and Chief Executive Officer, SoundPipe Therapeutics

About Virginia Catalyst

Virginia Biosciences Health Research Corporation (VBHRC), doing business as Virginia Catalyst, has a vision of advancing life sciences throughout Virginia as a means of addressing large unmet medical needs to improve human health and to create high-paying jobs throughout the Commonwealth. Funded by the Virginia General Assembly's General fund, the University of Virginia, Virginia Commonwealth University, Virginia Tech, Eastern Virginia Medical School, George Mason University, and Old Dominion University. Virginia Catalyst has funding opportunities to support collaborative projects in the Commonwealth. For more information, visit www.virginiacatalyst.org.

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E.4 Grant Round 14: Awarded Projects



Media Contact:

A.J. Guenther

Yes&

(703) 823-1600

aj@yesandagency.com

FOR IMMEDIATE RELEASE

Virginia Catalyst Awards \$2 Million in Grants to Support Life Sciences in the Commonwealth

Four collaborative projects involving Virginia research universities and industry partners selected to address major unmet healthcare needs, drive job creation and capital formation in Virginia

RICHMOND, VA – May 18, 2023 – The Virginia Catalyst, also known as the Virginia Biosciences Health Research Corporation (VBHRC), today announced that it has awarded \$2 million in grants to four life and bioscience projects in the Commonwealth of Virginia, pending execution of the grant agreements. These grants, which will be met with significant matching funds from partner companies, were awarded through Grant Round 14 of Virginia Catalyst’s ongoing mission to stimulate economic development by promoting collaborative projects that address large, unmet needs for improving human health, and that can create high-paying jobs in the Commonwealth.

“We are excited to continue our mission of supporting collaborations and fostering economic growth in Virginia’s life sciences, enabling the Commonwealth to compete on a national and global scale,” said Mike Grisham, CEO, Virginia Catalyst. “The critical mass achieved by these collaborations provides Virginia with competitive advantages over other states and has resulted in significant outside capital being invested to finance the commercialization of Virginia’s innovations and create significant high-paying jobs for the Commonwealth.”

Through this 14th round of funding, Virginia Catalyst has awarded 57 grants totaling \$27 million, resulting in over \$44 million in matching funds and an additional \$665 million in follow-on funding to date.

The awards, which range from \$200,000 to \$800,000, help fund collaborative efforts between industry and Virginia research universities with the goal of:

- Funding innovative, collaborative, translational research projects that elevate the level of sponsored research at Virginia’s universities and have the potential to significantly improve human health and create high value jobs in the Commonwealth
- Accelerating commercialization of Virginia research university inventions and discoveries and to achieve competitive critical mass through robust collaborations of Virginia research universities and industry

Grant Round 14 project awardees:

Project: RNA Based Precision Medicine for Lupus Disease Management

- Company: [AMPEL BioSolutions, LLC](#) (Charlottesville, VA)
- University collaborators: Virginia Tech and University of Virginia
- Funding amount: \$800,000

Project: Commercialization of Intelligent Data-Driven Pulmonary Embolism Endovascular Therapy: The Versus™ Solution

- Company: [Liquet Medical Inc.](#) (Glen Allen, VA)
- University collaborators: University of Virginia and Virginia Commonwealth University
- Funding amount: \$368,797

Project: A Novel Platform for Treatment of High Dose Ionizing Radiation

- Company: [The Tiny Cargo Company](#) (Roanoke, VA)
- University collaborators: Virginia Tech and University of Virginia
- Funding amount: \$350,000

Project: A Hybrid Alpha-pseudovirus, Multi-viral Nasal Vaccine Platform

- Company: [Virongy Biosciences](#) (Manassas, VA)
- University collaborators: George Mason University and Virginia Tech
- Funding amount: \$500,000

Supporting Quotes

"As a homegrown Virginia company, [AMPEL BioSolutions](#) is thrilled to receive this Virginia Catalyst award. Funds will accelerate AMPEL's commercialization of breakthrough precision medicine testing for autoimmune diseases such as Systemic Lupus Erythematosus. AMPEL's scientific team as well as colleagues at UVA and Virginia Tech are passionate about translating a patient's gene expression profile into clinical decision support for physicians. We are very grateful for the support of the prestigious Virginia Catalyst to help us fulfill our mission."

– Amrie C. Grammer PhD, Co-Founder, President, & Chief Scientific Officer, AMPEL BioSolutions, LLC

"[Liquet Medical](#) is extremely grateful to the VBHRC for the resources that will help bring our first product – the Versus™ Catheter – through FDA Clearance and commercialization. The Versus™ Catheter is a localized drug delivery catheter to treat blood clots in the lungs. This device allows for a personalized approach to each patient through real-time biometric data monitoring. It will also speed time-to-treatment and lower healthcare costs. The funds from Virginia Catalyst grant will be used towards meaningful milestones, including final regulatory product testing this year and first-in-human studies in 2024. We are pleased to have several project collaborators here in the commonwealth, including Dr. Luke Wilkins at the University of Virginia and Dr. Martin Mangino at Virginia Commonwealth University."

– Derek Hall, Co-Founder and Chief Operating Officer, Liquet Medical, Inc.

