

## Performance Progress Report

Grantee:	Virginia Commonwealth University and Virginia State University
Project Title:	Joint Degree and Research Program
Project Number:	01-79-15308
Period covered by the report:	10/01/2022-03/31/2023
Reporting period end date:	March 31
Report Prepared by:	Dr. <a href="#">Nastassja Lewinski</a> Associate Professor, Dr. <a href="#">Gregory Triplett</a> Professor, <a href="#">Rachel Wasilewski</a> Director of Strategic Pathways

### Narrative:

The initial six months of the project has primarily focused on hiring personnel to support the grant initiatives and laying groundwork for successful transition into pathway options. Since grant initiation, VCU resources both human and budget have focused on establishing relationships between partner institutions, laying the foundation for academic degree pathways, and establishing protocol and procedure for enrollment, outreach and research initiatives. Future progress will initiate spending increases that provide student support, equipment and personnel needs, and to successfully promote and recruit into the academic programs. Given the start date of October 2022 and the primary activity of research and workforce development, student financial support at both institutions will commence at the beginning of the academic year (Fall 2023). This coincides with the traditional academic cycle and allows VCU and VSU to use a cohort approach, which has proven to be a student-centered model.

### Success Stories:

Dr. [Gregory Triplett](#) was invited to speak on four separate panels at the 2023 NSBE Conference. This provided an opportunity to promote the Build Back Better initiative to thousands of individuals in support of promoting educational opportunities and R&D opportunities in Pharmaceutical Engineering within the Petersburg area. Even after a delayed start with the 2023-2024 academic year recruitment cycle, there are already students in the accelerated B.S.-M.S. program as well as graduate students funded through the BBBRC (Build Back Better Regional Challenge) grant program who will be ready to enter the workforce development in 2 years or less.

### Activity Summary:

Activity	Description	Date Completed / Timeline Management
Hiring of the Director of Strategic Pathways	<ul style="list-style-type: none"> <li>Position to build academic pathways to create human capital pipeline of graduates into pharmaceutical manufacturing industry. Position responsible for creating opportunities to increase pipeline.</li> </ul>	11/18/2022
Marketing of pharmaceutical manufacturing industry degree opportunities	<ul style="list-style-type: none"> <li>Departmental outreach to students at VCU currently qualified for accelerated BS to MS Chemical and Life Science Engineering degree.</li> <li>Notification of how to become eligible to students who are near application eligibility.</li> </ul>	01/03/2023 02/13/2023

VCU VSU Chemistry Chemical Engineering Pathway	VCU curricula pathway approved by department and dual degree agreement submitted for first round VCU approvals	03/15/2023
Partnership Initiation for Brightpoint Pathways	Initiate meeting with Chemistry and Pharmaceutical programs at Brightpoint to create additional pathways for students	03/10/2023
Attend NSBE	Present at 4 panels during NSBE and utilize opportunity to promote Build Back Better Initiatives including but not limited to recruitment of graduate students.	03/19/2023-03/25/2023
Summer REU and Graduate Fellowship	Prepare applications and launch application platform for the first round of Summer REU students and Graduate Fellowships. Advertise both opportunities.	04/21/2023
Create Repository	Set up a secure bitbucket repository for storing draft and final documents to track progress and maintain a central location for recordkeeping	1/05/2023

#### Next Steps:

Activity	Benefits/Outcome/Impacts	Date to be Completed
ODU Recruiting Visit	For recruitment of graduate level students for Goal 3	3/28/2023
VSU Recruiting Visit	For recruitment of graduate and undergraduate level students in support of Goal 3. In addition to strengthening partnership with VSU and VCU	4/11/2023
Mid-Atlantic AIChE Regional Conference Recruiting Visit	For recruitment of graduate level students per Goal 3.	4/22/2023
Finalize VSU Dual Degree Agreement	Agreement will need to be edited and approved by VSU before first student enrollment.	TBD {in progress}
Finalize CARC Dual Degree Agreements	Pathway and Agreement are in editing phase with VCU, will need submission to VCU leadership for approval and will need to go to all respective CARC institutions for final approval	TBD {in progress}
VSU Manufacturing Engineering VCU Chemical and Life Science Engineering	Course equivalencies are currently being evaluated. After course equivalencies are reviewed, pathway will need to be evaluated and agreement edited	TBD {in progress}
Brightpoint VCU Science and Chemical and Life Science Engineering	Pathway is in the editing phase. After the pathway is built, agreement will need to be edited, reviewed, and approved by both institutions.	TBD {in progress}

VCU and Richard Bland Pathway and Agreement	Set meeting with Richard Bland Personnel. Build academic pathway and write dual degree agreement	
Print Marketing	Meet with Marketing team to develop print materials to market undergraduate and graduate options toward pharmaceutical pathways	03/29/2023
Pharmaceutical Day Planning	Meet with Engineering Career Services to determine date and scope of Pharmaceutical Day	04/13/2023

