VCU Research and Strategic Priorities

Faculty Senate Meeting, Sept 3, 2019

Srirama Rao, Vice President for Research and Innovation
Perspectives of research across the MCV and MP campuses…

…seeking input and feedback in developing VCU’s Strategic Research Priorities
VCU is a 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

“National Prominence in Research”

QUEST 2025 – Together We Transform
Development of VCU’s strategic priorities to attain national prominence in research by 2025

- What are the current or aspirational areas of excellence research?
- What should our goals be to advance VCU’s overall research enterprise?
- What are the resources, infrastructure and investments needs to accomplish significant programmatic improvements in the research enterprise?
- What will it take to substantially increase VCU’s research funding and expenditures?
- What is required to assist schools and colleges (faculty and trainees) in realizing their strategic goals and full research potential?
VCU’s ‘Excellence in Research’ At-a-glance

Promote **human health** through cutting-edge basic, biomedical and clinical research

Enhance **equity, well being & social justice** through “community engaged” creative arts, education, humanities, policy, business, and population research

Advance **quality of life** through innovative research and advances in biologic, physical and engineering sciences

Develop a **sustainable ecosystem** through transformational research in environmental sciences

Achieve **societal transformation** through transdisciplinary research in arts, education, engineering, humanities, social and medical sciences

“committed to improving health, well-being, social justice, equity, economic development and our environment”
VCU’s Research Metrics and Highlights
FY2018 - VCU Sponsored Program Awards

Funding by Unit

FY 2018 Total: $271,022,724

- Medicine: $138,612,106
- Arts (includes VCUQ): $39,998,751
- Humanities & Sciences: $16,287,154
- Education: $25,967,646
- Engineering: $18,156,987
- Nursing: $1,007,637
- Social Work: $835,076
- Pharmacy: $6,826,616
- Dentistry: $6,313,187
- Health Professions: $2,657,406
- Other: $13,809,940
- Wilder School: $537,968
- Business: $30,250
- State: $28,890,563
- Industry: $29,723,396
- NIH: $78,931,098
- NSF: $6,167,397
- Fed, Non-NIH: $61,970,087

FY 2018: $271,022,724
FY 2019 data is pending
Aspirational Goal > $300M
VCU Sponsored Program Awards FY 2008-2018

FY 2018 Total Awards: $271,022,724

FY 2019 data will be finalized by end of September 2019

Aspirational goal - >$300M
VCU Sponsored Program Awards: Investigator-initiated Awards by Campus (FY 2008-2018)

FY 2018 Total: $271,022,724
Doctoral Student Enrollment & Post Doctoral Trainees vs. Investigator Initiated Awards

(a) Doctoral Student Enrollment

(b) Post Doctoral Trainees
FY 2018
134 invention disclosures
155 patents filed
30 patents issued
$2.7M in licensing revenue

29 new products to market
> $24M disclosure revenue
165 licenses/options
162 patents issued

$64M in equity funding

VCU Technology and Commercialization (~10 year impact)

1,200 invention disclosures
40 start ups (24 still in operation)
FY 2018
134 invention disclosures
155 patents filed
30 patents issued
$2.7M in licensing revenue

29 new products to market
> $24M disclosure revenue
165 licenses/options
162 patents issued

$64M in equity funding

(2 selected as best university start-up)
VCU Research Expenditures
(used for NSF HERD survey)

NOTE - Re-coding Indices to Capture Research Expenditures:
- start-ups
- graduate research
- faculty effort
- other state support
- animal resources
- other non-sponsored
- and institutional funds used for research

FY2019 data is pending
NSF HERD and Blue Ridge National Research Rankings (2018)

NSF HERD – Public Universities
• Total R&D expenditures (#67/400) (all Univs - 97)
• Federal R&D expenditures (#54/400) (all univs - 85)

► Goal: break into top 50 of Public Univs!