"[The Tiny Cargo Company](#) is honored to be awarded a prestigious VBHRC Catalyst commercialization award. In collaboration with Dr. Robert Gourdie at [Fralin Biomedical Research Institute](#), Virginia Tech & Dr. Rachel Letteri at the University of Virginia, this award will support Tiny Cargo in continuing to advance our innovative therapeutic platform. With millions of patients worldwide dealing with the side-effects of radiation therapy, and the planet facing renewed nuclear threats, safe and effective radiotherapeutic medical countermeasures have never been more needed. Our therapy provides an avenue to a shelf-stable powder formulation capable of whole-body radioprotection from a simple orally administered dose; with support from the VBHRC Catalyst program, we plan to translate our therapy to large animal models, setting the stage for FDA IND approval, clinical testing and commercialization."

– Spencer Marsh, Chief Scientific Officer, The Tiny Cargo Company

"[Virongy Biosciences](#) is honored to be recognized by the VBHRC's Virginia Catalyst Emerging Entrepreneurship Program. Virongy's mission is to improve global health by accelerating discovery with innovative virological technologies. With this Round 14 grant funding and together with our partners Dr. Yuntao Wu of George Mason University and Dr. Kylene Kehn-Hall of Virginia Tech, we will develop the next generation of vaccines utilizing our hybrid alpha-pseudovirus technology. This novel platform has the potential to offer a highly adaptable system for multiple viruses, superior delivery mechanisms, and higher innate and adaptive immune responses which can stimulate both mucosal and systematic immunity. The sum accumulation of this work has the potential to impact billions of lives and provide an immediate economic impact for Virginia's emerging biotech industry."

– Brian Hetrick, Chief Executive Officer, Virongy Biosciences Inc.

About Virginia Catalyst

Virginia Biosciences Health Research Corporation (VBHRC), doing business as Virginia Catalyst, has a vision of advancing life sciences throughout Virginia as a means of addressing large unmet medical needs to improve human health and to create high-paying jobs throughout the Commonwealth. Funded by the Virginia General Assembly's General fund, the University of Virginia, Virginia Commonwealth University, Virginia Tech, Eastern Virginia Medical School, George Mason University, and Old Dominion University. Virginia Catalyst has funding opportunities to support collaborative projects in the Commonwealth. For more information, visit www.virginiacatalyst.org.

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E.5 Grant Round 15: Call for Proposals



FOR IMMEDIATE RELEASE

Media Contact:

A.J. Guenther
 Yes&
 (703) 338-5657
aj@yesandagency.com

Virginia Catalyst Announces Round 15 of Grant Funding *Could you use \$200,000 to \$800,000 in a Non-Dilutive Grant?*

RICHMOND, VA – April 12, 2023– The Virginia Catalyst, also known as the Virginia Biosciences Health Research Corporation (VBHRC), today announced that it is accepting letters of intent (LOI) for Grant Round 15 to fund the development and commercialization of life science projects that address major unmet needs for improving human health and advance Virginia’s economy.

“When you combine world class research with entrepreneurial management and capital, then stir, good things happen,” said Mike Grisham, CEO of Virginia Catalyst. “We are looking for passionate research scientists and entrepreneurial leaders in high-growth life science businesses in Virginia who could use \$200,000 to \$800,000 in non-dilutive grant funding to further a project that improves human health and advances economic development in the Commonwealth. Our Grant Round 15 is now open, and we strongly encourage interested parties to visit the [Virginia Catalyst website](#) and apply.”

[Letters of Intent \(LOI\)](#) must be received by June 20, 2023 at 5:00 PM EDT. Projects that meet funding criteria will be invited to submit a full application. Applications will be reviewed and scored by an independent review team of scientists, venture capitalists and CEOs of Virginia-based life science companies. The top eight applicant teams will be invited to present their proposal the week of September 25, 2023. Awards will be announced at the end of September 2023. The LOI submission form, along with funding criteria and frequently asked questions, are available on the Virginia Catalyst website (www.virginiacatalyst.org/apply.html).

We encourage all interested applicant teams to view our webinar that was co-hosted by Virginia Catalyst and Virginia Bio. This webinar featured an expert panel, facilitated by Mike Grisham, CEO of Virginia Catalyst, to share what it takes to score highly, get funding and position your company and research university for significant follow-on funding from large corporations, venture capitalists, DARPA, NIH and philanthropic foundations. This webinar can be viewed, and the slides downloaded on the home page of Virginia Catalyst at: <https://www.virginiacatalyst.org/>

Cumulatively through the first fourteen funding rounds, Virginia Catalyst has dedicated a total of \$25.4 million for 53 collaborative projects. Together, these projects have created over 300 new jobs and have attracted an additional \$655 million of investment capital from venture capital, private equity, corporations and government agencies including DARPA, NIH and NSF. We are proud to

continue supporting research investigators and entrepreneurs in achieving value for Virginia and the nation.”

About Virginia Catalyst

Virginia Biosciences Health Research Corporation (VBHRC), known as Virginia Catalyst, has a vision of advancing life sciences throughout Virginia as a means of addressing large unmet medical needs to improve human health and to create high-paying jobs throughout the Commonwealth. Funded by the Virginia General Assembly’s General fund, the University of Virginia, Virginia Commonwealth University, Virginia Tech, Eastern Virginia Medical School, George Mason University, and Old Dominion University, the Virginia Catalyst has funding opportunities to support collaborative life science projects in the Commonwealth. For more information, visit www.viriniacatalyst.org.

