

#### **VICE PRESIDENT'S UPDATE**



Dear colleagues,

Earlier this summer, I was honored to announce the winners of the <a href="Presidential">Presidential</a>
<a href="Research Quest Fund">Research Quest Fund</a>. Since their inception, these projects have seen a significant return on investment, including through extramural awards and/or community impact. This year, the judges sought to select finalists whose projects clearly align with not only Quest 2025, but also with the <a href="One VCU Strategic Research Priorities Plan">One VCU Strategic Research Priorities Plan</a>, or SRPP. You will hear more about the SRPP in the coming months; <a href="an advisory council">an advisory council</a> is working this summer to guide the implementation of, and investments in, the plan's priorities. In October, we'll offer an opportunity for the VCU community to learn more about the SRPP (discussed in this <a href="Q&A">Q&A</a>). More information about that will be issued soon. I hope you'll participate.

This month, Ram Gupta, Ph.D., the College of Engineering's associate dean for faculty research development became chair of the Research Development Advisory Council, whose members make policy recommendations to the VPRI. Aron Lichtman, Ph.D., associate dean for research and graduate studies at the School of Pharmacy, takes over as vice chair. We look forward to their leadership during FY22 and thank Michael Donnenberg, M.D. (SOM), and Jill Gordon, Ph.D. (Wilder School), for their time and thoughtful service in FY21 as chair and vice chair, respectively.

Finally, I'm very pleased to welcome <u>Fotis Sotiropoulos</u>, <u>Ph.D.</u>, as our new provost and senior vice president for academic affairs. His research focuses on simulation-based engineering science for fluid mechanics problems in renewable energy, environmental, biological and cardiovascular applications. A fellow of the American Physical Society and the American Society of Mechanical Engineers, Dr. Sotiropoulos is also a recipient of a Career Award from the National Science Foundation. I look forward to working him in our collective pursuit of advancing academic excellence including research at VCU.

With best regards,

P. Srirama Rao, Ph.D.

Vice President for Research and Innovation

### **Updates from the Human Research Protection Program**

The HRPP instituted recent changes to encourage quality VCU research:

- Monthly "IRB Mythbusters" blog to provide accurate information
- Revisions to the <u>definition of Protected Health Information</u> to better match HIPAA regulations, clarifying the definition of PHI for investigators
- New training for department-level reviewers to improve the quality of original submissions to the IRB
- Refocus of the Post-Approval Monitoring Quality Improvement Program (PAMQuIP) as an education program
- Online scheduling of one-on-one consultations

The Association for the Accreditation of Human Research Protection Programsrenewed VCU's accreditation, keeping the university competitive among sponsors and funding agencies. Additionally, the USDA's recent unannounced inspection of VCU animal facilities found all was well, and the USDA inspectors were highly complementary to the overall program at VCU.

### Changes for VCU's commercialization programs

The OVPRI is bringing VCU Ventures under the direction of VCU Innovation Gateway. This means Innovation Gateway will not only be responsible for uncovering translational research and protecting and licensing university-created intellectual property, but also for supporting new ventures and partnering with economic development teams and companies throughout the region. This as-yet unnamed entity will remain under the direction of Innovation Gateway's senior executive director, Ivelina Metcheva, Ph.D., and the OVPRI. Significantly, the new entity will aim to be more intentional about supporting start-ups, including those founded by underrepresented minority entrepreneurs.

# New designation of VCU-wide research institutes and centers is aligned with SRPP initiatives

Following review by a committee led by **Robert Winn, M.D.**, director of Massey Cancer Center, and **John Ryan, Ph.D.**, the OVPRI's associate vice president for research development, nine institutes and centers earned the designation as a university-wide "VCU Research Institute and Center," or VCU-RIC. These facilities were recognized for not only advancing VCU's overall research funding and enterprise, but for fostering increased collaborative research among various schools and colleges and across our two campuses and overall impact.

The review aligns university-level VCU <u>research institutes and centers</u> with the key initiatives of the <u>One VCU Strategic Research Priorities Plan</u>: (1) enriching the human experience, (2) optimizing health, (3) achieving a just and equitable society, and (4) supporting sustainable energy and environments.

"We are excited to support the newly designed VCU-RICs," said Ryan. "The newly designated VCU-RICs conduct research in diverse areas including youth development, disability services, health disparities, addiction, drug development, and improving physical and mental rehabilitation, etc.," areas representing VCU research strengths across multiple disciplines and both campuses.

The newly designated research institutes and centers are:

- Center on Health Disparities (VCU CoHD)
- Center for Rehabilitation Science and Engineering (VCU-CERSE)
- · Center on Society and Health
- Clark-Hill Institute for Positive Youth Development
- Institute for Drug and Alcohol Studies
- Institute for Research on Emotional and Behavioral Health, formerly known as COBE
- Institute for Structural Biology, Drug Discovery and Development
- Institute for Women's Health
- Partnership for People with Disabilities

### VCU research making an impact



(Start at upper left and move clockwise)

- Who hears the voice of God
- · Safo closes in on sickle cell treatment
- Black and Latinx surgeons continue to hit glass ceiling in America
- · How NYC survived a deadly outbreak in the 1790s
- Analysis of school lunches suggests federal nutrition standards should be maintained, or strengthened
- Parental expectations for children with intellectual disability or autism in Ghana and Zambia
- The surprising factor in immigrant success
- VCU's Center for Environmental Studies emerges as a national leader in freshwater education

# RVA Eviction Lab tracking COVID-related eviction impact

As Washington wrestles with the issues of pandemic related evictions, RVA Eviction Lab co-directors Kathryn L Howell, Ph.D., and Benjamin F. Teresa, Ph.D., and Wilder School fellow Chesley De Leon released "The Public Cost of Eviction in Richmond and Virginia: Response versus Prevention." The

report estimates the public cost of eviction in Virginia is in the hundreds of millions of dollars, resources which could be redirected to prevention. Is returning to "normal" too costly, they ask. Wilder fellow Maria Dougherty's "COVID-19 and Housing Instability: Emergency Responses and Longer-term Challenges" investigates the ways the pandemic affected renters who received assistance.