### Project-specific Metrics:

Metric	Target / Milestone in GAP	Progress Update
Enrolled students in Dual Degree Track	30 Students on a rolling basis	Dual degree agreement approval is in process
Target and recruit high school students to attend VSU	30 high school graduates	Recruiting has commenced for the Fall 2023 academic calendar
Recruit URM students in Chemical and Pharmaceutical engineering programs	50 URM students by end of the grant	In addition to recruiting for academic programs, the 2023 summer research experience has started accepting students. The REU program is on track to enroll its first cohort on May 15, 2023.
Admitted Accelerated MS CLSE students	Recruit and enroll 20 Accelerated Track students	For Fall 2023, there are currently 3 admitted Accelerated MS students.
Admitted MS and PhD CLSE students	Enroll and support 20 graduate students	For Fall 2023, there are currently 2 admitted bridge MS students, 5 admitted PhD students
Student entering pharmaceutical manufacturing industry	80% of graduates are hired in the pharmaceutical manufacturing industry. 95% of students report they are prepared to enter industry.	Students are being recruited to enter programs at both institutions in Fall 2023.
R&D facilities are established	30 trained UG students on pharmaceutical manufacturing techniques. 95% of experienced UG students prepared to enter the pharmaceutical manufacturing industry. Enroll and support 20 graduate students (14 MS, 6 Ph.D.).	Research equipment is being purchased and students are being recruited to enter academic programs at both institutions in Fall 2023.

### Challenges and Mitigation:

Approval process for the academic pathways is a lengthy process. To ensure we meet the workforce development demands, we are preparing a second undergraduate pathway with VSU. We are leveraging our current graduate bridge program for students who may not have a chemical engineering background but have requisite mathematics and science background to perform competitively in the VCU Chemical & Life Science Engineering curriculum. In addition to working with VSU, we are working with additional rural colleges in the Commonwealth Alliance for Rural Colleges and the Virginia Community College System to provide pathways and opportunities for

underrepresented groups within the Commonwealth to support the workforce development channel into the Petersburg pharmaceutical industry.

Further challenges come from personnel changes within the Wilder School of Government and Public Affairs, but we are working individually to ease the transition of evaluation.

The grant was announced off cycle for academic recruiting purposes (October 2022) and while navigating the challenges of academic approval processes, we are also recruiting off cycle for a program still in approval stages. Setting accounts for VSU to use took processing time from VCU as well as from VSU, so we expect expenditures to increase significantly in the next quarter as we have laid the groundwork and framing for grant funding administration.

VCU's internal process (Office of Sponsored Programs) did not approve the VSU subward until January 2023, which delayed the start for VSU activities. VSU's internal process (Office of Sponsored Programs / Accounting) was also lengthy. To overcome these challenges, we placed our efforts on developing pathways and strategies for outreach and student recruitment.

#### **Press Engagements/Opportunities:**

Press Engagements/Opportunities		
<b>Engagement / Opportunity</b>	<b>Short Description</b>	<b>Date (MM/DD/YYYY)</b>
VSU VCU Visit  <a href="https://twitter.com/GETriplett/status/1646160222422007808?s=20">https://twitter.com/GETriplett/status/1646160222422007808?s=20</a>	Tour of facilities, meet with faculty and students	04/11/2023
<a href="https://egr.vcu.edu/news-events/news/09022022-build-back-better-regional-challenge-winner.html">https://egr.vcu.edu/news-events/news/09022022-build-back-better-regional-challenge-winner.html</a>	VCU Engineering grant announcement	09/02/2022
<a href="https://egr.vcu.edu/news-events/news/09022022-vcu-awarded-53-million-in-build-back-better-regional-challenge.html">https://egr.vcu.edu/news-events/news/09022022-vcu-awarded-53-million-in-build-back-better-regional-challenge.html</a>	VCU Engineering grant announcement	09/02/2022
<a href="https://richmond.com/news/state-and-regional/govt-and-politics/white-house-to-award-52-9-million-grant-to-va-biotech-authority/article_2617cf06-2d87-55a2-af20-e91ab05e7a77.html">https://richmond.com/news/state-and-regional/govt-and-politics/white-house-to-award-52-9-million-grant-to-va-biotech-authority/article_2617cf06-2d87-55a2-af20-e91ab05e7a77.html</a>	RTD grant announcement	9/2/2022

<a href="https://www.vsu.edu/news/2022/partner-grant-challenge.php">https://www.vsu.edu/news/2022/partner-grant-challenge.php</a>	VSU grant announcement	9/02/2022
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**Budget:**

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Total Project Amount (federal grant + match)	Federal Funding Spent:	Match Spent (cash):	Match Spent (in- kind):	Remaining	% Total Project Cost Spent
\$7,709,348.00	\$75,241.05	\$0.00	\$153,647.43	\$7,480,459.52	2.97%

**Other:**

We emphasize that the biggest challenge was the grant start date of October 2023. This is the middle of the academic calendar, after the overwhelming majority start college. In effect, this start date created an opportunity to take advantage of “planning year”, so that VCU and VSU would develop programs, recruit and enroll students, and secure equipment.