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Appendix F: Catalyst Life Sciences Conference Brochure



The brochure features a background image of a city skyline with a river in the foreground. The text is overlaid on this image. The title 'Catalyst Life Sciences Conference' is in a large, white, serif font. Below it, the dates 'October 6 - 7, 2022' are in a white, sans-serif font on an orange banner. The description 'A Major Life Science Conference bringing together researchers, entrepreneurs, capital sources, and Fortune 500 Companies' is in a white, sans-serif font. The tagline 'Focused on Commercializing Virginia's Innovations' is in a white, italicized, sans-serif font. The host information includes 'hosted by: VBHRC CATALYST' and the website 'www.VirginiaCatalyst.org'. The member universities are listed with their logos: EVMS, George Mason University, Old Dominion University, University of Virginia, VCU, and Virginia Tech. The partner 'virginia bio' is listed at the bottom with its logo.

Catalyst Life Sciences Conference

October 6 - 7, 2022

A Major Life Science Conference
bringing together researchers, entrepreneurs,
capital sources, and Fortune 500 Companies

Focused on Commercializing Virginia's Innovations

hosted by:

VBHRC
CATALYST

www.VirginiaCatalyst.org

and its member Virginia universities:

EVMS
Eastern Virginia Medical School

GEORGE MASON UNIVERSITY

OLD DOMINION UNIVERSITY

UNIVERSITY of VIRGINIA

VCU

VirginiaTech
Invent the Future

and with our partner:

virginia bio

VBHRC CATALYST

On behalf of the Virginia Catalyst Board of Directors, our Project Management and Oversight Panel, and the management team, welcome to the *Catalyst Life Sciences Conference*! We are excited to host this conference with a focus on commercializing Virginia's life science innovations. Expert panels are here to share their experiences and guidance in an interactive format so that scientists, researchers, entrepreneurs and investors can come together to create shared visions for commercializing life science innovations that improve human health and create economic growth for the Commonwealth of Virginia.

Mike Grisham, President & CEO, Virginia Catalyst

And we extend a very special "Thank You" to our sponsors!
We appreciate your support of Virginia's Life Sciences:



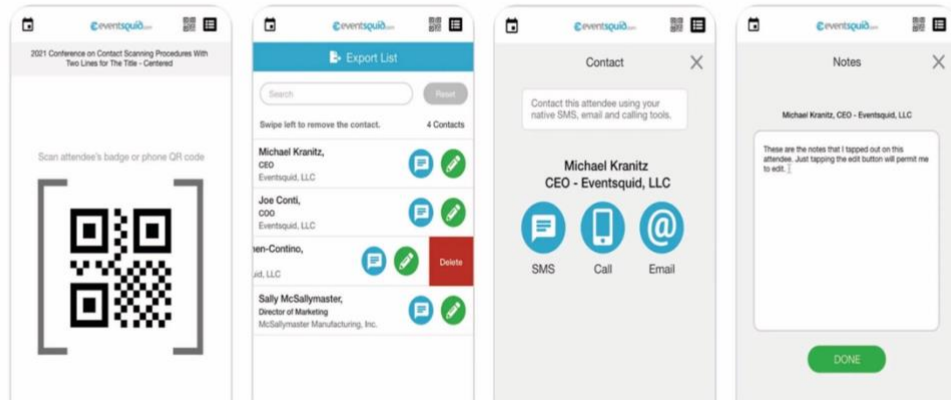
Sharing contact information – the quick and easy way

One of the benefits of attending this conference is the opportunity to meet and network with others in Virginia’s life science community. We encourage networking and the development of collaborations, and are happy to be able to provide a simplified way to share contact information.

To gather contact information, simply scan the badge QR code and instantly collect and store contact information. You’ll be able to call, email, and text directly from the app!



