Virginia Research Investment Fund
Call for Proposals – Round 3
Research Commercialization Advancement Plans

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<th>Activity</th>
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<td>Call for Proposals Issued</td>
<td>August 13, 2019</td>
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| Proposal Due Dates: Institutions may submit one proposal on either due date A or due date B | A. October 21, 2019  
B. January 13, 2020 |
| Award Announcement                            | A. December 10, 2019  
B. TBD, March-April 2020 |
| Estimated Start Date                          | A. January 1, 2020  
B. TBD, April-May 2020 |
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Virginia Research Investment Fund

Commercialization of Academic Research; Economic Development

In recent years, several Virginia governmental entities have focused on the relationship between the commercialization of academic research and economic development. Current Governor Northam issued “A Comprehensive Economic Development Policy for the Commonwealth” (the Comprehensive Policy) on December 7, 2018. Former Governor McAuliffe issued Executive Orders #23 and #26, regarding the establishment of the New Virginia Economy workforce initiative, strategic plan and steering committee. The State Council of Higher Education for Virginia issued The Virginia Plan for Higher Education. The General Assembly created the Virginia Initiative for Growth and Opportunity in Each Region (GO Virginia), the Virginia Research Investment Fund (VRIF) and the Virginia Research Investment Committee (VRIC).

Statutory Purpose and Goals

The 2016 Virginia General Assembly passed legislation to support the academic research enterprise in the Commonwealth, creating the Virginia Research Investment Fund (VRIF) and an awarding body, the Virginia Research Investment Committee (VRIC). Prospective applicants are encouraged to review the amended statutes in full.

Study to Assess Virginia’s Research Assets

In 2017, SCHEV, on behalf of the Virginia Research Investment Committee, launched a comprehensive study to assess the Commonwealth’s research assets, including those at its public universities, federal research facilities and private-sector companies. SCHEV retained TEConomy Partners, LLC, to conduct the study, which was completed in January 2018. A final report and three detailed analyses are available on the right side bar here.

The third detailed analysis at the link above entitled, “Phase II – Environmental Scan of University Technology Transfer, Commercialization and Industry Partnership Activities,” includes 34 recommendations related to technology transfer in Virginia.

That is the focus of this Round 3 grant competition.

Virginia Research Investment Committee

The Virginia Research Investment Committee (VRIC) is charged by statute to evaluate applications, taking into account the review, scoring or prioritization by a panel of peer reviewers, and then to decide whether to approve an application for an award of a grant from the Fund (§23.1-3133 E & F).

Membership on VRIC is established by §23.1-3132. The Committee consists of five ex officio members and four non-legislative citizen members who are also members of the Virginia Growth and Opportunity (GO Virginia) Board.

Ex officio members:
- Director of the Council – Peter Blake (Chair)
- Secretary of Commerce and Trade – Brian Ball
- Secretary of Finance – Aubrey Layne
- Staff Director of the House Appropriations Committee – Robert Vaughn
- Co-Directors of the Senate Finance Committee – April Kees and Jason Powell
Citizen members from GO Virginia:
- James “Jim” Dyke (appointed by the Governor)
- Heywood Fralin (appointed by the Senate)
- Doug Juanarena (appointed by the Governor)
- Todd Stottlemyer (appointed by the House of Delegates)

Committee members’ terms on VRIC are coincident with their terms in office and their terms on the GO Virginia Board, respectively.

**Best Practices and Shared Values in Principled Grantmaking**

To maintain public trust, these shared values drive VRIC best practices in principled grantmaking and form the foundation for the guidelines that govern the VRIF proposal, peer review and award processes. These shared values closely follow the core values of the National Institutes of Health.

**Expert Assessment:** Expertise on peer review panels will be suitable for evaluating the potential impact of the proposed work. No proposals will be funded that were not favorably evaluated by a peer review panel.

**Transparency:** Decisions for awards will be made solely using published review criteria.

**Impartiality:** Inappropriate influences will be removed from the review process. Award decisions will be rendered without the influence of conflicts of interest or the appearance of conflicts of interest. Awards will be made without bias or predisposition, either personal or professional. Awards will not be made based on predetermination.

**Fairness:** All applications will be evaluated using the same review processes. Decisions will be rendered based on information included in the proposal. *After a call for proposals is issued for a round of funding, all conversations between institutions/researchers and VRIC members about specific projects will cease.*

**Privacy Protection for Applicants and Peer Review Panel Members:** Peer review panel members and VRIC members will honor the spirit of the FOIA exclusions and closed meeting allowances for VRIF processes to ensure the privacy protection of applicants and peer reviewers.

**Virginia’s Freedom of Information Act and Open Meetings Law**

**Introduction**
The Virginia Freedom of Information Act (FOIA) does not provide the same protection from exposure as federal Sunshine Laws for unfunded or funded grant proposals. Applicants should consult with their institution's counselor from the Office of the Attorney General.

**Required Action:** Applicants must make a written request for protection, identifying with specificity the data, information or other materials for which protection is sought and stating the reason why protection is necessary. Please follow the directions below.
Description of FOIA Exclusion for VRIF
The Virginia Freedom of Information Act (FOIA) as codified at Va. Code §2.2-3705.6 Item 28 addresses protection for proposals submitted to VRIC. Please read the entirety of Item 28, available here.