### **VCU** grant news

This summer, VCU faculty received numerous grants to support their research. Here are a few highlights:



A <u>grant from the National Institute of Nursing Research</u> will provide nearly \$2.4 million to study the impact of mindfulness activities and social connectedness on Richmond area women who are experiencing depression while pregnant. **Patricia Kinser, Ph.D.** (Nursing) and sociology chair **Susan Bodnar-Deren, Ph.D.**, codirectors of perinatal mental health research at the VCU Institute for Women's Health, have teamed up for the effort.

**Daniel E. Conway, Ph.D.** (Biomedical Engineering), won a <u>\$2.1 million renewal of his five-year grant from the National Institutes of Health</u> to further our understanding of how diseases develop.

A five-year, \$2.3 million grant from the National Cancer Institute will support work by Massey Cancer Center researchers Paul B. Fisher, Ph.D., and Xiang-Yang Wang, Ph.D., to understand the genetic processes that contribute to prostate cancer growth and to develop novel therapeutic strategies to effectively treat late-stage disease.

**Bryce D. McLeod, Ph.D.** (Psychology), received a \$2 million grant from U.S. Department of Education to <u>co-lead a project to support programs</u> for elementary school students at risk of social, behavioral and emotional problems.

**lain Morgan, Ph.D.** (Dentistry), received a <u>\$2.8 million</u>, <u>five-year award</u> from the National Institute of Dental and Craniofacial Research to better understand HPV replication and discover new targets and therapeutics that could help prevent or treat HPV-related cancers.

**Nicholas Thomson, Ph.D.** (Surgery, Psychology), received a \$2.5 million grant from the National Institute of Mental Health <u>to study youth conduct disorder and callous-unemotional traits using VR technology</u>.

## **Honors for VCU faculty**

Six VCU researchers won \$100,000 <u>Jeffress Trust Awards Program in Interdisciplinary Research</u> to support pilot studies encouraging new innovative strategies that integrate computational and quantitative methods across scientific disciplines. Congratulate (L to R) Alaattin Kaya, Ph.D. (Biology) and Tomasz Arodz, Ph.D. (Engineering); Caitlin Martin, M.D. (Obstetrics and Gynecology); Allison Moore, Ph.D. (Mathematics and Applied Mathematics); and Julie Zinnert, Ph.D. (Biology) and David Chan, Ph.D. (Mathematics and Applied Mathematics).





A VCU computer science research team led by **Lukasz Kurgan**, **Ph.D.**, (left) won an international challenge for its novel method of predicting intrinsically disordered proteins, which are associated with cancers, cardiovascular and neurodegenerative diseases. The team published their award-winning work in Critical Assessment of Protein Intrinsic Disorder Prediction (CAID) in **Nature Communications**.

Catherine Hulshof, Ph.D. (Biology), received a \$1 million National Science Foundation Faculty Early CAREER award for her work on <u>"Predicting Plant</u> Functional Trait Variation Across Spatial, Temporal and Biological Scales."

The OVPRI's Division of Research
Development facilitated the peer
review process to select two

**Dipankar Bandyopadhyay, Ph.D.** (Biostatistics), director of Massey's Biostatistics Shared

candidates from a robust field of five VCU scholars to compete for the Ralph E. Powe Junior Faculty Enhancement Awards. We're pleased to announced that the Oak Ridge Associated Universities selected both VCU candidates, Radhika Barua, Ph.D. (Mechanical and Nuclear Engineering) (left), and Yana Cen, Ph.D. (Medicinal Chemistry), for \$5,000 in seed money.





Resource, won the
2021 <u>Outstanding Statistical</u>
<u>Applications Award</u> from
the American Statistical Association
for research that could help assess
how often patients with periodontal
disease should see their dentist.



# Collins' virtual visit promotes COVID-19 vaccination



Francis Collins, M.D., Ph.D.

In July, Massey Cancer Center Director **Robert** Winn, M.D., was joined by Francis Collins, M.D., Ph.D., director of the **National Institutes** of Health, for a wideranging virtual discussion on COVID-19 vaccination, the future of cancer research and treatment, and efforts to increase diversity in the biomedical

research field.

## New research graduate programs start this fall

Two new research graduate programs welcome their first students this fall. The School of Dentistry's <u>master's degree in microbiology and immunology</u>, with a concentration in oral biology, emphasizes independent research by trainees. The College of Engineering's <u>first doctoral students in computer science</u> will pursue opportunities to conduct advanced research in cybersecurity, data science, bioinformatics, machine learning and software engineering, as well as in distributed, high-performance and mobile computing.

"We are thrilled that students can now pursue these programs at VCU," said **Daniel C. Bullard**, **Ph.D.**, dean of the VCU Graduate School. "By leveraging our institution's resources as a premier public research university, we're able to offer exceptional academic experiences and research training for those interested in these vital and

growing fields. We look forward to seeing the important discoveries and contributions these new Rams will certainly make."