iPhone Screenshots

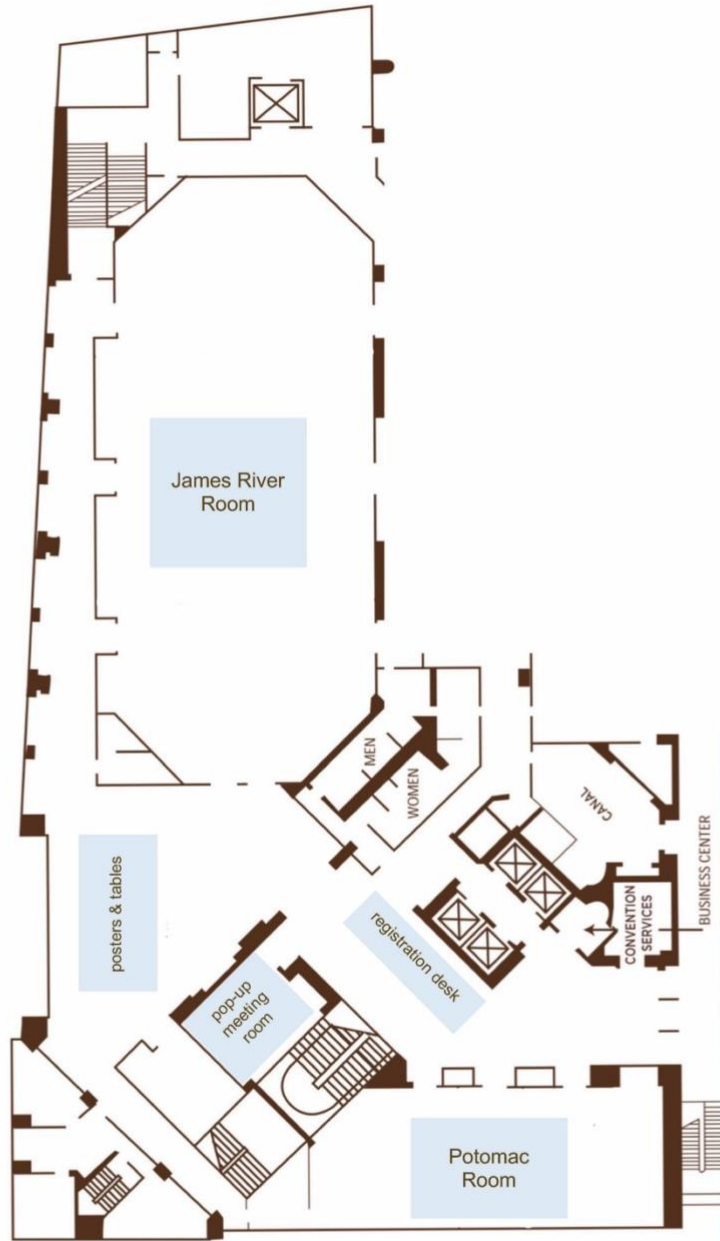


Scan to download the FREE Eventsquid QR Scanning App



eventID: 16060
 Authorization code: Catalyst

Conference Floorplan



*Note: floorplan intended for reference of conference activities only
In case of the need to evacuate - follow hotel signage*

Agenda at a Glance

Wednesday, October 5, 2022		
16:30	Networking Reception	Magnolia Room and Wine Bar
Thursday, October 6, 2022		
6:00	Registration Opens	
7:00	Continental Breakfast	
8:00	Opening remarks in James River Room	
8:30	Keynote speaker: Dr. Joni Rutter	
9:30	<i>Best Practices for Building a High-Potential Company</i>	
11:00	<i>Accessing University Resources for High-Potential Collaboration</i>	
12:00	Networking Lunch Break	
	James River Room	Potomac Room
13:00	<i>Scientists & Engineers as Entrepreneurs: Part I</i>	<i>Building a Winning Management Team</i>
14:00	<i>Scientists & Engineers as Entrepreneurs: Part II</i>	<i>Raising Capital: State & Federal Sources</i>
15:00	<i>Establishing & Building Ecosystems</i>	<i>External Resources for Building a Company</i>
16:00	Networking Break and Poster Sessions	
18:00	Cocktail Hour and Celebration Dinner	
Friday, October 7, 2022		
7:00	Continental Breakfast	
	James River Room	Potomac Room
8:30	<i>Growing Advanced Pharmaceutical Manufacturing & R-D Regional Cluster</i>	<i>University Sponsored Research & Tech Transfer</i>
9:30	<i>Raising Capital: Angel & Venture</i>	<i>Translational Partnerships: How Collaborative Discoveries Become Innovative Products</i>
10:30	Morning Break	
11:00	<i>Partnering with Fortune 500 Companies</i>	<i>Partnering with Private & Community Health Systems</i>
12:00	Closing Remarks in James River Room	

State-of-the-art life science incubator open to entrepreneurs and startups

Johnson & Johnson Innovation is open for business in the nation's capital with the establishment of JLABS @ Washington, DC. The 32,000-square foot site is on the new Children's National Research & Innovation Campus, sitting side-by-side with Children's National Research Institute and academic partner, Virginia Tech.

Our global life science network for innovation provides startups with access to capital-efficient lab space and resources, including expertise, community, industry connections and entrepreneurial programs.

Our portfolio of companies represent...

Success with us:

 \$63.7B


financing & strategic relationships

A diverse global network:

 31% women-led

 30% minority-led

J&J Expertise:

 270 JLABS companies with at least one deal and/or partnership with the Johnson & Johnson Family of Companies

According to JLABS Navigator: <https://jninnovation.com/JLABSNavigator/>



Keynote Speaker



Joni Rutter, Ph.D.

Acting Director, National Center for Advancing Translational Sciences (NCATS)

Dr. Rutter oversees the planning and execution of the Center's complex, multifaceted programs that aim to overcome scientific and operational barriers impeding the development and delivery of new treatments and other health solutions. Under her direction, NCATS supports innovative tools and strategies to make each step in the translational process more effective and efficient, thus speeding research across a range of diseases, with a particular focus on rare diseases. By advancing the science of translation, NCATS helps turn promising research discoveries into real-world applications that improve people's health. In her previous role as the NCATS Deputy Director, Dr. Rutter collaborated with colleagues from government, academia, industry and nonprofit patient organizations to establish robust interactions with NCATS programs.

Prior to joining NCATS, Dr. Rutter served as the director of scientific programs within the All of Us Research Program. During her time at NIH, she led the Division of Neuroscience and Behavior at the National Institute on Drug Abuse (NIDA).

Dr. Rutter received her Ph.D. from the Department of Pharmacology and Toxicology, Dartmouth Medical School, Hanover, New Hampshire, and completed a fellowship at NCI within the Division of Cancer Epidemiology and Genetics.