The statute allows only the following information contained in a public record to be excluded from the mandatory disclosure provisions: Information relating to a grant application, or accompanying a grant application, submitted to the Virginia Research Investment Committee, to the extent that such records would reveal:

1. Trade secrets as defined in the Uniform Trade Secrets Act (§59.1-336 et seq.), disclosure of which would be harmful to the competitive position of a party to the grant application.
2. Financial information of a party to the grant application that is not a public body, including balance sheets and financial statements, that are not generally available to the public through regulatory disclosure or otherwise, disclosure of which would be harmful to the competitive position of a party to the grant application.
3. Research-related information produced or collected by a party to the grant application in the conduct of or as a result of study or research on medical, rehabilitative, scientific, technical, technological or scholarly issues, when such information has not been publicly released, published, copyrighted or patented, disclosure of which would be harmful to the competitive position of a party to the grant application.

The statute requires that the request for protection by applicants occur at the time the materials are submitted to VRIC.

Item 28 also gives VRIC the authority to approve or deny the request for protection.

Directions for Requesting Protection from Mandatory Disclosure
Applicants should submit two versions of their application packet. In one version, applicants should redact the information for which protection is sought. For each redaction, applicants should indicate (in the margin, via comments added to a pdf or on a separate cover sheet) the reason why protection is necessary, keeping in mind that the statute allows three types of information to be protected when disclosure would be harmful to the competitive position of a party to the grant application.

SCHEV staff will notify applicants within two weeks of submission whether their request has been approved. If the request was not approved, SCHEV staff will work with applicants to navigate a path to protection or withdraw the application.

SCHEV Response to FOIA Request
In the event that SCHEV receives a FOIA request, the decision regarding what, if any, information is to be withheld from disclosure pursuant to the Virginia Freedom of Information Act rests within the sole discretion of the SCHEV FOIA officer, SCHEV staff, the VRIC Chair and SCHEV’s Attorney General representative. It is anticipated that the redacted version of the application would be released, without regard to whether the proposal was funded or not. SCHEV staff will inform the lead applicant institution the extent of the information released in response to the FOIA request.

Description of Open Meetings Law Exclusion for VRIF
Virginia’s open meetings law is codified at Va. Code §2.2-3711, “Closed meetings authorized for certain limited purposes.” Item A.48 addresses the requirements for closed meetings of the Virginia Research Investment Committee. The full text is available here.
Description of Funding Opportunity

Eligible Applicants
Eligible lead applicants are public institutions of higher education in Virginia.

Limited Submission
Each public institution of higher education may submit one proposal as lead applicant. Institutions can participate as a partner in unlimited additional applications. Two due dates are offered to provide an option for institutions desiring additional time to develop a proposal. No advantage will accrue to institutions submitting on the earlier due date.

Type of Activities
The purpose of this grant competition is to support public institutions to implement best practices for streamlining the commercialization of the products of university research.

Applicants should propose activities that align with recent reports and recommendations related to advancing and enhancing the transformation of university practices for commercializing the products of university research. Applicants are encouraged to review the reports listed below and propose to use grant funds to implement at their institutions recommendations and best practices contained in the reports.

- TEConomy Partners Detailed Analysis: Phase II – Environmental Scan of University Technology Transfer, Commercialization and Industry Partnership Activities: Practices, Policies, Organization and Opportunities to Advance (January 2018); see Appendix A of this Call for Proposals for a synopsis of the recommendations, expected outcomes for the recommendations keyed to each stage of commercialization, and recommendations that are not applicable to this competition
- University of Michigan Economic Growth Institute: Maximizing Innovation and Technology Commercialization of Federal Research Investments (March 2019)

If an applicant wishes to propose to implement a best practice that is not contained in these reports, applicants should cite the source and provide a link.

Award Type and Amount
Institutions are eligible to request grant amounts based on their total research expenditures for FY2019. If FY2019 data is not yet available, please use FY2018 expenditure data.

- Research expenditures over $100 million: up to $400,000
- Research expenditures between $25 million and $100 million: up to $200,000
- Research expenditures under $25 million: up to $100,000

Funds will be awarded in the form of a grant, with a Memorandum of Understanding between the State Council of Higher Education for Virginia and the lead institution.

Matching Funds Required
A 1:1 match is required; see below for details.
Period of Performance
Grant periods may be proposed ranging from 12 to 24 months.

The grant period for applications submitted by October 21 will begin on or about January 1, 2020. The grant period for applications submitted in early 2020 will begin around May 2020.

Application Contents and Submission Information

Application Contents
Please use the proposal template provided below.

- Proposals may be single spaced.
- Font must be either Times New Roman 12 pt. or Arial 11 pt.
- Font for figures, tables, formulas and diagrams can be reduced no smaller than Times New Roman 10 pt. or Arial 9 pt.
- Margins, in all directions, must be at least an inch; margins for illustrations, graphics, diagrams, tables or figures that take up a full page may be reduced no smaller than half an inch.
- Inclusion of links to additional information is allowed; however, reviewers are not required to follow the links or consider the additional information in the review of applications.
- Pages should be numbered on the bottom right.
- Inclusion of other information in headers or footers is at the discretion of the applicant.

Proposals should include the following elements:

Cover sheet
Please include:

- Name and contact information for lead institution
- Names of any partners
- Length of requested grant period
- Amount of funds requested
- Estimated amount of matching funds (must be at least 1:1)
- Printed name, title and signature of authorized signer

Narrative
Proposal narratives must include the sections listed below in the same order and with identical headings. No other documents or attachments are allowed. If submitted, unallowable attachments will be removed prior to review.

