



**BOARD OF VISITORS
ACADEMIC AND HEALTH AFFAIRS COMMITTEE
9:20 A.M.
May 10, 2019
JAMES BRANCH CABELL LIBRARY
901 PARK AVENUE, ROOM 303, RICHMOND, VIRGINIA**

COMMITTEE MEMBERS PRESENT

Dr. Carol S. Shapiro, Chair
Dr. Robert D. Holsworth, vice chair
Mr. H. Benson Dendy III
Dr. Shantaram Talegaonkar
Mr. Stuart Siegel

COMMITTEE MEMBERS NOT PRESENT

Dr. Gopinath Jadhav
Mr. Ed McCoy
Mr. Tyrone Nelson
Mr. G. Richard Wagoner, Jr.

OTHERS PRESENT

Dr. Michael Rao, President
Dr. Gail Hackett, Provost and Senior Vice President for Academic Affairs
Dr. Marsha Rappley, Senior Vice President for Health Sciences
Dr. Aashir Nasim, Vice President for Inclusive Excellence
Dr. Srirama Rao, Vice President for Research and Innovation
Ms. Holly Price Alford, Faculty Representative
Dr. W. Scott Street IV, Faculty Representative
Mr. Nicholas B. Fetzer, Staff Representative
Mr. Jacob Parcell, Student Representative
Mr. Dhruv Sethi, Student Representative
Ms. Elizabeth L. Brooks, Associate University Counsel
Ms. Jamie Stillman, Director of Strategic Communications, Office of the Provost
Justin Mattingly, Richmond Times-Dispatch
Staff and students from VCU and VCUHS

CALL TO ORDER

Dr. Carol Shapiro, Chair of Academic and Health Affairs Committee, called the meeting to order at 9:25 a.m.

APPROVAL OF MINUTES

On motion made and seconded, the Academic and Health Affairs Committee approved the Minutes of the meeting held **March 22, 2019**. A copy of the minutes can be found on the VCU website at the following webpage <http://www.president.vcu.edu/board/committeeminutes.html>.

ACTION ITEMS:

On motion made and seconded, the Academic and Health Affairs Committee approved a motion

to recommend to the Board of Visitor approval of the following academic proposals: 1). Department of Oral Health and Community Outreach to Department of Dental Public Health and Policy (rename); and 2) Bachelor of Science in Health Services (create a new).

REPORTS

Dr. Gail Hackett provided updates on several reports that the committee had requested regarding approved academic programs and metrics for career planning strategies and online enrollment. She added that a new executive director for Global Education will soon be named and that a search for a new dean of the College of Humanities and Sciences will be launched.

Dr. Marsha Rappley provided an update on the Health Equity Initiative, which involves working with community partners to screen and refer people with complex medical issues to VCU Health System medical units. This is an important opportunity for our students to have a real-world experience in their fields. In addition, The VCU Health Hub @25th has opened and a new dean has been appointed in the College of Health Professions – Susan Parrish will begin on July 1.

Dr. Srirama Rao provided a clear overview of the current landscape of the research and innovation enterprise at VCU. He also provided a preview of some aspirational goals that he and the president are considering. These goals center around five key themes – Human Health, Social Justice and Equity, Human Life, Sustainable Ecosystem and Societal Transformation. A copy of his presentation is attached hereto as ***Attachment A*** and is made a part hereof. It was noted that a VCU Research presentation by Dr. Srirama Rao is being planned for the full board this fall.

The student representatives, Jacob Parcell and Dhruv Sethi, provided their last report to the committee and introduced their successors for next year, Samantha Lee and Michael Berger.

Holly Alford finished her four years of service as the faculty representative to the board as well. She reported that the Faculty Senate is sponsoring a symposium for faculty this fall that will help faculty effectively handling, integrating diversity and inclusion in all curriculums and classrooms, as well as faculty mentoring as a strategy for faculty success across the career continuum. Scott Street will be the faculty representative next year and Nancy Jallo will be the alternate.

Nick Fetzer reported that the Staff Senate is in the process of transitioning into an elected body. In addition, the Staff Senate is planning its fourth annual employee appreciation Week next spring. Next year's staff representatives to the board will be named this summer.

OTHER INFORMATION

The committee requested future reports on the steps needed to ensure that the Massey Cancer Center achieves NCI Comprehensive status and on the current and future relationship of VCU and the BioTech Center.