Conference Sessions

Thursday, October 6, 2022

Best Practices for Building a High-Potential Company

9:30 James River Room

Jim Powers, Former Chairman & CEO, HemoShear Therapeutics, Inc.
 Andrew Krouse, President & CEO, Slate Bio, Inc.
 Payam Pourtaheri, Founder & CEO, AgroSpheres
 Ross Dunlap, CEO & Founder, Ceres Nanosciences, Inc.
 Elaine Horn-Ranney, CEO & Co-Founder, Tympanogen

This expert panel will share advice from personal CEO experiences to entrepreneurs about key success factors in growing life sciences businesses. Attendees will gain an improved understanding of:

- building and getting the most from your Board of Directors
- attracting and retaining high-quality talent
- raising capital, and
- setting these business strategy with an ability to pivoting as needed

Accessing University Resources for High-Potential Collaboration

11:00 James River Room

Gerard Eldering, CEO, Perfusion Medical
 Melur "Ram" Ramasubramanian, Vice President for Research, University of Virginia
 Andre Marshall, Vice President for Research, Innovation and Economic Development, George Mason University
 Michael Friedlander, Executive Director, Fralin Biomedical Research Institute at Virginia Tech Carilion, and
 Vice President for Health Sciences and Technology, Virginia Tech

Attending this session will help you develop an understanding of:

- the research capabilities at Virginia Universities
- the various models of collaboration including sponsored research, licensing, STTRs and other models
- how to access university resources and who the points of contact are

Scientists & Engineers as Entrepreneurs: Part I

13:00 James River Room

George Bloom, Professor of Biology, Cell Biology and Neuroscience, University of Virginia
 Richard Marconi, Professor of Medicine and Dentistry, Virginia Commonwealth University Medical Center
 Rafael Davalos, L. Preston Wade Professor, Virginia Polytechnic Institute and State University
 Richard Heller, Professor, Morsani College of Medicine and College of Engineering, University of South Florida
 Emanuel Petricoin, University Professor, Co-Director for Applied Proteomics and Molecular Medicine,
 George Mason University

This expert panel will provide key insights to help attendees develop an improved understanding of:

- how academic scientists and engineers can initiate the process of translating basic research findings to clinical and other markets
- how to navigate the patent system to protect intellectual property
- how to choose a path to either license the patent or use it as a basis to form startup company(ies)

Building a Winning Management Team

13:00 Potomac Room

Jeff Pompeo, President & CEO, Caretaker Medical Co.
 Stephanie Maistrellis, CEO & Partner, LEAD Life Sciences
 Gerard Eldering, CEO, Perfusion Medical

Attendees of this session will be able to discuss best practices of:

- building winning teams in early-stage startups and university spinouts
- growing winning teams through commercial scale and maturity
- recruiting, retaining and rewarding your winning management team

Scientists & Engineers as Entrepreneurs: Part II

14:00 James River Room

Barbara Boyan, Executive Director, Institute for Engineering and Medicine, VCU
 Rob Gourdie, Director of Center for Vascular & Heart Research, Fralin Biomedical Research Institute
 Professor, Department of Biomedical Engineering and Mechanics, Virginia Tech
 Frank Gupton, CEO of Medicines for All, Department Chair Chemical and Life Sciences Engineering,
 Virginia Commonwealth University
 O. John Semmes, Distinguished Professor, Associate Dean for Translational Research, and
 Director, Leroy T. Canoles, Jr. Cancer Research Center, Eastern Virginia Medical School

This second session of additional experts will provide attendees:

- an understanding of the value of bridging discovery, innovation and entrepreneurship.
- an appreciation of the role of strategic partnerships between academia and industry
- an appreciation of the importance of "team culture", "shared vision" and "good chemistry".

Raising Capital: State & Federal Sources

14:00 Potomac Room

Jeff Conroy, CEO & Founder, Embody, Inc.
 Lauren Bell, President and CEO, LaCire, LLC
 Bob Stolle, President & CEO, The Virginia Innovative Partnership Corporation (VIPIC)
 Andre Marshall, Vice President for Research, Innovation and Economic Development, and
 President, Research Foundation, George Mason University

Panel experts discuss the resources available in the Commonwealth of Virginia related to VVP/VIPC, CRCF and Catalyst. They will share their experiences pursuing non-dilutive federal funding via NIH, DARPA, DOD and AFWERX to help attendees understand the wide variety of opportunities to fund early-stage progress through state and federal dilutive and non-dilutive avenues.

Establishing & Building Ecosystems

15:00 James River Room

John Newby, CEO, Virginia Bio
 Paula Sorrell, Associate Vice President, Innovation & Economic Development, George Mason University
 Chandra Briggman, President & CEO, Activation Capital
 Kevin Leslie, Executive Director, Hampton Roads Biomedical Research Consortium
 Michael Friedlander, Executive Director, Fralin Biomedical Research Institute at Virginia Tech Carilion
 Vice President for Health Sciences and Technology, Virginia Tec

Panel experts spotlight the diverse biotechnology ecosystems of Roanoke/Blacksburg, Greater Richmond, Northern Virginia and Coastal Virginia, and encourage discussion with attendees to explore possible Commonwealth-wide partnership opportunities to strengthen the statewide biotechnology ecosystem.