- Executive Summary: (1 page limit; will be published on website and used for press release if proposal is funded)
- Project Description (7-page limit; suggested length for each section is listed below):
  - Outcome(s): State the expected outcome(s) for your project; should be concise, specific, measurable and achieved by the end of the grant period (1/2 page)
  - Brief History: Describe the history of the activities you are proposing to improve and how you reached the decision to prioritize the solution(s) described below (1 page)
  - Problem or Gap: Describe the problem or gap you are trying to solve through the grant activities (1 page)
Solution: Describe the solution; include your plan of work and the design of the activities to be undertaken during the grant period; please ensure that the activities are designed to address and solve the problem(s) or gap(s) identified in the previous section (4 pages)

Milestones and Timeline: Set your progress and/or outcome milestones; state the date each will be achieved (1/2 page)

Conclusion: State the key reasons your proposal should be funded (state your case in one or two sentences)

Budget and Budget Narrative
Please provide a detailed budget for each year of the grant period and cumulatively. The detailed budget should reflect planned expenditures of grant funds and the required 1:1 matching funds. Therefore, if you are requesting $200,000, your budget should total at least $400,000.

Budgets will be accepted in any format (for example, a format published by an institution’s office of sponsored programs or a budget extracted from an institution’s electronic research administration portal) that includes all the usual direct cost budget categories: salaries/wages, benefits, travel, supplies, other direct costs, subrecipients (subawards or contracts to collaborating entities or vendors), etc.

VRIF funds cannot be used for indirect costs.

VRIF funds cannot be used to supplant funding that currently supports the institution’s research commercialization efforts.

The amounts for each budget line item must be documented and justified in the budget narrative. For proposals that contain a subaward(s), each subaward must include a separate budget narrative. There is no page limit for the budget narrative.

Matching Funds Guidelines
The budget narrative should include an explanation of the source(s) of matching funds.

Match requirements:

- Commitment of a 1:1 match is a criteria for eligibility, rather than a review criteria (i.e., additional points will not be awarded for commitments of greater than a 1:1 match; however, applicants can note in their proposals or budget narratives an estimate of the total cost of the project and an indication of the total match that might be expended during the grant period).
- Unrecovered indirects can be counted toward the match (as calculated using the basis in the institution’s negotiated indirect agreement).
- Grantees cannot count toward the match grant awards from VBHRC, CHRB, CIT, Tobacco Commission, GO Virginia, Virginia Economic Development Partnership.
- The matching funds must be in-hand at time of award (or committed as documented by a legally binding grant award or pledge; applicants must identify which funds are in-hand and which are pledged).
- If the match is another grant, that grantmaker’s terms and conditions or authorizing legislation must not prohibit use of those funds as a match.
- If the match is another grant, the nexus between the two projects must be clear (as determined by the VRIF peer reviewers).
- Expenditure of matching funds must be tracked and reported in progress reports.
- The commitment of matching funds is legally binding and is subject to audit.
The signature of the applicant’s authorized signer indicates that the Vice President/Provost for Research (or equivalent, or designee) has conducted due diligence to ensure the offered match complies with these guidelines.

**Application Submission**

The full proposal, the corresponding redacted proposal (see FOIA section, above) and an Excel budget spreadsheet (if used) should be submitted via a single email to the SCHEV Associate for Research Investment, lynnseuffert@schev.edu. One pdf containing the full proposal and one pdf containing the redacted proposal is preferred. Please name the attachments so that the Associate can readily distinguish the redacted proposal and also determine that the application packet is complete. If applicants are not submitting a redacted proposal because the application includes no information for which protection is sought, please state that in the email.

**Due dates for proposals:** October 21, 2019 and January 13, 2020.

**Application Processing, Review and Award**

Upon receipt via email of an application package, SCHEV staff will respond by return email within two business days to confirm receipt.

Review of applications is a three-stage process. The statutes that created VRIF state the criteria to be considered.

The first stage is an administrative review by SCHEV staff to ensure that proposal packets are complete and conform to administrative requirements in this Call for Proposals.

The statute requires that conforming applications be assigned to external peer reviewer(s) with recognized science and technology expertise. The reviewer(s) will comment on the application, including perceived strengths and weaknesses.

Following peer review and in preparation for the third stage of review, SCHEV staff may conduct additional due diligence and/or ask applicants for clarifying information.

SCHEV staff will prepare a summary statement for each proposal that includes information such as the reviewers’ comments, a summary of strengths and weaknesses, or other summary highlights of the peer review process.

In compliance with Va. Code §23.1-3133 E, SCHEV staff will forward to VRIC any proposal receiving a favorable evaluation.

The third stage is review by VRIC. In compliance with Va. Code §2.2-3711, “Closed meetings authorized for certain limited purposes,” these meetings will be closed to the public. VRIC members will review the proposals, starting with the comments of the peer reviewer(s) and then adding their expertise and knowledge of the statewide impact and contribution the projects might have.

VRIC will then hold a public meeting where a formal vote will be taken to determine which proposals will be funded. This meeting might occur directly following the closed meeting or on a different date.
Finally, per statute, all decisions by VRIC shall be final and not subject to further review or appeal. The Governor may announce any award approved by the Committee.

**Reporting Requirements**

**Financial Reports**
Financial reports are due 30 days after the end of the grant period. SCHEV will accept reports generated from an institution’s accounting system reporting function.

The reports must include information regarding the total amount awarded, the amount forwarded to the institution at the beginning of the grant period, the amount spent and the amounts remaining for each budget category and for the same budget categories for each subaward. Reports showing the same information for matching funds are also required.

**Technical Narrative Progress Reports**
Technical progress reports in narrative form will be due 30 days after the end of the grant period.

In addition, grantees are expected to share documents they create, such as new licensing agreements, policies and procedures, etc.

There is no required template for these reports. Grantees should describe progress on the grantee’s proposed milestones and adherence to the timeline.

**Reports Due Upon Request for No-Cost Extension**
Requests for no-cost extensions should be made at least sixty (60) days prior to the desired effective date of the requested change.