ADJOURNMENT

There being no further business, Dr. Carol Shapiro, Chair, adjourned the meeting at 11:00.

Board of Visitors

Academic and Health Affairs Committee

May 10, 2019

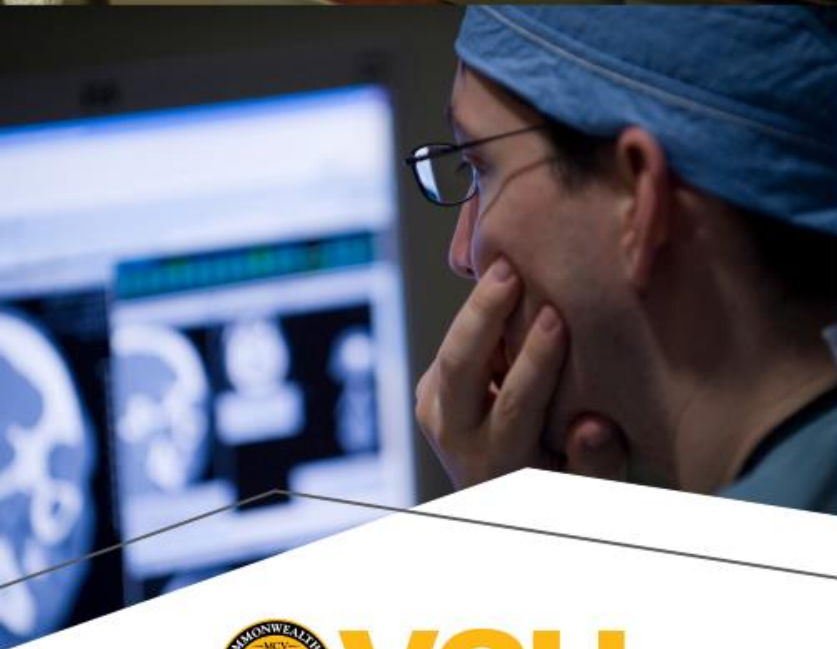
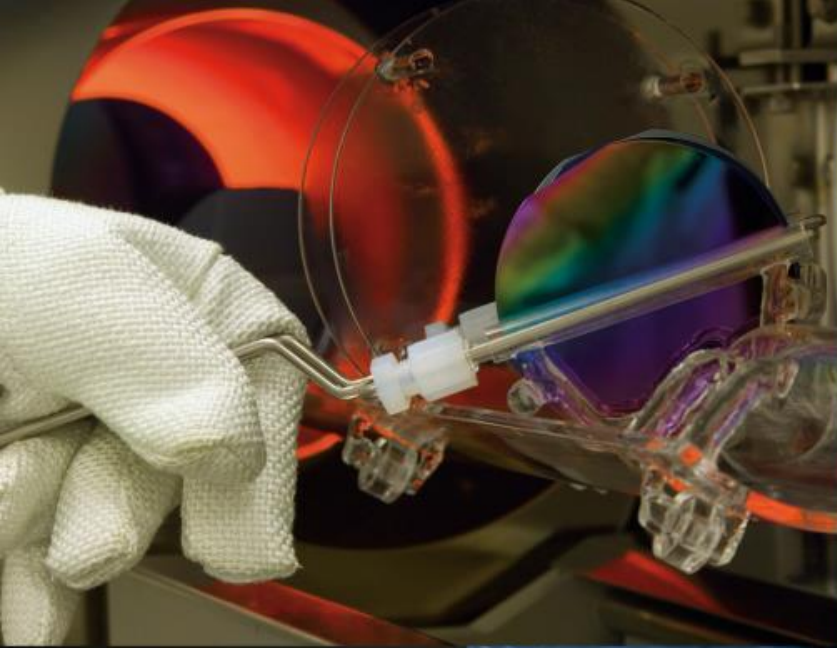
Research and innovation update

Srirama Rao, Ph.D., vice president for research and innovation



VCU

Office of Research
and Innovation



**Perspectives of the new
vice president for research
and innovation ...**

... seeking input and feedback



VCU



Premier urban, public research university
and academic health center committed to:

- Inclusion, access and excellence
- Innovative and transformative learning
- **Impactful research***
- Exceptional patient care
- Beneficial community impact

***QUEST 2025 Goal: National prominence**

VCU Research At-a-Glance



Promote **human health** through transformational biomedical and innovative clinical research