External Resources for Building a Company

15:00 Potomac Room

Scott Meza, Chair, Northern Virginia Corporate Department, Greenberg Traurig, LLP
 Paul Nolde, Managing Director, Lighthouse Labs
 Philippe Sommer, Life Sciences Mentor, ICAP at George Mason University
 Kevin Seitter, Chief Technology Officer, Cerillo
 David Chen, Program Director, University of Virginia, Coulter Translational Partnership

Building a business in the life science sector requires many different capabilities, ranging from securing funding, developing and commercializing technology to assembling a skilled workforce. Entrepreneurs, often with limited financial resources, must look to external resources for that support. This expert panel will share insights on how to find those external resources including:

- accessing early-stage investment, including seed funding and government grants
- resources available for entrepreneurial training and experience
- sources for technical and marketing support
- developing mentor relationships with seasoned professionals
- managing and protecting intellectual property and legal risks

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Connecting Innovators with Opportunity
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Connecting innovators with opportunities are what we do best.
VIPC leads funding, infrastructure, and policy initiatives to support Virginia's innovators, entrepreneurs, startups, and market development strategies.
 Connect with us and an opportunity to grow and thrive in Virginia.

Poster Session Thursday 16:00 – 18:00

AI-guided Mental Health Clinic

Farrokh Alemi, Professor, George Mason University

Artificial Intelligence (AI) and Machine Learning (ML) Designed Antimicrobial peptides against Gram-negative Bacteria

Monique van Hoek, Professor, George Mason University

CD40L-CD40 as a Therapeutic Target in Temporal Lobe Epilepsy

Alberto Musto, Associate Professor, Eastern Virginia Medical School

Clinical Evaluation of a Novel Unloader Brace for Patellofemoral Arthritis

Evan Eckersley, COO, Icarus Medical Innovations

Exploring Neural Networks in Translational Neuroscience: Opportunities for Drug Discovery in Seizure and Cognitive Disorders

Alberto Musto, Associate Professor, Eastern Virginia Medical School

Timothy Putnam, Medical Student, Eastern Virginia Medical School

First-in-class, Serpin Derived, Immune Balancing Therapeutic as a Revolutionary Approach for Inflammatory Diseases

Cohava Gelber, CEO, Serpin Pharma

Glycan-directed therapy for treatment of platinum-resistant ovarian cancer

Erica Peterson, Senior Research Specialist, Virginia Commonwealth University

Modulation of the sphingosine-1-phosphate system (S1PR) reveals differences in S1PR actions and S1PR type 1 functional localization with the central nervous system

Abby M Pondelick, Hallie Lappin, Laura J Sim-Selley, Dana E Selley

Department of Pharmacology and Toxicology, Virginia Commonwealth University

New Designer Molecular Contrast Agent of Indocyanine Green Dye J-aggregates for photoacoustic imaging

Shrishti Singh, Graduate Research Assistant, George Mason University

Proglumide to augment vaccines and other therapeutics to treat cancer, pancreatitis, and other disorders

Jason McDevitt, Research Professor and Director, Technology Transfer, William & Mary

Scaffolded DNA origami-based antigen delivery platform for rational design of vaccines against life threatening viral pathogens

Esra Oktay, PhD Candidate, George Mason University

Toward long-term reduction of biofilm-based infections associated with silicone medical devices

Kenneth Wynne, President, WynnVision, LLC

Translational In Vivo Model of Glioblastoma Multiforme Induced Seizures for Drug Discovery

Alberto Musto, Associate Professor, Eastern Virginia Medical School

GROWING LIFE SCIENCE ENTREPRENEURS

Our mission is to grow life sciences and other advanced technology innovation by promoting scientific research, commercialization, business formation, and ecosystem development that attracts and creates 21st-century jobs and companies.

We support local and regional efforts to super-charge an inclusive, entrepreneurship community that is defining Central Virginia as the home for innovation.



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Conference Sessions

Friday, October 7, 2022

Growing a Pharmaceutical Manufacturing & Research - Development Regional Cluster

8:30 James River Room

Jeffery Gallagher, Interim Executive Director, Alliance for Building Better Medicine
 Eric Edwards, Co-Founder & CEO, Phlow Corporation
 Allan Coukell, Senior Vice President of Public Policy, CivicaRx
 Frank Gupton, CEO of Medicines for All, Department Chair Chemical and Life Sciences Engineering,
 Virginia Commonwealth University

Panel experts discuss the collaboration and planning, working with multi-jurisdictional public and private sector stakeholders to define a new era in research and development, advanced pharmaceutical manufacturing, workforce development and supply chain management, which lead to the Richmond-Petersburg region becoming a winner of the national Build Back Better Regional Challenge.