Grantees will be required to submit reports at the time of a no-cost extension request. In addition to the reports, the request should provide a brief narrative justification for the extension, length of requested extension (maximum six months), amount of unexpended balance and a timeline for activities and expenditure of the remaining funds.

**Award Administration**

SCHEV staff would like to build a relationship with grantees and foster a collaborative approach to addressing issues and removing any roadblocks that arise.

For details regarding post-award revisions that require prior approval, along with other conditions of award, please see Appendix A: Terms and Conditions of Award, specifically Attachment 1. Special Terms and Conditions.
Appendix A: Synopsis of Opportunities to Advance Commercialization Identified by TEConomy Partners

Stage 1: Discovery to IP Creation

Outcomes for Stage 1 include:
- Invention disclosure
- Research collaboration
- Advance to next stage or return to inventor

Recommended Improvements:

1. Work with university leadership to clarify that university policy and goals for university technology transfer and commercialization do not include revenue maximization – and develop a funding mechanism for technology commercialization activities that does not rely on funds derived from a portion of earned licensing revenue.
2. Set out clear metrics for measuring value creation that may include revenue generation – but which include other measures as well. Definitions used by the Association of University Technology Managers should be deployed, where possible. Measures could include:
   - numbers of startups formed
   - number of commercialization licenses or similar agreements
   - regulatory milestones achieved by products under development in startups or licensees
   - amount and source of investment capital raised by startups
   - evidence of valuation increases in university startups based on institutional investors or other external sources
   - amounts of square footage occupied, jobs, average salaries, local and state taxes paid, and related economic indicators based on startup activities
3. NA for this competition; requires state action.
4. Create shared regional and/or statewide programs for entrepreneurial training, business plan competitions, and start-up company residencies for graduate students/post-docs. As feasible, include “invention prospecting” initiatives within the scope of these programs by providing proactive “invention prospecting” interactions between technology transfer experts and academic researchers.
5. NA for this competition; requires state action.
6. Annual or bi-annual regional or statewide innovation showcases and pitch events should be offered to get more Virginia university researchers engaged and, as importantly, to announce to prospective industry and investor partners that Virginia universities are “open for business.”
7. NA for this competition; a new competition with this focus is under development.
8. Technology transfer offices in Virginia should enhance their efforts to create and share standard invention management and translational research/commercialization process maps (with as much specificity as feasible regarding time frames for key decisions, key decision makers, contact information, and related details).
9. Universities should develop criteria (with time frames) for offering to release invention disclosures to the inventor(s) in cases where it is not prepared to invest in patenting, marketing or licensing the invention which is the subject of the invention disclosure.
10. Ensure that university technology commercialization offices have mechanisms for seeking and considering external expert input in formulating and managing their strategies for seeking IP protection.

11. Create budget lines to allow university technology commercialization offices to pursue more “at-risk” patent filings, including full utility patents and international patents, where careful vetting and opportunity analysis indicates that such investment is justified.

12. Include patent strategy expertise and criteria for industry advisory boards, boards of directors, and other expert bodies advising technology commercialization offices.

13. Examine how to address the concern of ensuring Virginia public research universities can make use of the sovereign immunity defense in protecting their IP claims, which are available to public research universities in other states.

Stage 2: Market-Driven Translational Research

Outcomes for Stage 2 include:

- Market assessment
- Proof-of-concept projects
- Intellectual property filing (patent, copyright, trade secret, open access, etc.)

Recommended Improvements:

14. Explore and pursue funding opportunities to develop capacities throughout Virginia’s universities to engage with business, customer, patient, regulatory, and related issues critical in advancing the commercialization of university research inventions.

15. Develop mechanisms to identify networks of alumni, community members, and related expert stakeholders willing to partner with technology commercialization offices in translational research and early stage technology de-risking initiatives.

16. NA for this competition; a new competition with this focus is under development.

17. The Boards of the non-profit corporations administering the technology commercialization function at each university in Virginia should be expanded to maximize engagement by representatives of business, industry, entrepreneurs and investors which align well with the respective university’s research and economic development focus.

18. Develop a shared network of Virginia university alumni with specific technology area domain expertise, market knowledge and entrepreneurial management skills that all universities can tap. Feature showcase events for this alumni network at different locations across the Commonwealth that represent technologies being advanced across multiple universities.

19. Consider development of regional technology commercialization resource centers in areas where a shared resource could be particularly useful in creating a critical mass of deal flow, translational research networks and resources, investor and partnership development initiatives, and technology development and deployment initiatives focusing on regional economic development priorities and industry clusters. A pilot initiative in Norfolk serving Old Dominion University, Norfolk State University, and the Eastern Virginia Medical School is suggested due to the proximity of these institutions, their expressed desire to explore mechanisms to partner more effectively in technology commercialization and in innovation and entrepreneurship, and their shared focus on leveraging innovation and research assets to help drive economic development in their region.
Stage Three: Licensing and New Firm Creation

Outcomes for Stage 3 include:
- “Investment grade” ready technologies
- # of licenses executed: total and with start-ups, in-state existing business and out-of-state existing businesses
- Regulatory milestones achieved by products under development in startups or other licensees
- Amount and source of investment capital raised by startups
- Evidence of valuation increases in university startups based on institutional investors or other external sources
- Startup economic footprint: square footage occupied, sales generated, jobs, average salaries, local and state taxes paid, and related economic indicators
- Sales generated by licensing generated by in-state existing businesses

Recommended Improvements:

20. Pursue efforts to further standardize term sheets and boilerplate agreements – and post examples of these standardized terms on university-related websites. Efforts are underway across Virginia’s universities to create common templates and this is a very promising development that needs to be vetted with industry and venture capital representatives before it is finalized.