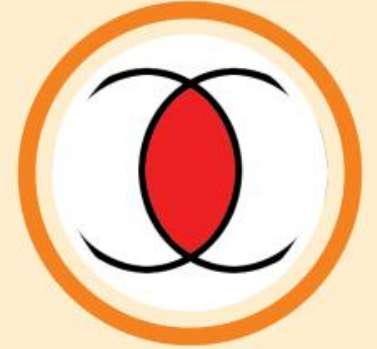
Enhance **social justice and equity** through creative arts, business, humanities, policy and community-engaged research



Advance **quality of life and well-being** through pharmaceutical engineering, sustainable energy, material and data science



Create a **sustainable ecosystem** through cutting-edge environmental research



Achieve **societal transformation** through transdisciplinary research

Nexus of arts, humanities, engineering and medicine



VCU

The image is a vertical composite of two photographs. The top photograph shows a woman with voluminous curly hair, wearing a black top and white earbuds, looking down at a tablet device. The bottom photograph shows a woman with short blonde hair and glasses, wearing a dark blazer, speaking at a podium with her hands raised. Behind her is a large blue screen displaying a table of financial data.

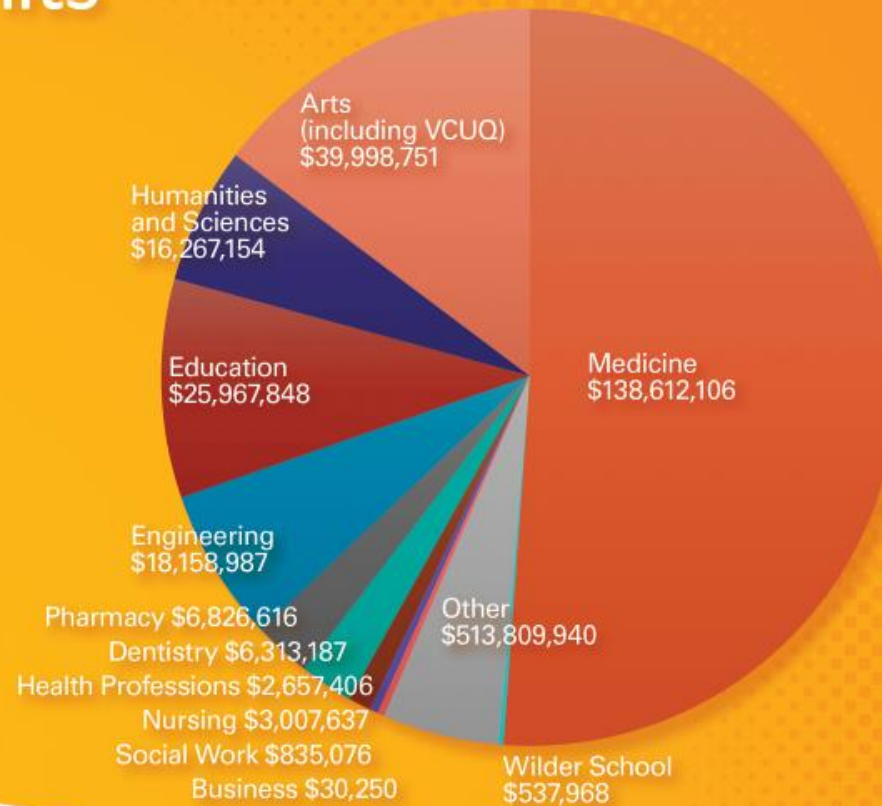
tions	0.31	0.32	0.29	0.28	0.78	0.78	0.48	0.44	0.10	-0.09	-0.09
r	0.06	0.06	0.05	0.05	0.06	0.06	0.09	0.09	0.03	0.03	0.04
o in Income	15.5		7.57		32.2		32.4		25.5		
r	7.0		15.7		9.80		12.3				
	7.02	8.18		32	25.3	25.7	7.80	9.80			16.2