Blue Ridge (NIH awards received)
• Schools of Pharmacy (#24/92)
• School of Dentistry (#26/50)
• School of Medicine (#60/147)
• Neuroscience (#33)
• Addiction (#15)
Top 50 Graduate and professional programs (health) rankings

Graduate and first-professional programs:

1st Sculpture
1st Nurse Anesthesia
2nd Fine Arts
3rd Education — Online
3rd Glass
4th Rehabilitation Counseling
5th Health Care Management
7th Graphic Design
7th Painting/Drawing
9th Ceramics
10th Printmaking
17th Occupational Therapy
17th Pharmacy
20th Best Education Schools (#26)
20th Nuclear Engineering
20th Physical Therapy
25th Social Work (#30)
39th Public Affairs (#44)
44th Doctor of Nursing Practice
48th Engineering — Online

Of universities nation-wide, VCU is:

• One of only 43 with an 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)
Continued need for focusing on strategic research priorities that will result in:

• Groundbreaking research & societal transformation
• Increased extramural funding and impact
• Continued improvement in our rankings and prominence
Aspirational goals for national prominence

Top 20
urban research university, federal funding

Top 50
public research university, federal funding
(NSF HERD)

$300M
R&D Sponsored Awards funding
(5% annual increase)

5-10% annual increase in FACR funding

10-20% increase in licensing and royalty revenue

Top 50
ranked research programs
(Blue Ridge and others)

5-10% annual increase
student and faculty engagement in research and tech development
Charge to the VCU-wide steering committee:

- Mission and vision that is aligned with VCU’s overall research and *Quest 2025 Strg Plan*
- Goals that are aligned with strengths of colleges and schools
- Based of institutional research strengths, identify key signature/thematic programs and targeted areas of focus within each program
- Develop an implementation plan with short- and long-term strategic research priorities
- Achievable goals and plans for tracking progress
- Prepare a report outlining the committee’s recommendations by end of Oct/Early Nov 2019
Strategic Research Priorities Plan (SRPP) Steering Committee:

- **Co-Chairs:**
  - Kathleen Rudasill, PhD, Assoc Dean for Res and Faculty Development, School of Education (Chair, ReDAC)
  - Michael Donnenberg, MD, Senior Associate Dean for Research and Research Training, School of Medicine (Vice Chair, ReDAC)
- Beth Angell, PhD, Dean, School of Social Work
- Douglas Davis, Director of Research, School of Business
- Greg Garman, PhD, Director, VCU Rice Rivers Center
- Jill Gordon, PhD, Douglas Wilder School of Government and Public Affairs
- Ram Gupta, PhD, Associate Dean for Faculty Research Development, College of Engineering
- Nancy Jallo, PhD, Associate Professor, Department of Family and Community Health Nursing, School of Nursing and President, Faculty Senate
- Joshua Langberg, PhD, Associate Dean for Research, College of Humanities and Sciences
- Aron Lichtman, PhD, Associate Dean for Research and Graduate Education, School of Pharmacy

- **F. Gerard Moeller,** MD, PhD, Associate Vice President for Clinical Research, Director, WCCTR
- **Aashir Nasim,** PhD, Vice President for Inclusive Excellence
- **Susan Parish,** PhD, Dean, College of Health Professions
- **David Sarrett,** DMD, MS, Dean, School of Dentistry
- **Saïd Sebti,** PhD, Associate Director for Basic Research, Massey Cancer Center
- **Robert Tombes,** PhD, Vice Provost for Life Sciences and Research
- **Matthew Woolman,** Interim Associate Dean for Innovation, Research, and Graduate Studies, School of the Arts

- **OVRI – Representatives:**
  - Tina Cunningham, Associate Vice President for Sponsored Programs, OVPI
  - Paul Fawcett, PhD, Director of Research Resources, OVPI
  - Ivelina Metcheva, PhD, MBA, Senior Executive Director of Innovation Gateway, OVPI
  - John Ryan, PhD, Associate Vice President for Research Development, OVPI

**Co-Facilitators:**
- **Lydia Klinger,** Project Manager for Research Compliance, OVPI
- **Jan Nelson,** Director of Learning/Organizational Development and Culture, HR
Questions and comments