21. Virginia universities should be encouraged to share their knowledge and access to expertise available to them via industry advisory boards, board members of technology commercialization 501(c)(3) organizations, alumni networks, and specialized consulting resources to provide confirmation, reassurance and reinforcement of the objective and high-quality approach to transactions undertaken by technology transfer offices in Virginia.

22. A strategic plan should be developed identifying milestones and criteria for launching, growing, and supporting accelerator programs so that all Virginia universities have access and engagement with the programs and facilities. Startup acceleration programs are critical factors in increasing the number, success, and rate of growth of startup companies in Virginia. Accelerators involve facilities, core labs and equipment, proof-of-concept and seed investment capital, access to shared services, management talent, and related resources. Funding in this competition can be used only for the strategic plan and not the operation of an accelerator, proof-of-concept or seed funding, etc.

23. Business schools are increasingly interested in incorporating major classroom and experiential educational activities in areas related to technology assessment, business planning and finance, company formation and management, and venture capital investments. More mutually beneficial linkages should be established involving technology commercialization offices and business schools.

24. A “how-to” implementation strategy should be developed and shared with all Virginia universities advising them on the organization and management of university-affiliated seed funds.

25. University technology transfer offices should be encouraged to develop networks and creative approaches to partnering with philanthropic organizations, angel networks, alumni networks, and others willing to provide seed investment capital in support of launching early stage startup companies.

26. NA for this competition.
Stage 4: Applied Research Collaborations with Industry Partners

Outcomes for Stage 4 include:
- Industry consortium – funding, # of projects
- Open innovation partnerships with industry, NGOs, others – funding, # of projects
- Individual company specific application or technology solution – funding, # of projects

Recommended Improvements:

27. Each Virginia university, at a minimum, should develop and market standard term sheets for sponsored research, FAQ pages, boilerplate research agreements, and other tools and information sources designed to “demystify” the process for industry in developing collaborative research agreements with universities. Even more impactful would be to have common templates for industry sponsored research used by all Virginia research institutions, including master agreements, which have been vetted with industry representatives.

28. To promote the wider university strengths found across Virginia and raise Virginia’s ability to compete for master agreement relationships with industry, consider creating “multi-university access” to master agreement relationships negotiated by individual Virginia universities. This unique collaborative approach can work best by having a primary university that maintains the overall relationship, but reaches out to other universities around specific needs of the company that are beyond their research capabilities. An effort in this regard is currently being developed with multi-university collaboration with MITRE, who manages a number of Federal Funded Research and Development Centers, spurred by MITRE’s interest in broadening its access to university research expertise as it serves its national security clients.

29. A key complement to opening up master agreements for use by other Virginia research universities is the development of a portal for industry seeking to identify university research and innovation resources and utilize this mechanism to identify and catalyze applications among universities (either solo application or in collaboration with other campuses) in Virginia for competitive industry center or consortium grants.

30. Create research business development initiatives on Virginia campuses designed to identify and communicate about core areas of strength and capacity in research and innovation, and to market those capacities and opportunities to prospective industry research funders. These efforts should be especially targeted to identifying strengths, facilities, and key competencies which align with key industry sectors in Virginia.

31. Address the growing expectation by industry that when a company is solely funding research it should be the beneficiary of any intellectual property generated. This has led to a growing effort across universities to advance predictable and streamlined processes for industry to take ownership of intellectual property from sponsored research with universities, and for straight-forward contracting processes. For instance, the University of Minnesota, through an approach called Minnesota Innovation Partnerships, or MN-IP, allows a company sponsoring research at the university to pre-pay a fee and receive an exclusive worldwide license at a set royalty rate. The University of Minnesota noted that in its first four years the program resulted in 83 partnerships to develop products and services across industries like composite materials, pharmaceuticals and medical devices, with partnering companies ranging from small local startups to large multinationals. Penn State has gone further by allowing the company sponsoring the research an option to request ownership of Intellectual Property (IP) resulting from the sponsored project, if all the Penn State researchers involved in the project agree to release the IP.

32. A strategic research business development approach should also focus Virginia universities on becoming and remaining the “research partner of choice” for startup companies launched by Virginia universities. This should include both streamlined agreements and favorable terms for sponsored research with university start-ups. The success and rate of growth of
university startups can be advanced by maintaining close research and development relationships between the companies and the universities from which they emanated. Further, as these companies grow and achieve critical business development and financing milestones, they can become the next generation of key corporate partners with universities – funding research, hiring faculty as consultants, providing internships to students, recruiting university graduates into their workforce, engaging in open innovation – all of which create a robust innovation ecosystem and a “sticky environment” in which these companies are more likely to remain as they grow.

33. NA for this competition; requires state action.
34. NA for this competition.
Appendix B: Assurances and Certifications – Terms and Conditions of Award

Assurances and Certifications

The Authorized Organizational Representative (AOR) signing the signature page is assuring and certifying the following:

Assurance Regarding Freedom of Information Act Exclusion: The Virginia Freedom of Information Act does NOT completely protect unfunded or funded grant proposals from exposure. The AOR is assuring that the applicant institution has consulted with the project team and the attorney general representative, if necessary, regarding whether a written request for protection is being made to the Virginia Research Investment Committee in accordance with Va. Code §2.2-3705.6, item 28. If the applicant is invoking the exclusion contained in item 28, the AOR is assuring that a redacted version of the application packet is being submitted that identifies with specificity the data, information or other materials for which protection is sought and states the reason why protection is necessary. The Committee shall determine whether the requested exclusions from disclosure are necessary to protect the trade secrets, financial information or research-related information of the applicant. The Committee shall make a written determination of the nature and scope of the protection to be afforded by it under the Va. Code.