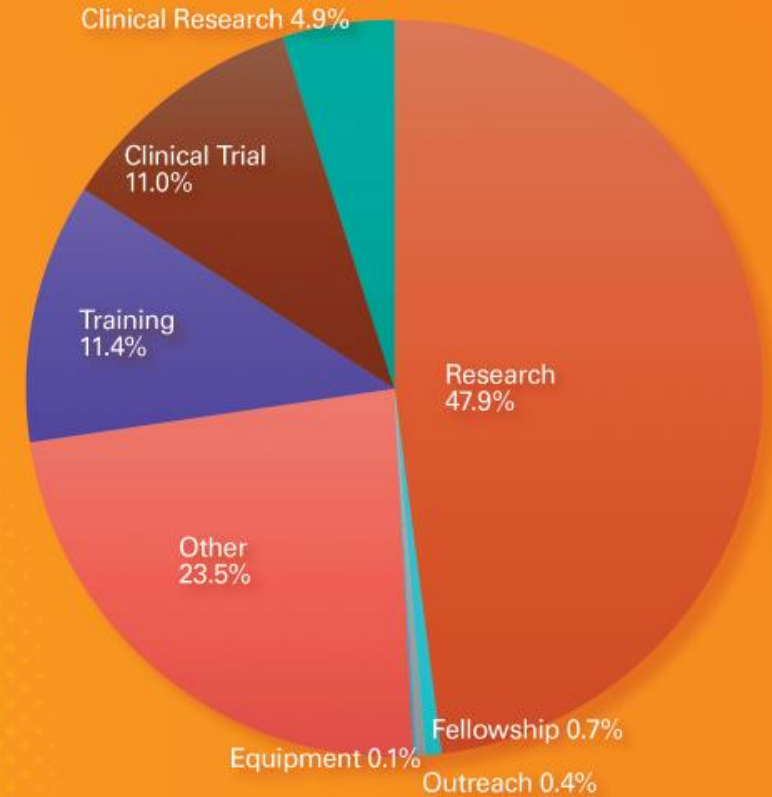
FY2018 VCU Sponsored Program Awards by source and units

FY 2018:
\$271,022,724

Funding by Unit



Funding by Purpose



VCU



National rankings (selected)

- NSF Ranking, total R&D expenditures - **67***
- NSF Ranking Federal R&D expenditures, 2017 - **54 ***
- Blue Ridge Ranking (NIH Funding), Schools of:
Pharmacy -**24**, Dentistry -**26** and Medicine - **60****
- Neuroscience NIH awards received -**33**, and
addiction -**15**

*NSF ranking out of 400 public universities

**Blue Ridge Ranking, 2018:

Pharmacy, out of 92;

Dentistry, out of 50;

Medicine, out of 147



VCU



Of universities nationwide, VCU is:

- One of only **43** with NCI-designated cancer center and the Clinical and Translational Science Award
- One of only **54** designated as “Community Engaged” with “Very High Research Activity” (Carnegie Foundation)
- Top **50** ranked in multiple graduate programs



VCU

Technology and Commercialization: licensing, patents, royalties, and startups

FY 2018:

134 Invention disclosures

155 Patents filed

30 Patents issued

\$2.7M In licensing revenue

In the past 10 years:

\$22M Licensing/royalty
revenue

2 Selected as best
university start-ups

\$64M In equity funding

27 Products to market

Start-ups:

30 Start-ups in 10 years

4 Start-ups in 2016-17

4 Start-ups in 2017-18

12 Start-ups in 2018-19

Innovation Gateway: Conduit for proof-of-concept, product development and out licensing

VCU Ventures: New focus on start-ups
in collaboration with HIC



VCU

Advance groundbreaking and
transformative research to be
“locally relevant, nationally prominent
and globally recognized.”



VCU

Quest 2025 VCU Research and National Prominence: Current and Future Priorities

- Neuroscience (pain and addiction)
- Cancer/cardiovascular and GI
- Drug discovery, development and delivery
- Microbiome, OMICS and data analytics
- New therapies and vaccines
- Children's and women's health

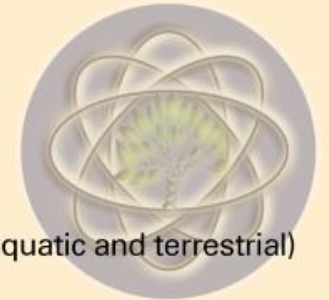


Understanding the
basis of life disease
and promoting well-
being of people

Enriching the
ecosystem via
environment and
data science

**Nexus of arts,
humanities,
engineering
and medicine**

- Clean air and water
- Conservation biology
- Nanoscience
- Ecology and evolution
- Renewable energy
- Environmental habitat (aquatic and terrestrial)
- Data science