University Sponsored Research & Tech Transfer

8:30 Potomac Room

Ivelina Metcheva, Assistant Vice President for Innovation, Virginia Commonwealth University
 Lynn Koplin, Associate Director of Contracts, University of Virginia
 Richard Chylla, Executive Director, University of Virginia Licensing & Ventures Group
 Bob Creeden, Managing Director of the UVA Seed Funds & New Ventures, UVA Licensing & Ventures Group

Attendees of this session will learn from the panelists and develop a better understanding of:

- the roles of the Offices of Sponsored Programs and Tech Transfer at research institutions
- the departmental processes and the most effective ways to work with them
- how Sponsored Programs and Tech Transfer teams can facilitate your research and projects

Raising Capital: Angel and Venture

9:30 James River Room

Kyp Sirinakis, Co-Founder & Managing Partner, Epidarex Capital
 Monique Adams, Executive Director, 757 Angels
 Walter Greenblatt, Managing Director, Walter Greenblatt & Associates, LLC

Panel experts discuss raising capital via angel and venture investors so that attendees have a better understanding of:

- the kinds of investors that fund life science companies at various stages of their life cycle
- how the various kinds of investors' interests/appetites differ from one another and how best to approach/work with each group
- what 'tools' a company needs to be prepared for fundraising and approaching investors
- and best practices and do's and don'ts

Translational Partnerships: How Collaborative Discoveries Become Innovative Products

9:30 Potomac Room

Ali Andalibi, Senior Associate Dean, College of Science;
Chief Scientific Officer, Center for Infectious Disease Research, George Mason University
Karen C. Johnston, Distinguished Professor of Neurology, Department of Neurology, UVA School of Medicine
Associate Vice President for Clinical & Translational Research Office
Director, integrated Translational Health Research Institute of Virginia (iTHRIV)
F. Gerard Moeller, Director, C. Kenneth & Dianne Wright Center for Clinical and Translational Research
Virginia Commonwealth University

This interactive panel will speak directly with:

- Jeff Busch, Chairman and CEO of Global Medical REIT
- Will Mauldin Chairman and CEO of Rivanna Medical
- Jacqueline Britz, MD, Assistant Professor, Department of Family Medicine & Population Health, VCU

and discuss specific examples of the benefits of collaboration with academic partners in the translational research space and how attendees may follow similar paths towards developing innovative products.

Partnering with Fortune 500 Companies

11:00 James River Room

Jeff Conroy, CEO & Founder, Embody, Inc.
Charles Anamelechi, Associate Director for Strategic Innovation, BD (formerly Becton Dickinson)
Sally Allain, Regional Head, JLABS @ Washington, DC, and
Interim Head, JLABS @ New York / Boston / Philly
Johnson & Johnson Innovation

Experts discuss how to build and develop your business with an understanding of the benefits of partnering with large companies including:

- understanding your components of value with strict focus on how strategics view those components
- being committed to the timeline
- building a business with a focus on the value of your solution as an improvement over the clinical standard
- thinking in three phases: relationship phase, credibility phase, and possibility phase

Partnering with Private & Community Hospitals

11:00 Potomac Room

Jordan Asher, Executive Vice President & Chief Physician Executive, Sentara Healthcare
Alfred Abuhamad, President, Provost & Dean, School of Medicine, Eastern Virginia Medical School
Eric Weisel, Executive Director, Virginia Modeling & Simulation Center, Old Dominion University
David Torgerson, Vice President, Enterprise Analytics, Sentara Healthcare

This expert panel will share experiences and guidance to help attendees gain a better understanding of:

- what private and community health systems bring to the table in collaboration in promoting life sciences
- how to interact with a health system in a manner that creates success
- how a health system thinks about benefits and commercialization

Closing Remarks

12:00 James River Room

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about Virginia Catalyst

VBHRC, Virginia Catalyst is a not-for-profit 501(c)(3) corporation created by the Virginia General Assembly and funded by the Commonwealth's General Fund and six Virginia public research universities: Eastern Virginia Medical School, George Mason University, Old Dominion University, University of Virginia, Virginia Commonwealth University, and Virginia Tech.

Our mission is to advance economic development by creating competitive critical mass for Virginia life sciences through collaborations with our research universities and industry, to attract research and commercialization capital to Virginia and to catalyze the commercialization of Virginia's innovations that meet large, unmet medical needs, improve human health and to create many more high-paying life science jobs in Virginia.

Grant Round 14 is Open Now!
Non-Dilutive Grant Funding up to \$800,000

***For more information and
to submit your Letter of Intent:***



VBHRC Catalyst

By The Numbers

Results through Sept 2022*

 **13** Grant Rounds Conducted

 **53** Funded Projects that Improve Human Health

AWARDED VS. ECONOMIC IMPACT

Through Round 13



 **260** High Paying Jobs Created**

COLLABORATIVE STRENGTH

53 Projects involving 40 Industry Partners in collaboration with Virginia Universities



VBHRC Virginia Catalyst is a not-for-profit 501(c)(3) corporation created by the Virginia General Assembly and funded by the Commonwealth's General Fund and six Virginia public research universities: EVMS, GMU, ODU, UVA, VCU, and VT. Our mission is to stimulate and cultivate collaborations and partnerships among Virginia's research universities, major health systems, and industry to produce positive economic impact within the Commonwealth. Michael Grisham, CEO

*one-time COVID-19 Funding Round not included in totals
 **jobs created does not include indirect jobs

Appendix G: Virginia Catalyst NSF Submission Summary

PROJECT SUMMARY

Overview

Title: NSF Engine: Type 2. Virginia Neuroscience Initiative

PI: Michael Grisham

Lead Organization: Virginia Biosciences Health Research Corporation

Purpose and Vision

The Virginia Neuroscience Initiative (VNI) will create a vibrant, collaborative and sustainable innovation ecosystem to commercialize products, promote high-growth companies, increase diversity, create jobs and attract follow-on funding through use-inspired and translational research. It focuses on neuroscience technologies, products and services and technologically inspired enhancements in cognition and human performance, and brain-machine interfaces in the service of human health and productivity.