Certification Regarding Organizational Support: The AOR is certifying that there is organizational support for this proposal, that matching funds will be secured as described in the proposal and that the Vice President for Research (or equivalent, or designee) has conducted due diligence to ensure the offered match complies with the guidelines in the Call for Proposals. Further, if the proposed plan for matching funds does not materialize, the AOR is certifying that the institution will submit a revised plan to comply with the required 1:1 match.

Certification Regarding Collaborating Entity AOR Approval: The applicant AOR is certifying that the AORs (or equivalent) of all collaborating entities have made the same assurances and certifications and that documentation of such exists.

Certification Regarding State Funds: The AOR is certifying that the organization understands that VRIF is awarding state funds. The organization will comply with all rules and regulations regarding state funds, including but not limited to the Commonwealth Accounting Policies and Procedures Manual, the Virginia Public Procurement Act (when applicable) and the Library of Virginia’s Virginia Public Records Management Manual.

Certification Regarding Conflict of Interest: The AOR is certifying that the organization has implemented and is enforcing a written policy on conflicts of interest in research and that, to the best of his/her knowledge, all financial disclosures required by the conflict of interest policy were made; and that conflicts of interest, if any, were, or prior to the organization’s expenditure of any funds under the award, will be, satisfactorily managed, reduced or eliminated in accordance with the organization’s conflict of interest policy.

Certification Regarding Compliance with the Animal Welfare Act. The AOR is certifying that proposed projects involving use of any vertebrate animal for research or education will be approved by the submitting organization's Institutional Animal Care and Use Committee (IACUC) before or substantially concurrent with an award. If the involvement of animals is indefinite at the time of award, the AOR is certifying that, prior to conducting any animal activities, and prior to expending any grant funds for those animal activities, IACUC approval will be obtained. It is an institutional responsibility to ensure that the research described in the application is congruent with any corresponding protocols approved by the IACUC.
Certification Regarding Compliance with the Common Rule. The AOR is certifying that proposed projects involving research with human subjects will ensure that subjects are protected from research risks in conformance with the relevant federal policy known as the Common Rule (Federal Policy for the Protection of Human Subjects). All projects involving human subjects must either (1) have approval from the organization's Institutional Review Board (IRB) before or substantially concurrent with issuance of a VRIF award or (2) maintain documentation that the IRB has declared the research exempt from IRB review, in accordance with the applicable subsection, as established in section 101(b) of the Common Rule.

If human subjects research is anticipated within the period of the award but definite plans for involvement of human subjects cannot be described in the application, then the AOR is certifying that, prior to the involvement of human subjects, the project will obtain IRB approval or exemption. It is an institutional responsibility to ensure that the human subjects research described in the application is congruent with any corresponding protocols approved by the IRB.

Certification Regarding Education in the Protection of Human Research Participants. The AOR is certifying that, if the proposed project involves research with human subjects, all senior/key personnel involved in human subjects research have received training in the protection of human subjects. Senior/key personnel include all individuals responsible for the design or conduct of the study, including senior/key personnel of collaborating partner entities or alternate performance sites if they are participating in research that involves human subjects.

Certification Regarding Responsible Conduct of Research: The AOR is certifying that the institution has a plan to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduates, graduate students and postdoctoral researchers who will be supported by VRIF to conduct research.
Terms and Conditions

DO NOT SIGN AND SUBMIT AT TIME OF APPLICATION

Grantor and grantee agree that this MOU will be performed in accordance with the following:

1. The statement of work and budget for this award are as specified in the grantee’s proposal submitted ______ (date) ____________ and incorporated herein by reference. In its performance of the statement of work, grantee shall be an independent entity and not an employee or agent of grantor.

2. Matters concerning the performance of this award should be directed to the appropriate party's contact, as shown in Attachments 3A & 3B.

3. Matters concerning the request or negotiation of any changes in the terms, conditions or amounts cited in this award agreement, and any changes requiring prior approval, should be directed to the appropriate party's Contact, as shown in Attachments 3A & 3B. Any such changes made to this MOU require the written approval of each party's Authorized Official as shown in Attachments 3A & 3B.

4. Incorporated into this MOU by reference are the VRIF Call for Proposals, the entirety of the grantee’s application packet including the assurances and certifications, the special terms and conditions in Attachment 1 and the general terms and conditions in Attachment 2.

By an Authorized Official of Grantor

(To be signed only if award is made)

______________________________
Signature

______________________________
Printed Name

______________________________
Title

______________________________
Date:

By an Authorized Official of Grantee

(To be signed only if award is made)

______________________________
Signature

______________________________
Printed Name

______________________________
Title

______________________________
Date:
Attachment 1: Special Terms and Conditions

Applicability
The terms and conditions in the MOU and all attachments apply directly to the grantee and also apply to collaborating entities, subrecipients and contractors. The grantee is accountable for the performance of the project, program or activity; the appropriate expenditure of funds under the award by all parties; and all other obligations of the grantee, as cited in the MOU and all attachments.

Site Visits
VRIC members and/or staff may conduct site visits during the course of the grant period.

Changes
The changes listed below require the prior approval of the grantor. Requests should be directed to the grantor's Contact, as shown in Attachments 3A & 3B.

- Changes to the scope of the project
- Changes to milestones and timelines that impact the schedule for disbursement of funds
- Changes to collaborating entities
- Changes to key personnel named in the approved proposal
- Reduction of effort of the PI or any Co-PI of of 10% or more from the level in the approved proposal
- Plans for continued progress during extended absence of the PI or any Co-PI
- Changes to the budget detailing the planned expenditure of general fund amounts resulting in a deviation of 20% or more in any budget category; the request must include the current allocation of resources along with specific detail and justification for the reallocation

No-cost extensions require the approval of the grantor. Requests for a no-cost extension should be addressed to and received by the Contact, as shown in Attachments 3A & 3B, not less than sixty (60) days prior to the desired effective date of the requested change. See “Reporting Requirements” section of the Call for Proposals.