- Pharmaceutical, material, nanomedicine and biomedical engineering
- Cyber-science research
- Artificial intelligence and supercomputing
- Big data and informatics
- Nuclear engineering and physics
- Renewable energy



Enhancing human
life through
innovation in
engineering, arts
and social sciences

Addressing social
disparities, justice
and equity through
humanities and
the arts

- Equity, social justice and disparity
- Sustainability
- Policy and education
- Community engagement
- Early childhood and nutrition
- Virtual reality, arts, communication and design



VCU

Priority: Strategic implementation plan across VCU

Monroe Park Campus Research Initiative

- Community-engaged research, social, environmental and societal well-being
- Art and medicine, virtual reality and AI
- Pharmaceutical and biomedical engineering, renewable energy and cyber initiative

MCV Academic Health Sciences Research

- Massey cancer center – achieving comprehensive status
- Transdisciplinary, neuroscience initiative and building
- Basic and applied research that integrates the academic health center units
- Drug discovery, vaccines, diagnostics and therapeutic

One VCU

- Integrate VCU and VCU Health System to increase and advance clinical research and trials

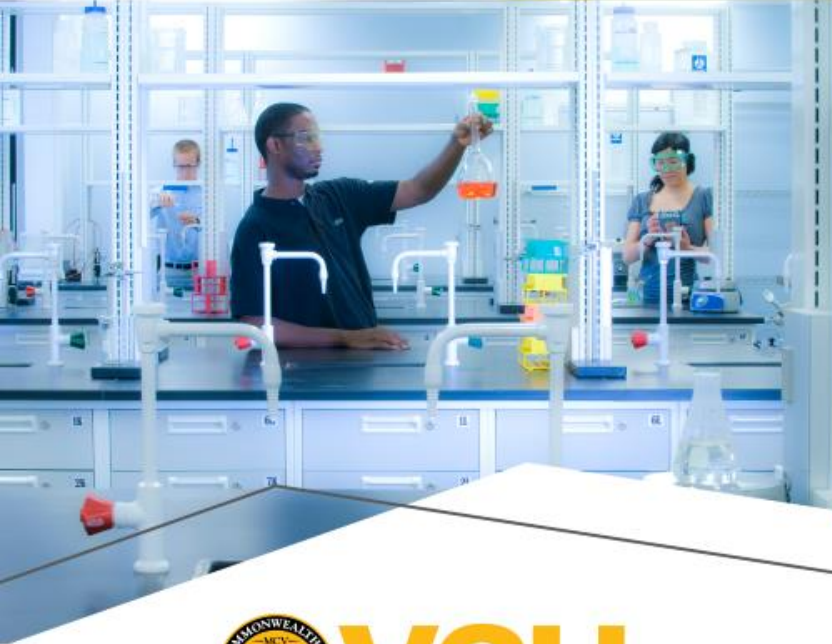
Health Innovation Consortium

- \$7 million funding opportunity (VCU-HS)



Prioritize resources and infrastructure that support:

- **Culture shift:** Focus on interdisciplinary collaboration and cross-functional teamwork
- **Financial resources:** Secure sufficient investments to fund strategic goals/aspirations (institutes, centers and cores)
- **Faculty and student development:** Retain and recruit faculty and trainees who will pursue ground breaking and transformational research through team science
- **Large, multi-disciplinary, multiple PI grants:**
Increase submission of large grants and invest in programmatic staff to assist colleges/schools



- **Innovation:** Accelerate VCU discoveries to the market place
- **Integration:** Brand ONE VCU and promote clinical partnership across all schools and colleges
- **National prominence and outreach:** Communicate research outcomes and impact to stakeholders, RVA, the Commonwealth and beyond...

VCU research – national prominence aspirational goals

Top 10

*urban-serving
public research
university
(federal funding)

Top 50

**public research
university
(federal funding)

\$300M

Total R&D
funding

5-10%

annual increase
in FACR
(overhead funds)

10-20% increase

in licensing and
royalty revenue

Top 50

Increase in
ranked research
programs

5-10%

annual increase
of student
engagement in
R&D

* APLU public urban research univs (from total 40); ** NSF Herd ranking (from total of 400)

....VCU strategic research priorities/goals
and implementation plan (2019 -)



Questions, comments and feedback



VCU

VCU-technology based products in market (selected)



Start-ups and licensing partners (selected)



Vesys, LLC



VCU