Regional Importance and Economic Impact

VNI will produce economic gain by accelerating the commercialization of neuroscience innovations that address large unmet needs, attract major capital investments, create high-paying jobs and promote economic growth. VNI will expand workforce development pathways in STEM fields to provide a cohort of persons to fill scientific, manufacturing, administrative, supporting jobs across many educational levels.

Key outcomes

To promote use-inspired R&D, VNI will fund technology incubators/accelerators to support neuroscience program. To translate innovations to practice, VNI will fund collaborations among universities and companies for translational research to develop products and services. To promote regional workforce and economic development, VNI will fund entrepreneurship, mentoring and internships at participating organizations, and fund internships for returning military veterans seeking to train, retrain or up-train. VNI will instill and support a culture of innovation and diversity across the program.

Intellectual Merit

This proposed NSF Engine will bring neuroscience inventions and developments from the laboratory to the market to create a sustainable innovation ecosystem that increases workforce diversity and creates jobs. VNI will: 1) fund programs and services in translational R&D and workforce development; and 2) fund programs and services offered by 5 regional Hubs, each led by a major research university that has existing partnerships with technology incubators/accelerators, 2-year community colleges, HBCUs/MSIs, and venture funding organizations. To promote use-inspired R&D, VNI will expand partnerships among universities and technology companies. To translate innovations to practice, VNI will accelerate translational R&D to advance technologies toward commercialization, invest in neuroscience companies, facilitate out-licensing and technology transfer, and increase capital formation. To address the pressing need to diversify the workforce to meet emerging industry sectors, especially in parts of Virginia that have been largely bypassed by the innovation industry, VNI will promote internships and mentoring to provide a diverse workforce at a variety of educational and professional levels to support the development and commercialization of neuroscience technologies.

Broader Impacts

VNI will have a broad and lasting impact on the Virginia innovation ecosystem and economy by translating neuroscience R&D into tangible products and services and by expanding the workforce to fill a growing need for technology-based jobs at a variety of educational and skill

levels. It will support existing regional assets such as technology incubators/accelerators and will attract capital formation/ venture capital firms to increase their investments in neuroscience by providing regional infrastructure that supports innovation and reduces risk. VNI will provide technologically inspired enhancements in cognition and human performance, and brain-machine interfaces in the service of human health and human productivity on a national and global scale. Ultimately, VNI programs will benefit society by catalyzing the commercialization of innovations that address large unmet medical needs, improve human health, equity and well-being, and creating many more high-paying neuroscience jobs in Virginia.

Key Words

Sustainable neuroscience innovation ecosystem, diverse workforce training, translational R&D, use-inspired research, neuroscience products and services

LOI ID: L23-000143

Concept Outline ID: INQ-22-00536

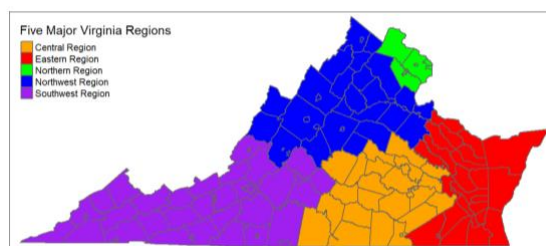


Table 1. Lead institution for each VNI hub. * Regional Hub directors Drs. Ramasubramanian and Friedlander, along with Steering Committee Chair Dr. Cifu, are co-PDs for the VNI Engines grant.

Hub	Lead institution/Location	Director
Northwest	University of Virginia (UVA) Charlottesville, VA	Melur K. Ramasubramanian, PhD, VP for Research *
Southwest	Virginia Polytechnic Institute and State University (VT) Blacksburg, VA	Michael Friedlander, Ph.D., VP for Health Sciences and Technology *
Central	Virginia Commonwealth University (VCU) Richmond, VA	F. Gerard Moeller, MD, AVP for Clinical Research and Director, Wright Center for Clinical and Translational Research
Northern	George Mason University (GMU) Fairfax, VA	Amy Adams, Exec. Dir, GMU Inst. for Biohealth Innovation
Eastern	Old Dominion University (ODU) Norfolk, VA	Kevin Leslie, Ph.D., Assoc. VP for Innovation

Table 2. Partnering community colleges, HBCUs/MSIs and clinical centers that support translational studies in each VNI hub.

Hub	Participating community colleges	Participating HBCUs/MSIs	Clinical centers
Northwest	Virginia Univ. at Lynchburg	Virginia Univ. at Lynchburg	UVA Health System
Southwest	Virginia Western Community College	Virginia State Univ (VSU)	Carilion Clinic
Central	Mountain Empire Community College	Virginia State Univ (VSU) Virginia Union University Norfolk State University	VCU Health System; Veterans Administration Medical Centers in VA
Northern	Northern VA Community College	Northern VA Community College	Inova Health
Eastern	Virginia Peninsula Community College - Historic Triangle and Hampton campuses Tidewater Community College – Portsmouth, Beach and Chesapeake campuses	Hampton Univ. Norfolk State Univ	EVMS; Sentara Healthcare