Disbursement of Funds, Accounting and Audit
After receiving a written request from the Virginia Research Investment Committee, grantor will authorize the State Comptroller and the Virginia Department of Planning and Budget to release the first payment to the grantee. The first payment will be sufficient for the grantee to achieve the first milestone on the timeline included in the grantee’s proposal.

After initial disbursement, subsequent payments will be contingent upon successful performance against key milestones and other performance standards outlined in the proposal. Non-compliance with the terms and conditions of this award, including reporting requirements, and/or failure to achieve milestones on the approved timeline could result in a hold on disbursement of additional funds until the grantee is in compliance.

All payments shall be considered provisional and subject to adjustment within the total estimated cost in the event such adjustment is necessary as a result of an adverse audit finding against the grantee.

Award monies not expended by the end of the period of performance must be returned.

The grantee will oversee the expenditure of all grant funds by all parties and ensure that all funds are expended in strict compliance with state rules, regulations and guidelines, the terms
and conditions of this MOU, professional accounting standards and all applicable state laws and
requirements.

The grantee will maintain systematic accounting records of all expenditures relating to this
award, including the supporting source documentation. Records will be retained by the grantee
in accordance with Library of Virginia Record Retention Policy.

Records will be available for inspection and/or audit by SCHEV, the Virginia Auditor of Public
Accounts or other appropriate entity.

**Transfer of Award or Change of Principal Investigator**
If the Principal Investigator leaves the grantee institution during the grant period, the grant will
not be transferred to a new institution. The grantee institution will have the opportunity to
propose a new Principal Investigator, subject to approval of SCHEV staff and the Chair of the
VRIC. If an agreement cannot be reached regarding assignment of a new Principal Investigator,
a collaborating institution, if any, could propose to become the lead grantee. If no agreement
can be reached, the award will be terminated and unexpended and unobligated funds must be
returned.

**Reporting**
Report type and due dates are required as detailed in the Call for Proposals.

**Future Applications to VRIF**
Award recipients and their partners who are delinquent in any VRIF obligation are not eligible to
apply for or receive future VRIF funding until obligations are resolved.

**Termination of Award**
SCHEV may terminate this award in the event of non-compliance with the terms and conditions
of this MOU, significant lack of progress including failure to achieve milestones on the timeline
set forth in the proposal, or other extenuating conditions. In the case of termination, the grantee
will return any unexpended and unobligated funds.

**Acknowledgments**
Professional publications or presentations resulting from activities supported by this award must
acknowledge the Virginia Research Investment Fund.

Acknowledgments of the Virginia Research Investment Fund are appreciated on poster
presentations, printed programs, news releases, web news, e-mail alerts or announcements
regarding grant-funded activities.
Attachment 2: General Terms and Conditions

A. **VENDORS MANUAL:** NA

B. **APPLICABLE LAWS AND COURTS:** This contract shall be governed in all respects by the laws of the Commonwealth of Virginia and any litigation with respect thereto shall be brought in the courts of the Commonwealth. The agency and the grantee are encouraged to resolve any issues in controversy arising from the award of the contract or any contractual dispute using Alternative Dispute Resolution (ADR) procedures (Code of Virginia, §2.2-4366). ADR procedures are described in Chapter 9 of the Vendors Manual. The grantee shall comply with all applicable federal, state and local laws, rules and regulations.

C. **ANTI-DISCRIMINATION:** By signing this contract, the grantee certifies to the State Council of Higher Education for Virginia that they will conform to the provisions of the Federal Civil Rights Act of 1964, as amended, as well as the Virginia Fair Employment Contracting Act of 1975, as amended, where applicable, the Virginians With Disabilities Act, the Americans With Disabilities Act and §2.2-4311 of the Virginia Public Procurement Act (VPPA). The grantee shall not discriminate against any recipient of goods, services or disbursements made pursuant to the contract on the basis of the recipient's religion, religious belief, refusal to participate in a religious practice or on the basis of race, age, color, gender or national origin and shall be subject to the same rules as other organizations that contract with public bodies to account for the use of the funds provided; however, if the faith-based organization segregates public funds into separate accounts, only the accounts and programs funded with public funds shall be subject to audit by the public body. (Code of Virginia, §2.2-4343 1.E.).

1. During the performance of this contract, the grantee agrees as follows:
   a. The grantee will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability or any other basis prohibited by state law relating to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the grantee. The grantee agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
   b. The grantee, in all solicitations or advertisements for employees placed by or on behalf of the grantee, will state that such grantee is an equal opportunity employer.
   c. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting these requirements.

2. The grantee will include the provisions of 1. above in every subcontract or purchase order over $10,000, so that the provisions will be binding upon each subcontractor or vendor.

D. **ETHICS IN PUBLIC CONTRACTING:** By signing this contract with the State Council of Higher Education for Virginia, the grantee certifies that their offer is made without collusion or fraud and that they have not offered or received any kickbacks or inducements from any other contractor, supplier, manufacturer or subcontractor in connection with their offer and that they have not conferred on any public employee having official responsibility for this transaction any payment, loan, subscription, advance, deposit of money, services or
anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged.

E. **IMMIGRATION REFORM AND CONTROL ACT OF 1986:** By signing this contract with the State Council of Higher Education for Virginia, the grantee certifies that the grantee does not, and shall not during the performance of the contract, knowingly employ an unauthorized alien as defined in the federal Immigration Reform and Control Act of 1986.

F. **DEBARNMENT STATUS:** By signing this contract, grantee shall certify that they are not currently debarred by the Commonwealth of Virginia from contracts for the type of activities covered by the Scope of Work/proposal, nor are they an agent of any person or entity that is currently so debarred.

G. **ANTITRUST:** By entering into this contract, the grantee conveys, sells, assigns and transfers to the State Council of Higher Education for Virginia all rights, title and interest in and to all causes of action it may now have or hereafter acquire under the antitrust laws of the United States and the Commonwealth of Virginia, relating to the particular goods or services purchased or acquired by the State Council of Higher Education for Virginia under said contract.

H. **MANDATORY USE OF STATE FORM AND TERMS AND CONDITIONS FOR IFBs AND RFPs:** NA

I. **CLARIFICATION OF TERMS:** NA

J. **PAYMENT:** See “Disbursement of Funds, Accounting and Audit” in Attachment 1: Special Terms and Conditions.

I. **TESTING AND INSPECTION:** The State Council of Higher Education for Virginia reserves the right to conduct any test/inspection it may deem advisable to assure goods and services conform to the specifications in the Scope of Work.

J. **ASSIGNMENT OF CONTRACT:** A contract shall not be assignable by the grantee in whole or in part without the written consent of the State Council of Higher Education for Virginia.

K. **PRECEDENCE OF TERMS:** The following General Terms and Conditions VENDORS MANUAL (NA), APPLICABLE LAWS AND COURTS, ANTI-DISCRIMINATION, ETHICS IN PUBLIC CONTRACTING, IMMIGRATION REFORM AND CONTRAL ACT OF 1986, DEBARNMENT STATUS, ANTITRUST, MANDATORY USE OF STATE FORM AND TERMS AND CONDITIONS (NA), CLARIFICATION OF TERMS (NA), PAYMENT (NA) shall apply in all instances. In the event there is a conflict between any of the other General Terms and Conditions and any Special Terms and Conditions, the Special Terms and Conditions shall apply.

L. **QUALIFICATIONS OF (BIDDERS/OFFERORS):** NA

M. **TESTING AND INSPECTION:** NA (duplicate of I. above)

N. **ASSIGNMENT OF CONTRACT:** NA (duplicate of J. above)

O. **CHANGES TO THE CONTRACT:** See Attachment 1: Special Terms and Conditions.

P. **DEFAULT:** See Attachment 1: Special Terms and Conditions.
Q. **TAXES:** Sales to the Commonwealth of Virginia are normally exempt from state sales tax. State sales and use tax certificates of exemption, Form ST-12, will be issued upon request.

R. **USE OF BRAND NAMES:** NA

S. **TRANSPORTATION AND PACKAGING:** NA

T. **INSURANCE:** NA

U. **ANNOUNCEMENT OF AWARD:** NA

V. **DRUG-FREE WORKPLACE:** During the performance of this contract, the grantee and subcontractors agree to provide a drug-free workplace for the grantee’s employees. Grantee will inform employees that the unlawful manufacture, sale, distribution, dispensation, possession or use of a controlled substance or marijuana is prohibited in the grantee’s workplace.

W. **NONDISCRIMINATION OF GRANTEES:** Grantee shall not be discriminated against because of race, religion, color, sex, national origin, age, disability, faith-based organizational status, any other basis prohibited by state law relating to discrimination in employment or because grantee employs ex-offenders unless the State Council of Higher Education for Virginia has made a written determination that employing ex-offenders on the specific contract is not in its best interest. If the award of this contract is made to a faith-based organization and an individual, who applies for or receives goods, services or disbursements provided pursuant to this contract, objects to the religious character of the faith-based organization from which the individual receives or would receive the goods, services or disbursements, the public body shall offer the individual, within a reasonable period of time after the date of his objection, access to equivalent goods, services or disbursements from an alternative provider.

X. **eVA BUSINESS-TO-GOVERNMENT VENDOR REGISTRATION, CONTRACTS AND ORDERS:** NA

Y. **AVAILABILITY OF FUNDS:** The parties herein understand and agree that the agency shall be bound hereunder only to the extent of the funds available or which may hereafter become available for the purpose of this agreement.

Z. **SET-ASIDES:** NA

AA. **BID PRICE CURRENCY:** NA

BB. **AUTHORIZATION TO CONDUCT BUSINESS IN THE COMMONWEALTH:** NA

   **Additional Terms and Conditions**

A. **RENEWAL OF CONTRACT:** NA

B. **ADDITIONAL INFORMATION:** NA

C. **DELIVERY POINT:** N/A

D. **eVA Business-To-Government Contracts and Orders:** NA
E. **PRIME GRANTEE RESPONSIBILITIES:** The grantee shall be responsible for completely supervising and directing the work under this contract and all subcontractors that he may utilize, using his best skill and attention.

Subcontractors who perform work under this contract shall be responsible to the prime grantee. The grantee agrees that he is as fully responsible for the acts and omissions of his subcontractors and of persons employed by them as he is for the acts and omissions of his own employees.

F. **PROPOSAL ACCEPTANCE PERIOD:** NA

G. **WARRANTY:** NA

H. **SUBCONTRACTS:** No portion of the work shall be subcontracted without prior written consent of the purchasing agency. In the event that the grantee desires to subcontract some part of the work specified herein, the grantee shall furnish the purchasing agency the names, qualifications and experience of their proposed subcontractors. The grantee shall, however, remain fully liable and responsible for the work to be done by its subcontractor(s) and shall assure compliance with all requirements of the contract.